217/782-2113

"REVISED"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Archer Daniels Midland Company – Decatur Complex
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62525

I.D. No.: 115015AAE
Application No.: 96030038

Date Received: March 5, 1996
Date Issued: August 18, 2004
Expiration Date[1]: August 18, 2009

Operation of: Grain Processing Plant
Source Location: 4666 Faries Parkway, Macon County, Decatur, Illinois, 62525
Responsible Official: William Manley – Corn, Alcohol and Wastewater Treatment Plants
Kent Hadden – Bioproduct Plant, Matt Philips – East Plant,
Brad Birkholtz – West Plant, Trent Collins – Vitamin E Plant,
Troy Lancaster – Cogeneration and Water Treatment Plant

This permit is hereby granted to the above-designated Permittee to OPERATE a Grain Processing Plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: August 10, 2007
Revision Date Issued: December 6, 2007
Purpose of Revision: Minor Modification

This minor modification is to update equipment list and add newly granted construction permits.

If you have any questions concerning this permit, please contact Kaushal Desai at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:KKD:psj

cc: Illinois EPA, FOS, Region 3
USEPA

[1] This permit contains terms and conditions that address the applicability, and, if determined applicable, substantive requirements of Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. The authority for these provisions is found in these regulations and in the general authority provided to the Illinois EPA by Section 9.1 of the Environmental Protection Act (Act) and Sections 39(a) and 39.5(7)(a) of the Act, which authorize the Illinois EPA to include conditions in permits that are required to accomplish the purposes of the Act. Any such terms and conditions are specifically identified within this permit as T1 conditions. These terms and conditions continue in effect as provided by Condition 8.7 of this permit, notwithstanding the expiration date specified above, as their authority derives from Title I, as well as from Title V of the CAA.

TABLE OF CONTENTS

		PAGE
1.0	SOURCE IDENTIFICATION	5
	1.1 Source	
	1.2 Owner/Parent Company	
	1.3 Operator	
	1.4 General Source Description	
2.0	LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT	6
3.0	INSIGNIFICANT ACTIVITIES	8
	3.1 Identification of Insignificant Activities	
	3.2 Compliance with Applicable Requirements	
	3.3 Addition of Insignificant Activities	
4.0	SIGNIFICANT EMISSION UNITS AT THIS SOURCE	12
5.0	OVERALL SOURCE CONDITIONS	28
	5.1 Source Description	
	5.2 Applicable Regulations	
	5.3 Non-Applicability of Regulations of Concern	
	5.4 Source-Wide Operational and Production Limits and Work Practices	
	5.5 Source-Wide Emission Limitations	
	5.6 General Recordkeeping Requirements	
	5.7 General Reporting Requirements	
	5.8 General Operational Flexibility/Anticipated Operating Scenarios	
	5.9 General Compliance Procedures	
6.0	EMISSIONS CONTROL PROGRAMS	38
	6.1 NO_x Trading Program	
7.0	UNIT SPECIFIC CONDITIONS	48
	ADM Decatur Corn, Alcohol and Wastewater Treatment Plant	
	7.1 Mill	
	South Feed House	
	North Feed House	
	7.2 Alcohol	
	7.3 Refinery	
	7.4 Waste Treatment	

PAGE

ADM Cogeneration and Water Treatment Plant
7.5 Cogeneration
7.6 Water Treatment Plant
ADM Decatur Bioproducts Plant
7.7 Lactic Acid
Crystalline Sorbitol
Astaxanthin
Lysine/Ammonium Sulfate
Riboflavin
Threonine
Xanthan Gum
BioProducts Miscellaneous
Vitamin C
Storage Tanks
7.8 Combined with 7.7
ADM Decatur East
7.9 Receiving/Conveying
7.10 Grain Preparation and Elevator B
7.11 Soybean Extraction and Oil Refining
7.12 Textured Vegetable Protein
7.13 Flour Mills A and C
7.14 Isolate I, II, III and Industrial
7.15 Soy Protein Concentrate
ADM Decatur West
7.16 Receiving/Conveying
7.17 Soybean Processing
7.18 Soy & Corn Meal Preparation and Loadout
7.19 Hull Pelleting
7.20 Soybean Extraction
7.21 Corn Germ Processing
7.22 Corn Germ Extraction
7.23 SSL Facility
7.24 Corn Refining
7.25 Packaged Oils Plant
ADM Vitamin E Plant
7.26 Vitamin E Plant

8.0 GENERAL PERMIT CONDITIONS 142

8.1 Permit Shield
8.2 Applicability of Title IV Requirements
8.3 Emissions Trading Programs
8.4 Operational Flexibility/Anticipated Operating Scenarios
8.5 Testing Procedures
8.6 Reporting Requirements
8.7 Obligation to Comply with Title I Requirements

PAGE

9.0 STANDARD PERMIT CONDITIONS 147

9.1 Effect of Permit
9.2 General Obligations of Permittee
9.3 Obligation to Allow Illinois EPA Surveillance
9.4 Obligation to Comply with Other Requirements
9.5 Liability
9.6 Recordkeeping
9.7 Annual Emissions Report
9.8 Requirements for Compliance Certification
9.9 Certification
9.10 Defense to Enforcement Actions
9.11 Permanent Shutdown
9.12 Reopening And Reissuing Permit For Cause
9.13 Severability Clause
9.14 Permit Expiration and Renewal

10.0 ATTACHMENTS

10.1	Attachment 1 -	State Construction and Operating Permits	1-1
10.2	Attachment 2 -	Emissions of Particulate Matter from New Process Emission Units	2-1
10.3	Attachment 3 -	Emissions of Particulate Matter from Existing Process Emission Units	3-1
10.4	Attachment 4 -	Example Certification by a Responsible Official	4-1
10.5	Attachment 5 -	Guidance on Revising This Permit	5-1
10.6	Attachment 6 -	Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only)	6-1
10.7	Attachment 7 -	Guidance on Renewing This Permit	7-1
10.8	Attachment 8 -	Control Technology Plan for Decatur	8-1
10.9	Attachment 9 -	Applicable National Emission Standards for Hazardous Air Pollutants (NESHAP)	9-1
10.10	Attachment 10 -	Applicable New Source Performance Standards (NSPS)	10-1
10.11	Attachment 11 -	Applicable State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle B: Air Pollution, Chapter I: Pollution Control Board, Subchapter C: Emission Standards and Limitations for Stationary Sources	11-1

1.0 SOURCE IDENTIFICATION

1.1 Source

Archer Daniels Midland Company - Decatur Complex
4666 Faries Parkway
Decatur, Illinois 62525
214/424-5885

I.D. No.: 115015AAE
Standard Industrial Classification: 2046, Wet Corn Milling
2075, Soybean Oil Mills
2076, Vegetable Oil Mills
2869, Industrial Organic Chemicals, Ethanol

1.2 Owner/Parent Company

Archer Daniels Midland Company
4666 Faries Parkway
Decatur, Illinois 62525

1.3 Operator

Archer Daniels Midland Company
4666 Faries Parkway
Decatur, Illinois 62525

Pat Dennis
217/424-5885

1.4 General Source Description

The Archer Daniels Midland Company - Decatur Complex is located at 4666 Faries Parkway in Decatur. The source operates a variety of grain processing activities including, milling, oil refining, alcohol and ethanol production and Bioproducts production.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CO	Carbon Monoxide
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
Ft^3	Cubic Feet
Gal	Gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
°K	Degrees Kelvin
kPa	Kilopascals
kg	Kilograms
kW	Kilowatts
l	liters
lb	Pound
ILCS	Illinois Compiled Statutes
MBtu	Million British thermal units
Mg	Megagrams
MW	Megawatts
mmHg	Millimeters of Mercury
mmscf	Million standard cubic feet
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
psia	pounds per square inch absolute
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan

SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T1	Title I – identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	Year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Corn Plant:

14 MR Evaporators

East Plant:

Isolate II Pack Tanks 18 to 21
Isolate III Pack Tanks 22 to 25
Raw Flake Conveying

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Corn Plant:

Sterile Tank
Blend Tank
Dextrose Tank
MR Feed Tank
MR Product Storage
MR Condensate Tank
Virgin Carbon Tank

BioProducts:

Packaging Riboflavin Vacuum System
Crystalline Sorbitol Vacuum System
Xanthan Gum Vacuum System
Lysine Vacuum System
Threonine Vacuum Systems
Vitamin C Vacuum System
Columns #2, 9 and 12
29 Bio I Propagators
43 Bio I Seed Fermenters
7 Bio II Propagators
14 Bio II Seed Fermenters
Lysine Loadout Bin Vents
12 Bio II Media Storage Bins

2 Sulfuric Acid Tanks

West Plant:

Two Bean Storage Tanks
Diatomaceous Earth Silo
Bleaching Clay Silo
Diatomaceous Earth Receiver
Four Diatomaceous Earth Day Bins

East Plant:

4 Functional Concrete Tanks
SPC Tanks 11, 12 and 13
Isolates I Pack Tank 1, 2, 3 and 4
Bulk Loadout Tank 1 and 5
Functional Concrete Blender
Hexane Split Box
Lift Station
Solvent Side Condensate Tank
12 Mobile Welding Units
Dewaxing Vessel
Flour Mill C Dump Station

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 MBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 MBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Equipment used for filling drums, pails, or other packaging containers, excluding aerosol cans, with soaps, detergents, surfactants, lubricating oils, waxes, vegetable oils, greases, animal fats, glycerin, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(8)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a)and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
ADM Decatur Corn Processing			
Mill			
Corn Storage and Transfer	White Corn Tank and Associated Transfer Equipment		Baghouse
Mill Process Tanks	Corn Milling Process Tanks		Mill House and South Germ Scrubbers
Gluten Filter Vacuum Pumps	Gluten Filter Vacuum Pumps		None
Gluten Recycle Conveying	Conveying	1993	Baghouse
Mill Sulfur Burners 1 & 2	Mill Process Water	May 1985	None
Fluid Bed Germ Dryer 1	Drying Germ	1976	Scrubber
Fluid Bed Germ Dryer 2	Drying Germ	1976	Scrubber
Rotary Steam Tube Dryer 1A, 1B and 1C	Drying Germ	1976	North and South Germ Scrubbers
Rotary Steam Tube Dryer 2	Drying Germ	1976	North Germ Scrubber
East, Middle and West Germ Coolers	Germ Cooling		North Germ Scrubber
Gluten Meal Dryer 1 & 2	Gluten Meal Drying	1976	Ducon Scrubbers 1 & 2
Gluten Hammermill 1 and 2	Gluten Meal Hammermilling	1977	Baghouse
North and South Feed House			
Fiber Dryer 1	Feed Drying	January 1978	Ducon 1, West Packed Tower and West Entoleter Scrubbers
Fiber Dryer 2	Feed Drying	January 1978	Ducon 2, East Packed Tower and East Entoleter Scrubbers
Fiber Dryer 3	Feed Drying	January 1978	Ducon 3, West Packed Tower and West Entoleter Scrubbers

Emission Unit	Description	Date Constructed	Emission Control Equipment
Fiber Dryer 4	Feed Drying	January 1978	Ducon 4, East Packed Tower and East Entoleter Scrubbers
Fiber Dryer 5	Feed Drying	January 1978	Ducon 5, Venturi 5 Scrubbers and Dryer RTO 5
Fiber Dryer 6	Feed Drying	June 1992	Ducon 6, Venturi 6 Scrubbers and Dryer RTO 6
Fiber Dryer 7	Feed Drying	December 2002	SO_2 Scrubber 7, Wet Electrostatic Precipitator and Dryer RTO 7
Fiber Cooler 1, 2, 3 and 4	Feed Pellet Cooling	January 1977	North MAC Baghouse
Feed Grinding	Feed Grinding	January 1977	South MAC Baghouse
Pellet Mill/ Cooler 1	Feed Pelletizing	January 1995	Pellet Cooler 1 South and North Cyclones
Pellet Mill/ Cooler 2	Feed Pelletizing	January 1995	Pellet Cooler 2 South and North Cyclones
Pellet Mill/ Cooler 3	Feed Pelletizing	January 1996	Pellet Cooler 3 South and North Cyclones
Pellet Mill/ Cooler 4	Feed Pelletizing	January 1996	Pellet Cooler 4 South and North Cyclones
Pellet Mill/ Cooler 5	Feed Pelletizing		Pellet Cooler 5 South and North Cyclones
Pellet Storage and Loadout	Pellet Storage and Loadout	January 1995	Baghouse
60% Gluten Meal Storage and Loadout	Meal Storage and Loadout	January 1985	Baghouse
Corn Fines Tank	Corn Fines Storage		Dust Collector
Germ Loadout	Germ Loadout		Dust Collector
Germ Meal Receiving	Germ Meal Receiving	January 1994	Dust Collector
Boiler 4	Natural Gas-Fired Boiler Rated at 180 MBtu/Hr	January 1977	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Boiler 5	Natural Gas-Fired Boiler Rated at 120 MBtu/Hr	January 1975	None
Boiler 6	Natural Gas-Fired Boiler Rated at 120 MBtu/Hr	January 1978	None
Boiler 9	Natural Gas-Fired Boiler Rated at 100 MBtu/Hr	January 1980	None
Boiler 10	Natural Gas-Fired Boiler Rated at 100 MBtu/Hr	January 1980	None
Fiber Drying	Drying Fiber		Baghouses, Cyclones and Scrubbers
Grinding and Pelletizing	Grinding and Palletizing of Fiber		Baghouses, Cyclones and Scrubbers
Alcohol			
Propagators 4 through 10	Yeast Propagation	1976	CO_2 Scrubber
Propagators 11 and 12	Yeast Propagation	1991	CO_2 Scrubber
Fermentators X-1 to X-14	Fermentation	1986	CO_2 Scrubber
Fermentators 1-A to 5-A, 1-B to 6-B, 2-C to 6-C and 1-D and 6-D	Fermentation	1986	CO_2 Scrubber
Fermenter 15 through 20 (A-Train)	Fermentation to Produce Ethanol	1976	None
Fermenter 21 through 26 (B-Train)	Fermentation to Produce Ethanol	1976	None
Fermenter 27 through 32 (C-Train)	Fermentation to Produce Ethanol	1976	None
Fermenter 33 through 39 (D-Train)	Fermentation to Produce Ethanol	1976	None
Fermenter 40 through 49 Refinery (E-Train)	Fermentation to Produce Ethanol	1981/1982	None
Alcohol MR Evaporators 1 to 6	Six Evaporators of Stillage	1980	Scrubber
Distillation	Distillation of Ethanol	1976	Scrubbers and Condensers

Emission Unit	Description	Date Constructed	Emission Control Equipment
Reflux Stripper	Removal of Ethanol from Vapors	1982	Vent Scrubber
Caustic Stripper	Removal of Caustic		
CO_2 Stripper Column	Removal of Ethanol from CO_2	1975	
Nitrogen Stripper			Scrubber
CO_2 Liquefaction	Liquefaction of CO_2 Produced from Fermentation	1980	None
Beer Well 1 and 2	Beer Storage	1975 and 1980	CO_2 Scrubber
Beer Still/ Rectifier 1, 2, 3 and 4	Distillation	1976	Vent Scrubber
Beer Still/ Rectifier 5	Distillation	1976	Vent Scrubber
Beer Still/ Rectifier 6	Distillation		Vent Scrubber
Alcohol Storage Tanks 1, 2, 3 and 4	Storage of Alcohol		None
Fusel Oil Storage Tank	Fusel oil Storage		None
MST Storage Tanks 5, 6 & 7			None
D-5, D-6 Gasoline Tanks			None
Alcohol Storage and Loadout	Loadout of Ethanol	1976	Flare
Refinery			
Carbon Furnace 1	Regeneration of Carbon	August 1976	Scrubber and RTO
Carbon Furnace 2	Regeneration of Carbon	March 1981	Scrubber and RTO
Carbon Furnace 3	Regeneration of Carbon	January 1990	Scrubber and RTO
Dextrose MR Evaporator 1	Removal of Water from Dextrose	September 1980	None
Dextrose MR Evaporator 2	Removal of Water from Dextrose	September 1980	None
Dextrose MR Evaporator 3	Removal of Water from Dextrose	September 1980	None
Dextrose MR Evaporator 4	Removal of Water from Dextrose	April 1994	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Dextrose MR Evaporator 6	Removal of Water from Dextrose	January 1996	None
No. 1 42 MR Evaporator	Removal of Water from Fructose	December 1983	None
F3 MR Evaporator	Removal of Water from Fructose	February 1990	None
Split MR Evaporator	Removal of Water from Dextrose and Fructose	March 1984	None
90 MR Evaporator	Removal of Water from Fructose	May 1980	None
99 MR Evaporator	Removal of Water from Fructose	December 1989	None
D5 MR Evaporator	Removal of Water from Dextrose	July 1994	None
7% HCL Tanks 1, 2 & 3 (Inside)	HCL Storage Tanks	January 1991	Acid Scrubber
35% HCL Tanks 1 through 8 (Outside)	HCL Storage Tanks	January 1991	Acid Scrubber
Filter Aid Storage Silo	Storage Silo	January 1976	Baghouse
Cogeneration			
Cogen Boilers 1 through 5	Coal-Fired Boilers Rated at 492 MBtu/Hr	1987	Baghouses
Cogen Boiler 6	Coal-Fired Boiler Rated at 700 MBtu/Hr	1991	Baghouse
Cogen Boiler 7	Coal-Fired Boiler Rated at 750 MBtu/Hr	1995	Baghouse
Cogen Boiler 8	Coal-Fired Boiler Rated at 1500 MBtu/Hr	1995	Baghouse
Boiler 9			
Package Boiler 1 & 2	Natural Gas-Fired Boilers Rated at 350 MBtu/Hr	1995	None
Coal Unloading	Unloading of Coal	1987	Dust Collector
Limestone Unloading	Unloading of Limestone	1986	Dust Collector
Coal Crusher 1	Coal Crusher	1994	Dust Collector
Fly Ash Silo	Storage Silo	1994	Baghouse
Bed Ash Silo	Storage Silo	1994	Baghouse
HCL Storage Tank 1, 2 & 3	Storage Tanks	1986/1986/ 1990	Scrubber

Emission Unit	Description	Date Constructed	Emission Control Equipment
Wastewater Treatment			
Anaerobic Wastewater Treatment System	Wastewater Treatment		Scrubber Systems 1 and 2 and Flare
Equalization Tanks	Treatment of Wastewater		
Aeration Tanks	Treatment of Wastewater		
ADM Decatur Bioproducts			
Lactic Acid			
Esterification Columns 3, 7 and 10	Esterification	March 1990/ December 1995/ May 1997	Wet Scrubber
Rehydration Columns 8 & 11	Rehydration	March 1990/ December 1995	
Columns 9 & 12	Lactic Acid Concentration	December 1995 May 1997	
Tanks 25 & 26 (Ester)	Ester Storage Tanks	1996	
Tanks 27 & 28 (Ethanol)	Ethanol Storage Tanks	1996	
Ethyl Lactate Refining Columns 1 & 5	Ethyl Lactate Refining	March 1990/ December 1995	
Tanks 17 & 18	Final Product Storage	March 1990	None
HCl Tank	Storage Tank	November 1991	None
Crystalline Sorbitol			
Mill, Sifter, Packaging	Packaging of Crystalline Sorbitol	1995	Baghouse
Packaging Vacuum System	Packaging of Crystalline Sorbitol	1996	Baghouse
Astaxanthin			
Drying, Cooling and Packaging	Astaxanthin Production	1994	Baghouse
Product Tank with Blender	Astaxanthin Production	2003	Baghouse
Packaging	Astaxanthin Packaging-B81 Warehouse	1999	Baghouse
Lysine/Ammonium Sulfate			
Spray Dryer 1, 2 and 3	Drying of Lysine	1990	Baghouses
Spray Dryer 5 and 6	Dryihng of Lysine	1994	Baghouses

Emission Unit	Description	Date Constructed	Emission Control Equipment
Spray Dryer 4, 7, 8 and 9	Drying of Lysine	1992	Baghouses
Spray Dryer 10	Drying of Lysine	1994	Baghouse
Spray Dryer 11, 12, 13 and 14	Drying of Lysine	1995	Baghouse
Cooling, Grinding/ Sifting and Packaging	Lysine Production	1992	Baghouse
Spray Dryers 15 and 16	Drying of Lysine	1996	Baghouse
Amino Acid Packaging Tower	Lysine Packaging	1998	Baghouse
Bulk Loadout	Lysine	1998	Baghouse
Threonine			
Dryer 1 and 2	Drying of Threonine	2002	Baghouse
Transfer System	Threonine Production	2002	Baghouse
Compaction/ Grinding, Sifting and Packaging	Threonine Production	2002	Baghouse
Re-Work System	Threonine Production	2002	Baghouse
Two Threonine Dryers	Drying of Threonine	1999	Baghouse
North Transfer Line	Transfer of Threonine	1999	Baghouse
Transfer Line	Transfer of Threonine	2000	Baghouse
Transfer Line II	Transfer of Threonine	2006	Baghouse
Sifting/ Grinding, Storage and Packaging	Threonine Production	1990	Baghouse
Spray Dryer A, B and C	Drying of Threonine	1992	Baghouses
Packaging, Sifting and Grinding	Threonine Production	1994	Baghouse
Xanthan Gum			
Distillation Column I and II	IPA Distillation	1994	Packed Tower Scrubber
Distillation Column III	IPA Distillation	2000	Wet Scrubber

Emission Unit	Description	Date Constructed	Emission Control Equipment
Screw Process Food & Industrial	IPA Distillation, Precipitation and Xanthan Gum Drying	1994	Wet Scrubber
DSM Screens Food & Industrial	IPA Distillation, Precipitation and Xanthan Gum Drying	1994	Wet Scrubber
4 Drop Tanks	Xanthan Gum Process Tanks	1994	Tank Vent Condensor-Wet Scrubber
North & South Precipitation Tanks	Xanthan Gum Process Tanks	1994	Tank Vent Condensor-Wet Scrubber
Still Feed Tank I and II	Process Tanks	1994	Wet Scrubber
Still Feed Tank III	Process Tank	1999	Packed Tower Scrubber
Fresh/Make-Up IPA Tank	Storage Tank	1994	Wet Scrubber
Distilled IPA Tank	Process Tank	1994	Wet Scrubber
Xanthan Gum Turbo Dryer	Drying of Xanthan Gum	1994	Wet Scrubber
Agglomerate Dryers I, II and III	Agglomeration of Food/Industrial-Grade Xanthan Gum	1994	Baghouses
Screen and Packaging I and II	Screening and Packaging of Food/Industrial Xanthan Gum	1994	Baghouses
Blending, Sifting/ Grinding and Storage Gum Transfer I & II	Processing, Storage & Transfer of Food/Industrial Xanthan Gum	2001	Baghouse
Blending & Packaging Line	Blending & Packaging of Food Grade Xanthan Gum	2006	Baghouse
BioProducts Miscellaneous			
Process Tanks Vent Odor Scrubber	Miscellaneous Process Tank Vents	2000	Wet Scrubber
Bio II Pilot Fermentation System	Pilot Fermentation System	2003	Wet Scrubber
BIO I Pilot Fermentation System	Pilot Fermentation System	2006	Wet Seed Scrubber & Wet Main Scrubber

Emission Unit	Description	Date Constructed	Emission Control Equipment
Calcium Carbonate Slurry Tank	Calcium Carbonate Slurry Tank	2001	Baghouse
Calcium Carbonate Storage	Calcium Carbonate Storage	2001	Bin Vent
Calcium Carbonate Storage	Calcium Carbonate/ Hydroxide Storage	1998	Bin Vent
Bio I Fermenters	Bio I Fermentation	1989	Entrainment Separators
Bio II Fermenters	Bio II Fermentation	1991	Wet Scrubber
Storage Tanks			
Hydrochloric Acid Storage Tanks	Four Storage Tanks	2003	Wet Scrubber
ADM Decatur East			
Receiving/Conveying			
Truck Dump Stations	Five Grain Truck Dump Stations		3 Baghouses
Belt Conveyor Legs	Three Grain Conveyors		Baghouse
Rail Car Dump	Rail Car Dump		Baghouse
Dryers	Two Grain Dryers		Cyclone
Screw Conveyor	Grain Conveying		Baghouse
Drag Conveyor	Grain Conveying		Baghouse
Corn and Bean Legs	Grain Conveying		Baghouse
Grain Preparation			
Grain Preparation Equipment	Grain Preparation	1960	Baghouse
Hot Bean Aspiration	Cracked Soybeans are Aspirated	1960	Cyclone
Secondary De-Hulling	Collection Device for Hull Rotexes, Aspirators and Grinders	October 1977	Baghouse
Dryer/ Conditioner and Aspirators	Fluidized Bed Soybean Dryer	September 1985	Cyclone
Flaking Rolls	Cracked Soybeans are Processed into Flakes	July 1968	Cyclone
Pellet Cooler	Hulls are Cooled and Collected	1994	Cyclone

Emission Unit	Description	Date Constructed	Emission Control Equipment
Soybean Extraction and Oil Refining			
New DTDC	Soy Flakes are Dried	1996	2 Cyclones
East, Center and West Coolers	Soy Flakes are Cooled	1960/1960/ 1989	3 Baghouses
Toaster Cooler	Soy Flakes are Toasted	1960	Cyclone
Meal Sifters and Grinders	Soy Flake Sifting and Grinding	1960	Baghouse
Textured Vegetable Protein			
Receiving Tanks	Receiver Tanks		3 Baghouses
Bucket Elevator	Elevator		Baghouse
Extruders	Extrudes Soybean Material	1960	Cyclones
Blenders/ Surge Bins	Grinds Soybean Material		2 Baghouses
Dryers	Steam Drying of Soybean Material	1960	4 Baghouses
Flour Mill A			
Old Flour Mill System	Grinding/Receiving		Baghouse
Annex III Flour Grinding	Grinding		Baghouse
Annex IV Flake Receiving	Receiving		Baghouse
Annex IV Flour Grinding	Grinding		Baghouse
Arsoy Pelletizing System	Receiver/Pelletizing		Cyclone
Annex II Flake Filter, East Grinder, West Grinder	Soy Flakes Ground into Soy Fiber	November 1990	3 Baghouses
Annex III Flake Filter	Soy Flakes Ground into Soy Fiber	November 1990	Baghouse and Cyclone
Annex Flour Flake	Defatted Soy Flakes Product Receiver	1960	Baghouse
Annex Flour System	Flour Grinding and Conveying Processes	1960	Baghouse
Annex Grit Flake Receiver	Defatted Soy Flakes Product Receiver	1960	Baghouse
Bulk Loadout #3, #5 and #6 Tank Receivers	Bulk Loadout of Soy Flour	1960	2 Baghouses 1 Bin Vent

Emission Unit	Description	Date Constructed	Emission Control Equipment
Fast Freddy Separator	Separator for Soy Flour	1990	Baghouse
Old Grit System Receiver	Receiver for Defatted Soy Flakes	1989	Baghouse
3rd Floor Grit Pneumafil	Isolated Soy Flakes Transfer Equipment	1987	Baghouse
Flour Mill C			
Annex II Pack Tank Receiver	Packaging of Soy Flour	1960	4 Bin Vents
Annex III Finished Product Receiver	Packaging of Soy Flour	1960	Baghouse
SPC Dual Spout Bagger	Packaging of Soy Flour	1960	Baghouse
East Receiver	Transfer of Soy Protein	1990	Baghouse
Flour Packer	Packaging of Soy Flour	1960	Baghouse
West Receiver	Transfer of Soy Protein	1990	Baghouse
Hoffman Central Vacuum System	Central Vacuum System	1992	Baghouse
Dual Spout Bagger	Packaging of Isolated Soy Flour	1989	Baghouse
Oil Blend Flour Receiver	Receiver for Defatted Soy Flakes Flour	1975	Baghouse
Oil Blend System Grinder	Oil Blend System	1975	Baghouse
Soybean Meal Loadout	Meal and Hulls Loadout	1978	Baghouse
East Isolate Packer Receiver	Packaging Control System	1987	Baghouse
Industrial Isolate			
Defatted White Flakes Tanks	Receiver of White Flakes	1989	Baghouse
Rotary Dryers	Rotary Fiber Drying of Defatted Soy Flakes	1989	Cyclone and Baghouse
Lime Tank	Lime Receiving	1989	Baghouse
Isolate I			
Defatted White Flakes Tank	Receiver of Defatted White Flakes	1987	Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Defatted White Flakes	1987	Baghouse
Spray Dryer West	Spray Dryer for Defatted White Flakes	1987	Cyclones and 2 Baghouses

Emission Unit	Description	Date Constructed	Emission Control Equipment
Spray Dryer Center	Spray Dryer for Defatted White Flakes	1988	Cyclones and 2 Baghouses
Spray Dryer East	Spray Dryer for Defatted White Flakes	1987	Cyclones and 2 Baghouses
Isolate II			
Defatted White Flakes Tank	Receiver of Defatted Soy Flakes	1989	Cyclone and Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Defatted Soy Flakes	1989	Baghouse
Spray Dryer	Spray Fiber Dryer for Defatted Soy Flakes	1989	Baghouses
Isolate III			
Defatted Flake Tank	Receiver of Isolate Soy Flakes	1995	Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Isolate Soy Flakes	1995	Baghouse
Grinding	Grinding Process		Baghouse
Spray Dryer	Spray Dryer for Defatted Soy Flakes	1995	4 Baghouses
Soy Protein Concentrate			
D.T. #1 Dryer 1	Soy Protein Concentrate Dryer	1988	Cyclone
D.T. #1 Dryer 2	Soy Protein Concentrate Dryer	1990	Cyclone
D.T. #1 Cooler	Soy Protein Concentrate Cooler	1988	Cyclone
D.T. #2 Dryer 2	Soy Protein Concentrate Dryer	1990	Cyclone
D.T. #2 Dryer 1	Soy Protein Concentrate Dryer	1990	Cyclone
D.T. #2 Cooler	Soy Protein Concentrate Cooler	1990	Cyclone
ADM Decatur West			
Receiving/Conveying			
West Soybean Receiving	Grain Dump Pit		Dust Collector
East Soybean Receiving	Grain Dump Pit		Dust Collector
Rail/Truck Dump Pit	Rail/Truck Dump Pit (Soybeans)	1990	Dust Collector
Truck and Rail Receiving	Corn Germ Receiving Pit		Baghouse
Elevator A	Elevator		Dust Collector
Elevator B	Elevator		Dust Collector
Elevator C	Elevator		3 Baghouses

Emission Unit	Description	Date Constructed	Emission Control Equipment
East and West Aeroglide Dryers	Grain Dryers		Cyclones
Conveying to Processing (Soybeans)	Conveying into the soybean plant		Baghouse
Conveying to Processing (Corn Germ)	Conveying into the corn germ plant		Baghouse
Soybean Processing			
Hull Grinding	Hull Grinding	1988	5th Floor Dust Collector
Dehulling	Primary and Secondary Dehulling Operations	April 1995	Baghouse
Soybean Preheater	Preheating are Prepared for Oil Extraction Process	March 2004	Cyclone
Fluid Bed Dryer	Soybean Conditioning	June 1985	Baghouse
Flaking	Soybean Flaking	1980	South Dust Collector
Soy Expander Cooler	Soybean Flake Expander and Cooler System	1991	Cyclones 1 & 2
Soy and Corn Meal Preparation and Loadout			
Meal Transfer and Storage	Meal Transfer and Storage	October 1972	Baghouse
Soybean Meal Screening and Grinding	Meal Screening and Grinding	October 1972	
Meal Loadout	Meal Loadout	October 1974 Modified in 2000	Baghouse
Corn Meal Truck Loadout	Corn Meal Loadout	2000	Baghouse
Hull Pelleting			
Pelletizers/ Coolers	Hull Pelletizing and Cooling Operations	July 1975	Cyclones 1a through 1l
Soybean Extraction			
Conveying to Extractor	Conveying of Flakes to Extractor		None
Soybean Extractor	Soybean Flakes are Desolventized		Mineral Oil Scrubber
Soybean DTDC	Desolventizing Soybean Flakes	January 1984	Cyclones A, B, C and D
Package Boiler	Production of Steam for use in process		None
Hexane Tanks			
Corn Germ Processing			

Emission Unit	Description	Date Constructed	Emission Control Equipment
Corn Germ Conditioning	Corn Germ Conditioning		Cyclone
Corn Germ Expellers	Corn Germ Expelling	1976	Rotoclone
Expeller Discharge Conveyer	Corn Germ Conveying		Cyclone
Corn Germ Flaking	Corn Germ Flaking	1980	Cyclone
Corn Germ Expanders	Corn Germ Expanding	1980	Cyclone
Corn Germ Extraction			
Corn Germ Extractor	Corn Germ Flakes are Desolventized		Mineral Oil Scrubber
South DTDC	Corn Germ Flakes are Desolventized after Passing through the Desolventizer-toaster	1988	Cyclone and Baghouse
West DTDC	Corn Germ Flakes are Desolventized after Passing through the Desolventizer-toaster		2 Baghouses
Hexane Tank			
SSL Facility			
Lactylate Reactor	Reactor	September 1988	None
Lactylate Flaking	Lactylate Flaking	December 1962	Scrubber
Condensate Tank	Condensate Tank	September 1988	None
Flake Storage	Flake Storage	September 1988	Bin Vent Filter
Classifier	Classifier and Packaging Machine	December 1988	Baghouse
Harvest Burger/Veggie Dry Mix	Production of Harvest Burgers and Veggie Dry Mix	November 1993	Baghouse
Hot Oil Heater	10 MBtu/Hr Hot Oil Heater	October 1988	None
Vegetable Oil Refining			
Hydrogen Plant Reformers B, A and C	Two Natural Gas-Fired Burners Rated at 21.0 MBtu/Hr and one at 33.0 MBtu/Hr	1979/1993/ 2004	None
High Pressure Steam Boiler	Natural Gas-Fired Boiler Rated at 13.5 MBtu/Hr	1991	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Boilers B, C and D	Three Natural Gas-Fired Boilers Rated at 11.2, 11.2 and 8.57 MBtu/Hr	1962/1971/ 1974	None
Nebraska Boiler	Natural Gas-Fired Boiler Rated at 15.0 MBtu/Hr	1995	None
Package Boiler	Natural Gas-Fired Boiler Rated at 175 MBtu/Hr		None
Deoiled Lecithin			
Lecithin Deoiling/ Desolventizing	Use of Solvent to Remove Oil and then Desolventizing of Deoiled Leithin	1995	Mineral Oil Scrubber
Solvent Side Fluid Bed Dryer	Dries Cooled Leithin	1995	Baghouse
Grinding/ Screening	Grind and Screen Deoiled Leithin	1995	Baghouse
Granulation Fluid Bed Dryer	Dries Granulized Deoiled Leithin	1995	
Deoiled Leithin Packaging	Packaging of Deoiled Leithin	1995	Baghouse
Dairy Feed			
Dairy Feed Fluid Bed Dryers	Corn meal, Soap Stock, Millfeed, Bentonite Clay and Soybean Dust are Pelletized	1997	Cyclones 01a, 01b, 01c and 01d
Packaged Oils Plant			
Raw Material (Salt) Receiving	Salt is Unloaded into a Storage Tank	1995	Receiving Fabric Filter
Vitamin E			
Methanol Storage Tanks 1 through 4	Methanol Storage Tanks	1995	Mineral Oil and Water Scrubbers
Methyl Formcel Storage Tank	Methyl Formcel Storage Tank	1995	
Heptane Storage Tanks 1 through 6	Heptane Storage Tanks	1995	
Stripping and Distillation	Stripping and Distillation	1995	
Purification and Solvent Recovery	Purification and Solvent Recovery	1995	

Emission Unit	Description	Date Constructed	Emission Control Equipment
Grinding and Packaging	Grinding and Packaging	1995	
Prilling and Packaging	Prilling and Packaging	1995	
Agglomerate Dryer	Dryer	1995	

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM, PM, CO, HAPs, NO_x and SO_2 emissions.

5.1.2 This permit is issued based on the source requiring a CAAPP permit because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, or because the source is in a source category designated by the USEPA, pursuant to 40 CFR 70.3(a)(2), (3), and (5) (40 CFR 70.3 Applicability) [Section 39.5(2)(a)(ii) and (iv) of the Act].

5.1.3 For purposes of the CAAPP, Archer Daniels Midland Company, I.D. No 115015AAE is considered a single source with Archer Daniels Midland Company, I.D. No 115015AAD, Archer Daniels Midland Company I.D. No 115015ACJ, Archer Daniels Midland Company I.D. No 115015AJY, Archer Daniels Midland Company I.D. No 115015AKG, Archer Daniels Midland Company I.D. No 115015AKR, ADM North Water Plant I.D. No 115015AOU and Archer Daniels Midland Company I.D. No 115015APL. The emissions sources for these I.D. numbers have been incorporated into this CAAPP permit.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject

to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

c. The source's emission units that were constructed or modified prior to April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

d. The source's emission units constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

5.2.3 Fugitive Particulate Matter Operating Program

a. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

c. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

5.2.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.5 Risk Management Plan

a. This stationary source, as defined in 40 CFR Section 68.3, is subject to 40 CFR Part 68, the Accidental Release Prevention regulations [40 CFR 68.215(a)(1)].

b. The owner or operator of a stationary source shall revise and update the RMP submitted, as specified in 40 CFR 68.190.

5.2.6 Future Applicable Regulations

a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable

requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.7 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section; and

ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or

iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.8 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

a. Pursuant to 40 CFR 72.6(b)(4)(i), cogeneration plants that will not be selling one third, or more, of its potential electrical output or more than 219,000 MWe-hours actual electric output on an annual basis is not subject to the requirements of the Acid Rain Program.

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

Emission limitations are not set for this source for the purpose of permit fees. The Permittee shall be required to pay the maximum fee of $250,000.00 per year, pursuant to Section 39.5(18)(a)(ii)(A) of the Act.

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Records for Operating Scenarios

N/A

5.6.3 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

None

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

5.10 Consent Decree

a. The Permittee shall comply with applicable requirements of the Consent Decree, United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 for the affected facility, including provisions in the Control Technology Plan for Decatur prepared and maintained pursuant to the Consent Decree (See Attachment 10.8 for a copy of the Control Technology Plan effective when this permit was issued).

b. i. The Permittee shall carry out the Emission Reduction Projects for this source required by the Consent Decree as follows, (Consent Decree, Paragraphs 17 and 20)

A. The Permittee shall meet the unit emission limits or percentage reductions (collectively referred to herein as "emission reduction

projects") set forth below in accordance with the attached CTPs. Where the Consent Decree requires "percent reductions," these reductions shall be demonstrated by calculating the difference between the mass of pollutants measured at the control device inlet and outlet unless otherwise specified in a CTP or Attachment 12. Where part per million ("ppm") limits are referenced in this Consent Decree or the CTPs, compliance will be determined using ppm by volume on a dry basis. Where optimization of existing equipment is required under this Consent Decree, initial startup will be defined as completion of the optimization study, for purposes of Paragraph 34 and the applicable CTP.

B. VOC/CO/PM Emission Reduction Projects

Gluten Feed/Fiber Dryers 1-7:

VOC: 95% control or 10 ppm
CO: 90% control or 100 ppm
PM: Emission limits to be set as described in the CTP

Gluten Meal Dryers 1-2:

VOC: 95% control or 10 ppm
CO: 90% control or 100 ppm
PM: Emission limits to be set as described in the CTP

Carbon Furnaces 1-3:

VOC: 95% control or 10 ppm
CO: 90% control or 100 ppm
PM: Emission limits to be set as described in the CTP

C. VOC Emission Reduction Projects

Germ Dryers (Fluid Bed 1 & RST 1B; FB2 and RST 1A, 1C and 2) and Millhouse Vent: 95% control or 20 ppm

Yeast Propagators: 95% control or 20 ppm

Ethanol Fermenters: 95% control or 20 ppm

Non-dedicated Ethanol Loadout: 95% control

Stillage MR vents: Installation of control equipment designed to achieve 95% control, with emission limits to be set as described in the CTP

D. SO_2 Emission Reduction Projects

Gluten Feed/Fiber Dryers 1-7: 90% control or 20 ppm

Gluten Meal Dryers 1-2: 90% control or 20 ppm

Germ Dryers (Fluid Bed 1 & RST 1B; FB2 and RST 1A, 1C and 2) and Millhouse Vent: 90% control or 20 ppm

Carbon Furnaces 1-3: 90% control or 20 ppm

E. NO_x Emission Reduction Projects

Cogen Boilers 1-6: Installation of SNCR and establishment of emission limits

Cogen Boiler 9: Optimization of SNCR and establishment of emission limit, as specified in Illinois Permit #97050097

Feedhouse Boilers 5, 6, 9 and 10: Permanent shutdown

ii. Reduction in VOC Emissions shall be accomplished in accordance with Paragraph 28 of the Consent Decree, with all VOC emission reductions achieved by December 31, 2012.

iii. The Permittee shall seek to obtain all required permits for emission reduction projects, in accordance with Paragraphs 37, 38 and 39(a) of the Consent Decree.

iv. Upon completion of each emission reduction project at this source, the Permittee shall demonstrate compliance with the applicable emissions limits and/or destruction efficiency requirement through source testing, continuous or emission or parametric monitoring, recordkeeping and reporting, as appropriate, as set forth in Paragraph 31 through 34

of the Consent Decree and the associated Control Technology Plan for Decatur.

v. The Permittee shall conduct monitoring, recordkeeping and reporting for the emission units at this source in accordance with Paragraphs 43 through 46 of the Consent Decree, including:

A. Ongoing operational monitoring.

B. Submittal of Semiannual Reports.

C. Appropriate retention of Records.

c. As provided by Paragraph 39(b) of the Consent Decree, for emission units not required to implement emission reduction projects under this Consent Decree, the Permittee has until February 21, 2005 to apply for a permit or permit amendment imposing or modifying VOC and CO limits for units at this source. The Permittee's failure to submit full and complete applications for these permits or permit amendments by this day may subject it to additional civil penalties and injunctive relief requirements. The Permittee shall submit a list of emission units for which applications for permits or permit amendments were filed in its January 30, 2005 semiannual report. This provision shall not extend any deadlines for submission of CAAPP permit applications.

d. The Permittee shall carry out provisions of the Consent Decree to resolve applicability of federal New Source Performance Standards (NSPS) to emission units at the source, as set forth in Paragraphs 40, 41 and 42 of the Consent Decree.

e. For the purpose of this permit the terms VOC and VOM are synonymous.

6.0 EMISSIONS CONTROL PROGRAMS

6.1 NO_x Trading Program

6.1.1 Description of NO_x Trading Program

The NO_x Trading Program is a regional "cap and trade" market system for large sources of NO_x emissions in the eastern United States, including Illinois. It is designed to reduce and maintain NO_x emissions from the emission units covered by the program within a budget to help contribute to attainment and maintenance of the ozone ambient air quality standard in the multi-state region covered by the program, as required by Section 126 of the CAA. The NO_x Trading Program applies in addition to other applicable requirements for NO_x emissions and in no way relaxes these other requirements.

Emission units that are subject to the NO_x Trading Program are referred to as "budget units." Sources that have one or more budget unit subject to the NO_x Trading Program are referred to as budget sources.

The NO_x Trading Program controls NO_x emissions from budget units during a seasonal control period from May 1 through September 30 of each year, when weather conditions are conducive to formation of ozone in the ambient air. (In 2004, the first year that the NO_x Trading Program is in effect, the control period will be May 31 through September 30.) By November 30 of each year, the allowance transfer deadline, each budget source must hold "NO_x allowances" for the actual NO_x emissions of its budget units during the preceding control period. The USEPA will then retire NO_x allowances in the source's accounts in amounts equivalent to its seasonal emissions. If a source does not have sufficient allowances in its accounts, USEPA would subtract allowances from the source's future allocation for the next control period and impose other penalties as appropriate. Stringent monitoring procedures developed by USEPA apply to budget units to assure that actual emissions of NO_x emissions are accurately determined.

The number of NO_x allowances available for budget sources is set by the overall budget for NO_x emissions established by USEPA. This budget requires a substantial reduction in NO_x emissions from historical levels as necessary to meet air quality goals. In Illinois, separate rules have been established for the budget units that are electrical generating units (EGU) and for large units at

manufacturing plants and institutions (non EGU), like the boilers at this source. Under these rules, the allocation or share of the NO_x allowances for non-EGU is set in an amount established by rule [35 IAC Part 217, Appendix E]. New budget unit, for which limited operating data may be available, may obtain NOx allowances from the new source set-aside (NSSA), a portion of the overall budget reserved for new budget units.

In addition to directly receiving or purchasing NO_x allowances as described above, budget sources may transfer NO_x allowances from one of their units to another. They may also purchase allowances in the marketplace from other sources that are willing to sell some of the allowances that they have received. Each budget source must designate an account representative to handle all its allowance transactions. The USEPA, in a central national system, will maintain allowance accounts and record transfer of allowances among accounts.

The ability of sources to transfer allowances will serve to minimize the costs of reducing NO_x emissions from budget units to comply with the overall NO_x budget. In particular, the NO_x emissions of budget units that may be most economically controlled will be targeted by sources for further control of emissions. This will result in a surplus of NO_x allowances from those units that can be transferred to other units at which it is more difficult to control NO_x emissions. Experience with reduction of sulfur dioxide emissions under the federal Acid Rain program has shown that this type of trading program not only achieves regional emission reductions in a more cost-effective manner but also results in greater overall reductions than application of traditional emission standards to individual emission units.

The USEPA developed the plan for the NO_x Trading Program with assistance from affected states. Illinois' rules for the NO_x Trading Program are located at 35 IAC Part 217, Subpart U and W, for non-EGUs and EGUs, respectively. These rules have been approved by the USEPA. These rules provide for interstate trading, as mandated by Section 9.9 of the Act. Accordingly, these rules refer to and rely upon federal rules at 40 CFR Part 96, which have been developed by USEPA for certain aspects of the NO_x Trading Program, and which an individual state must follow to allow for interstate trading of allowances.

Note: This narrative description of the NO_x Trading Program is for informational purposes only and is not enforceable.

6.1.2 Applicability

a. The following emission units are budget units for purposes of Illinois' NO_x Trading Program. Accordingly, this source is a budget source and the Permittee is the owner or operator of a budget source and budget units. In this section of this permit, these emission units are addressed as budget units.

NEW UNITS

COAL-FIRED BOILER 7
COAL-FIRED BOILER 8
COAL-FIRED BOILER 9

EXISTING UNITS

DESIGNATION	UNIT DESCRIPTION
85060030081	COAL-FIRED BOILER 1
85060030081	COAL-FIRED BOILER 2
85060030081	COAL-FIRED BOILER 3
85060030082	COAL-FIRED BOILER 4
85060030082	COAL-FIRED BOILER 5
85060030082	COAL-FIRED BOILER 6
85060030083	GAS-FIRED BOILER 1
85060030083	GAS-FIRED BOILER 2

b. This Permit does not provide "low-emitter status" for the above emission units pursuant to 35 IAC 217.472.

6.1.3 General Provisions of the NO_x Trading Program

a. This source and the budget units at this source shall comply with all applicable requirements of Illinois' NO_x Trading Program, i.e., 35 IAC Part 217, Subpart U, and 40 CFR Part 96 (excluding 40 CFR 96.4(b) and 96.55(c), and excluding 40 CFR 96, Subparts C, E and I), pursuant to 35 IAC 217.456(a) and 217.456(f)(2).

b. Any provision of the NO_x Trading Program that applies to a budget source (including any provision applicable to the account representative of a budget source) shall also apply to the owner and operator of such budget sources and to the owner and operator of

each budget unit at the source, pursuant to 35 IAC 217.456(f)(3).

c. Any provision of the NO_x Trading Program that applies to a budget EGU (including any provision applicable to the account representative of a budget unit) shall also apply to the owner and operator of such budget unit. Except with regard to requirements applicable to budget units with a common stack under 40 CFR 96, Subpart H, the owner and operator and the account representative of one budget unit shall not be liable for any violation by any other budget unit of which they are not an owner or operator or the account representative, pursuant to 35 IAC 217.456(f)(4).

6.1.4 Requirements for NO_x Allowances

a. Beginning in 2004, by November 30 of each year, the allowance transfer deadline, the account representative of each budget unit at this source must hold allowances available for compliance deductions under 40 CFR 96.54 in the budget unit's compliance account or the source's overdraft account in an amount that shall not be less than the budget unit's total NO_x emissions for the preceding control period (rounded to the nearest whole ton), as determined in accordance with applicable monitoring requirements, plus any number of allowances necessary to account for actual utilization (e.g., for testing, start-up, malfunction, and shut down) under 40 CFR 96.42(e) for the control period, pursuant to 35 IAC 217.456(d)(1). For purposes of this requirement, an allowance may not be utilized for a control period in a year prior to the year for which the allowance is allocated, pursuant to 35 IAC 217.456(d)(4).

b. The account representative of a budget unit that has excess emissions in any control period, i.e., NO_x emissions in excess of the number of NO_x allowances held as provided above, shall surrender allowances as required for deduction under 40 CFR 96.54(d)(1), pursuant to 35 IAC 217.456(f)(5). In addition, the owner or operator of a budget unit that has excess emissions shall pay any fine, penalty, or assessment, or comply with any other remedy imposed under 40 CFR 96.54(d)(3) and the Act, pursuant to 35 IAC 217.456(f)(6). Each ton of NO_x emitted in excess of the number of NO_x allowances held as provided above for each budget unit for each control period shall

constitute a separate violation of 35 IAC Part 217 and the Act, pursuant to 35 IAC 217.456(d)(3).

c. An allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program is a limited authorization to emit one ton of NO_x in accordance with the NO_x Trading Program. As explained by 35 IAC 217.456(d)(5), no provisions of the NO_x Trading Program, the budget permit application, the budget permit, or a retired unit exemption under 40 CFR 96.5 and no provision of law shall be construed to limit the authority of the United States or the State of Illinois to terminate or limit this authorization. As further explained by 35 IAC 217.456(d)(6), an allowance allocated by the Illinois EPA or USEPA under the NO_x Trading Program does not constitute a property right. As provided by 35 IAC 217.456(d)(2), allowances shall be held in, deducted from, or transferred among allowances accounts in accordance with 35 IAC Part 217, Subpart U, and 40 CFR 96, Subparts F and G.

6.1.5 Monitoring Requirements for Budget Units

a. The Permittee shall comply with the monitoring requirements of 40 CFR Part 96, Subpart H, for the budget unit and the compliance of the budget unit with the emission limitation under Condition 6.1.4(a) shall be determined by the emission measurements recorded and reported in accordance with 40 CFR 96, Subpart H, pursuant to 35 IAC 217.456(c)(1) and (c)(2).

b. The account representative for the source and the budget unit at the source shall comply with those sections of the monitoring requirements of 40 CFR 96, Subpart H, applicable to an account representative, pursuant to 35 IAC 217.456(c)(1).

Note: Pursuant to 40 CFR 96.70(b), new budget units that commence operation before January 1, 2003 are to begin complying with applicable monitoring requirements of 40 CFR Part 96 at least one year in advance of the start of the first control period governed by the NO_x Trading Program.

Note: Pursuant to 40 CFR 96.70(b), existing budget units are to begin complying with applicable monitoring requirements of 40 CFR Part 96 at least one year in

advance of the start of the first control period governed by the NO_x Trading Program.

6.1.6 Recordkeeping Requirements for Budget Units

Unless otherwise provided below, the Permittee shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This 5-year period may be extended for cause at any time prior to the end of the 5 years, in writing by the Illinois EPA or the USEPA.

a. The account certificate of representation of the account representative for the source and each budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 40 CFR 96.13, as provided by 35 IAC 217.456(e)(1)(A). These certificates and documents must be retained on site at the source for at least 5-years after they are superseded because of the submission of a new account certificate of representation changing the account representative.

b. All emissions monitoring information, in accordance with 40 CFR 96, Subpart H, (provided that to the extent that 40 CFR 96, Subpart H, provides for a 3-year period for retaining records, the 3-year period shall apply), pursuant to 35 IAC 217.456(e)(1)(B).

c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_x Trading Program or documents necessary to demonstrate compliance with requirements of the NO_x Trading Program, pursuant to 35 IAC 217.456(e)(1)(C).

d. Copies of all documents used to complete a budget permit application and any other submission under the NO_x Trading Program, pursuant to 35 IAC 217.456(e)(1)(D).

6.1.7 Reporting Requirements for Budget Units

a. The account representative for this source and each budget unit at this source shall submit to the Illinois EPA and USEPA the reports and compliance certifications required under the NO_x Trading Program, including those under 40 CFR 96, Subparts D

and H, and 35 IAC 217.474, pursuant to 35 IAC 217.456(e)(2).

b. Notwithstanding the provisions for CAAPP permits, these submittals need only be signed by the designated representative, who may serve in place of the responsible official for this purpose, as provided by Section 39.5(1) of the Act, and submittals to the Illinois EPA need only be made to the Illinois EPA, Air Compliance Section.

6.1.8 Allocation of NO_x Allowances to Budget Units

a. As the budget units identified in Condition 6.1.2(a) are "new" units and are not listed in 35 IAC Part 217, Appendix E, these units are not entitled to an allocation of NO_x allowances pursuant to 35 IAC 217.462 and 217.466(a).

b. i. As the budget units identified in Condition 6.1.2(a) are "existing" units listed in 35 IAC Part 217, Appendix E, these units are entitled to NO_x allowances as specified by Appendix E, subject to transfers of allowances from the source made in accordance with 35 IAC 217.462(b). (The portion of Appendix E that applies to the Permittee is provided in Condition 6.1.12.) The number of NO_x allowances actually allocated for these budget units shall be the number of NO_x allowances allocated by the Illinois EPA in accordance with 35 IAC 217.466(a) and issued by USEPA, which may reflect adjustments to the overall allocations to budget units as provided for by 35 IAC 217.460 and 217.462(c).

ii. To the extent that NO_x allowances remain in the NSSA after any allocation for new budget units, the Permittee is also entitled to a pro-rata share of such remaining allowances as provided by 35 IAC 217.466(d).

6.1.9 Eligibility to Obtain NO_x Allowances from the New Source Set-Aside (NSSA)

a. In 2004, the Permittee is eligible to obtain NO_x allowances from the NSSA for the budget units identified in Condition 6.1.2(a), as provided by 35 IAC 217.468, because the units are "new" budget units.

b. The Permittee is not eligible to obtain NO_x allowances from the NSSA for the budget units identified in Condition 6.1.2(a), as provided by 35 IAC 217.468, because the units are "existing" budget units.

6.1.10 Eligibility for Early Reduction Credits (ERC)

The Permittee is not eligible to request NO_x allowances for the budget units identified in Condition 6.1.2(a) for any early reductions in NO_x emissions, as provided by 35 IAC 217.470, because these units are new units.

The Permittee is not eligible to request NO_x allowances for the budget units identified in Condition 6.1.2(a) for any early reductions in NO_x emissions prior to the 2004 control period, as provided by 35 IAC 217.470, because these units are not equipped with continuous emission monitoring systems for NO_x.

a. The Permittee did not request NO_x allowances for the budget units identified in Condition 6.1.2(a) for early reductions in NO_x emissions in the 2001 control period in accordance with 35 IAC 217.470.

b. i. The Permittee may pursue NO_x allowances for early reductions in NO_x emissions, i.e., reductions made during the 2002 and 2003 control period, as provided by 35 IAC 217.470.

ii. For the purpose of any such request, the NO_x emissions must have been reduced by 30 percent or more below the actual emission rate of these budget units for the first control period in which credit is requested, pursuant to 35 IAC 217.470(c)(1).

6.1.11 Budget Permit Required by the NO_x Trading Program

a. For this source, this segment of the CAAPP Permit, i.e., Section 6.1, is the Budget Permit required by the NO_x Trading Program and is intended to contain federally enforceable conditions addressing all applicable NO_x Trading Program requirements. This Budget Permit shall be treated as a complete and segregable portion of the source's permit, as provided by 35 IAC 217.458(a)(2).

b. The Permittee and any other owner or operator of this source and each budget unit at the source shall operate the budget units in compliance with this Budget Permit, pursuant to 35 IAC 217.456(b)(2).

c. No provision of this Budget Permit or the associated application shall be construed as exempting or excluding the Permittee, or other owner or operator and, to the extent applicable, the account representative of a budget source or budget unit from compliance with any other regulation or requirement promulgated under the CAA, the Act, the approved State Implementation Plan, or other federally enforceable permit, pursuant to 35 IAC 217.456(g).

d. Upon recordation by USEPA under 40 CFR 96, Subpart F or G, every allocation, transfer, or deduction of an allowance to or from the budget units' compliance accounts or to or from the source's general or overdraft account is deemed to amend automatically and become part of this budget permit, pursuant to 35 IAC 217.456(d)(7). This automatic amendment of this budget permit shall be deemed an operation of law and will not require any further review.

e. No revision of this Budget Permit shall excuse any violation of the requirements of the NO_x Trading Program that occurs prior to the date that the revision to this permit takes effect, pursuant to 35 IAC 217.456(f)(1).

f. The Permittee, or other owner or operator of the source, shall reapply for a Budget Permit for the source as required by 35 IAC Part 217, Subpart U and Section 39.5 of the Act. For purposes of the NO_x Trading Program, the application shall contain the information specified by 35 IAC 217.458(b)(2).

6.1.12 References

35 IAC Part 217 Appendix E - (provisions applicable to the Permittee)

Company I.D. No./ Name	Unit Designation	Unit Description	Budget Allocation	Budget Allocation Less 3% NSSA
115015AAE	85060030081	COAL-FIRED BOILER 1	238	231
115015AAE	85060030081	COAL-FIRED BOILER 2	261	253
115015AAE	85060030081	COAL-FIRED BOILER 3	267	259
115015AAE	85060030082	COAL-FIRED BOILER 4	276	268
115015AAE	85060030082	COAL-FIRED BOILER 5	275	267

Company I.D. No./ Name	Unit Designation	Unit Description	Budget Allocation	Budget Allocation Less 3% NSSA
115015AAE	85060030082	COAL-FIRED BOILER 6	311	302
115015AAE	85060030083	GAS-FIRED BOILER 1	19	18
115015AAE	85060030083	GAS-FIRED BOILER 2	19	18
		Company Total Allocation:	1,666	1,616

7.0 UNIT SPECIFIC CONDITIONS

7.1 Corn Processing

7.1.1 Description

Milling Process: Clean corn from the elevator at the West Plant is conveyed to the mill. Upon arriving in the mill the corn is subjected milling and separations.

Milling: Clean corn from the elevator is steeped in tanks containing hot, acidic water. Adding SO_2 to water produces the steep water. After steeping the corn is subjected to a series of milling operations designed to separate fiber and germ from the corn kernels. The milling equipment consists of a variety of tanks, screens and closed hydraulic equipment. Vents from all of the process tanks are ducted to a common scrubber to reduce fugitive SO_2 emissions.

Separation: After separation of the germ and the fiber the process stream consists of a mixture of starch, gluten and mill water. Gluten is separated from starch by a series of centrifugal operations and both the gluten and the starch are further concentrated. The majority of the separations equipment is enclosed.

North and South Feedhouse: The germ, fiber and gluten are transported to the North and South Feedhouse. The starch is transported to the refinery, ethanol production and other process areas.

The germ slurry is dewatered, dried and either conveyed to the corn oil refinery or is loaded out.

The gluten slurry is dewatered, dried and is transported to storage and loadout.

The fiber slurry is dewatered and dried. Heavy steep water is combined with the fiber at various points in the drying process. The dried feed is conveyed to the pellet mills, ground, treated with steam and then pelletized. The pellets discharge from the pellet mills to the pellet coolers, where it is then stored and loaded out.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Mill		
Corn Storage and Transfer	White Corn Tank and Associated Transfer Equipment	Baghouse
Mill Process Tanks	Corn Milling Process Tanks	Mill House and South Germ Scrubbers
Gluten Filter Vacuum Pumps	Gluten Filter Vacuum Pumps	None
Gluten Recycle Conveying	Conveying	Baghouse
Mill Sulfur Burners 1 & 2	Mill Process Water	None
Fluid Bed Germ Dryer 1	Drying Germ	Scrubber
Fluid Bed Germ Dryer 2	Drying Germ	Scrubber
Rotary Steam Tube Dryer 1A, 1B and 1C	Drying Germ	North and South Germ Scrubbers
Rotary Steam Tube Dryer 2	Drying Germ	North Germ Scrubber
East, Middle and West Germ Coolers	Germ Cooling	North Germ Scrubber
Gluten Meal Dryer 1 & 2	Gluten Meal Drying	Ducon Scrubbers 1 & 2
Gluten Hammermill 1 and 2	Gluten Meal Hammermilling	Baghouse
North and South Feed House		
Fiber Dryer 1	Feed Drying	Ducon 1, West Packed Tower and West Entoleter Scrubbers
Fiber Dryer 2	Feed Drying	Ducon 2, East Packed Tower and East Entoleter Scrubbers
Fiber Dryer 3	Feed Drying	Ducon 3, West Packed Tower and West Entoleter Scrubbers

Emission Unit	Description	Emission Control Equipment
Fiber Dryer 4	Feed Drying	Ducon 4, East Packed Tower and East Entoleter Scrubbers
Fiber Dryer 5	Feed Drying	Ducon 5, Venturi 5 Scrubbers and Dryer RTO 5
Fiber Dryer 6	Feed Drying	Ducon 6, Venturi 6 Scrubbers and Dryer RTO 6
Fiber Dryer 7	Feed Drying	SO_2 Scrubber 7, Wet Electrostatic Precipitator and Dryer RTO 7
Fiber Cooler 1, 2, 3 and 4	Feed Pellet Cooling	North MAC Baghouse
Feed Grinding	Feed Grinding	South MAC Baghouse
Pellet Mill/ Cooler 1	Feed Pelletizing	Pellet Cooler 1 South and North Cyclones
Pellet Mill/ Cooler 2	Feed Pelletizing	Pellet Cooler 2 South and North Cyclones
Pellet Mill/ Cooler 3	Feed Pelletizing	Pellet Cooler 3 South and North Cyclones
Pellet Mill/ Cooler 4	Feed Pelletizing	Pellet Cooler 4 South and North Cyclones
Pellet Mill/ Cooler 5	Feed Pelletizing	Pellet Cooler 5 South and North Cyclones
Pellet Storage and Loadout	Pellet Storage and Loadout	Baghouse
60% Gluten Meal Storage and Loadout	Meal Storage and Loadout	Baghouse
Corn Fines Tank	Corn Fines Storage	Dust Collector
Germ Loadout	Germ Loadout	Dust Collector
Germ Meal Receiving	Germ Meal Receiving	Dust Collector
Boiler 4	Natural Gas-Fired Boiler Rated at 180 MBtu/Hr	None

Emission Unit	Description	Emission Control Equipment
Boiler 5	Natural Gas-Fired Boiler Rated at 120 MBtu/Hr	None
Boiler 6	Natural Gas-Fired Boiler Rated at 120 MBtu/Hr	None
Boiler 9	Natural Gas-Fired Boiler Rated at 100 MBtu/Hr	None
Boiler 10	Natural Gas-Fired Boiler Rated at 100 MBtu/Hr	None
Fiber Drying	Drying Fiber	Baghouses, Cyclones and Scrubbers
Grinding and Pelletizing	Grinding and Palletizing of Fiber	Baghouses, Cyclones and Scrubbers

7.1.3 Applicability Provisions and Applicable Regulations

a. The "affected corn mill" for the purpose of these unit-specific conditions, is the corn mill described in Condition 7.1.1 and 7.1.2.

b. The affected corn mill is subject to the emission limits identified in Condition 5.2.

c. The affected corn mill is subject to 35 IAC 212.462 - Grain Handling Operations

Unless otherwise exempted pursuant to 35 IAC 212.461(c) or (d), or allowed to use alternate control according to 35 IAC 212.461(g), existing grain-handling operations with a total annual grain through-put of 300,000 bushels or more shall demonstrate compliance with the following [35 IAC 212.462]:

Cleaning and Separating Operations: [35 IAC 212.462(a)]

i. Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere [35 IAC 212.462(a)(1)].

ii. For grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere [35 IAC 212.462(a)(2)].

iii. For grain-handling sources having a grain through-put exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere [35 IAC 212.462(a)(3)].

Major Dump-Pit Area: [35 IAC 212.462(b)]

Induced Draft [35 IAC 212.462(b)(1)]

iv. Induced draft shall be applied to major dump pits and their associated equipment (including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation: [35 IAC 212.462(b)(1)(A)]

$$V = Q/A$$

Where:

V = Face velocity

Q = Induced draft volume in scfm

A = Effective grate area in ft^2

v. The induced draft air stream for grain-handling sources having a grain through-put of

not more than 2 million bushels per year or located outside a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 90 percent by weight; and [35 IAC 212.462(b)(1)(B)]

vi. The induced draft air stream for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98 percent by weight; and [35 IAC 212.462(b)(1)(C)]

vii. Means or devices (including, but not limited to, quick-closing doors, air curtains or wind deflectors) shall be employed to prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately 2 ft; or [35 IAC 212.462(b)(1)(D)]

Any equivalent method, technique, system or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with 35 IAC 212.462(b)(1) [35 IAC 212.462(b)(2)].

Internal Transferring Area: [35 IAC 212.462(c)]

viii. Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere [35 IAC 212.462(c)(1)].

ix. Air contaminants collected from internal transfer operations for grain-handling sources

having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

x. Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

Load-Out Area: [35 IAC 212.462(d)]

xi. Truck and hopper car loading shall employ socks, sleeves or equivalent devices which extend 6 inches below the sides of the receiving vehicle, except for topping off. Choke loading shall be considered an equivalent method as long as the discharge is no more than 12 inches above the sides of the receiving vehicle [35 IAC 212.462(d)(1)].

xii. Box car loading shall employ means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent which is technologically and economically feasible [35 IAC 212.462(d)(2)].

Watercraft Loading: [35 IAC 212.462(d)(3)]

xiii. Particulate matter emissions generated during loading for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate matter removal efficiency of not less than 90 percent by weight prior to release into the atmosphere [35 IAC 212.462(d)(3)(A)].

xiv. Particulate matter emissions generated during loading for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere; except for the portion of grain loaded by trimming machines for which particulate matter emission reductions, at a minimum, shall equal the reduction achieved by compliance with 35 IAC 212.462(d)(3)(A) [35 IAC 212.462(d)(3)(B)].

d. Alternate Control of Particulate Emissions [35 IAC 212.461(g)].

i. Grain-handling or grain-drying operations, which were in numerical compliance with 35 IAC 212.322, as of April 14, 1972, and continue to be in compliance with 35 IAC 212.322 need not comply with the provisions under 35 IAC 212.461, except the housekeeping practices in 35 IAC 212.461(b) [35 IAC 212.461(g)(1)].

ii. Grain-handling or grain-drying operations, which were not in numerical compliance with 35 IAC 212.322, as of April 14, 1972, but which came into compliance with 35 IAC 212.321 prior to April 14, 1972, and continue to be in compliance with 35 IAC 212.321 need not comply with the provisions under 35 IAC 212.461, except the housekeeping practices in 35 IAC 212.461(b) [35 IAC 212.461(g)(2)].

iii. Proof of compliance with 35 IAC 212.461(g) shall be made by stack sampling and/or material balance results obtained from actual testing of the subject emission unit or process and be submitted at the time of an application for, or renewal of, an operating permit [35 IAC 212.461(g)(3)].

e. The affected corn mill’s emission units not subject to 35 IAC 212.462 – Grain Handling Operations or 35 IAC 212.463 – Grain Drying Operations that were constructed prior to April 14, 1972 and were not

modified thereafter are subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 10.3) [35 IAC 212.322(a)].

f. The affected corn mill's emission units not subject to 35 IAC 212.462 – Grain Handling Operations or 35 IAC 212.463 – Grain Drying Operations constructed or modified on or after April 14, 1972 are subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 10.2) [35 IAC 212.321(a)].

g. The affected corn mill is subject to 35 IAC 215.301, which provides that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and non-photochemically reactive materials are used [35 IAC 215.301].

h. The affected corn mill is subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

i. The affected corn mill is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and

incorporated herein by reference (See Attachments 10.1).

7.1.4 Non-Applicability of Regulations of Concern

N/A

7.1.5 Operational and Production Limits and Work Practices

None

7.1.6 Emission Limitations

a. The affected corn mill is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.1.7 Testing Requirements

a. The affected corn mill is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items

for the affected corn mill to demonstrate compliance with Conditions 5.5.1, 7.1.3 and 7.1.6 pursuant to Section 39.5(7)(b) of the Act:

a. The affected corn processing operation is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected corn mill with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected corn processing operation is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.1.12 Compliance Procedures

a. To determine compliance with Conditions 5.5.1 and 7.1.6, PM emissions from the affected corn mill shall be calculated based on:

i. The applicable emission factors for grain elevators and grain processing, Tables 9.9.1-1 and 9.9.1-2, AP-42, Volume I, Fifth Edition, Supplement D, May, 1998, or current edition, or

ii. The applicable emission factors for corn wet milling, Tables 9.9.7-1 and 9.9.7-2, AP-42, Volume I, Fifth Edition, January 1995, or current edition, or

iii. The results of emission test(s) on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Agency.

b. Compliance shall be determined using the recordkeeping requirements in Condition 7.1.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.2 Alcohol

7.2.1 Description

Alcohol is produced from starch in the following operations:

Propagation: Yeast is produced in the propagation step. Each propagator is seeded with fresh yeast at staggered intervals. The yeast multiplies and matures and is later added in the fermentation step.

Fermentation: Mash (starch, light steep water, stillage and yeast) is fermented to produce beer. The alcohol concentration increases as the mixture passes through a series of fermenters.

Distillation: The beer is directed to the 190-distillation process. In this process 190 alcohol, stillage and fusel oil are produced. 190 proof alcohol is transported to the 200 proof dehydration process where the remaining 5% of water is removed.

Evaporation: Stillage is evaporated in MR evaporators and piped to the feed house.

Ethanol Storage and Loadout: There are several storage tanks for steep water, stillage, ethanol, fusel oil, denaturant and various other tanks. The alcohol is filtered and loaded into either truck or rail.

CO_2 Production: CO_2 is a byproduct of the fermentation process. The CO_2 is collected, compressed and is purified by passing it through zinc columns, carbon columns, filters and dryer columns. The CO_2 is stored prior to loadout.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Alcohol		
Propagators 4 through 10	Yeast Propagation	CO_2 Scrubber
Propagators 11 and 12	Yeast Propagation	CO_2 Scrubber
Fermentators X-1 to X-14	Fermentation	CO_2 Scrubber

Emission Unit	Description	Emission Control Equipment
Fermentators 1-A to 5-A, 1-B to 6-B, 2-C to 6-C and 1-D and 6-D	Fermentation	CO_2 Scrubber
Fermenter 15 through 20 (A-Train)	Fermentation to Produce Ethanol	None
Fermenter 21 through 26 (B-Train)	Fermentation to Produce Ethanol	None
Fermenter 27 through 32 (C-Train)	Fermentation to Produce Ethanol	None
Fermenter 33 through 39 (D-Train)	Fermentation to Produce Ethanol	None
Fermenter 40 through 49 Refinery (E-Train)	Fermentation to Produce Ethanol	None
Alcohol MR Evaporators 1 to 6	Six Evaporators of Stillage	Scrubber
Distillation	Distillation of Ethanol	Scrubbers and Condensers
Reflux Stripper	Removal of Ethanol from Vapors	Vent Scrubber
Caustic Stripper	Removal of Caustic	
CO_2 Stripper Column	Removal of Ethanol from CO_2	
Nitrogen Stripper		Scrubber
CO_2 Liquefaction	Liquefaction of CO_2 Produced from Fermentation	None
Beer Well 1 and 2	Beer Storage	CO_2 Scrubber
Beer Still/ Rectifier 1, 2, 3 and 4	Distillation	Vent Scrubber
Beer Still/ Rectifier 5	Distillation	Vent Scrubber
Beer Still/ Rectifier 6	Distillation	Vent Scrubber

Emission Unit	Description	Emission Control Equipment
Alcohol Storage Tanks 1, 2, 3 and 4	Storage of Alcohol	None
Fusel Oil Storage Tank	Fusel oil Storage	None
MST Storage Tanks 5, 6 & 7		None
D-5, D-6 Gasoline Tanks		None
Alcohol Storage and Loadout	Loadout of Ethanol	Flare

7.2.3 Applicability Provisions and Applicable Regulations

a. The "affected alcohol process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.2.1 and 7.2.2.

b. The affected alcohol process is subject to the emission limits identified in Condition 5.2.

c. The affected alcohol process is subject to 35 IAC 215.301, which provides that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit unless no odor nuisance exists and non-photochemically reactive materials are used [35 IAC 215.301].

d. The affected alcohol process is subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

e. The affected alcohol process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.2.4 Non-Applicability of Regulations of Concern

N/A

7.2.5 Operational and Production Limits and Work Practices

None

7.2.6 Emission Limitations

a. The affected alcohol process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.2.7 Testing Requirements

a. The affected alcohol process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected alcohol process to demonstrate compliance with Conditions 5.5.1, 7.2.3 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected alcohol process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have

been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected alcohol process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.2.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.2.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.3 Refinery

7.3.1 Description

Starch is converted to dextrose via enzymes. The dextrose mixture is cooled, filtered and converted to fructose via enzymes. Both dextrose and fructose corn syrup pass through carbon to remove color bodies and odors. A portion of the fructose corn syrup is fractionated to produce an enriched corn syrup. All grades of corn syrup are stored prior to loadout. A portion of the fructose produced is further modified to produce other products.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Refinery		
Carbon Furnace 1	Regeneration of Carbon	Scrubber and RTO
Carbon Furnace 2	Regeneration of Carbon	Scrubber and RTO
Carbon Furnace 3	Regeneration of Carbon	Scrubber and RTO
Dextrose MR Evaporator 1	Removal of Water from Dextrose	None
Dextrose MR Evaporator 2	Removal of Water from Dextrose	None
Dextrose MR Evaporator 3	Removal of Water from Dextrose	None
Dextrose MR Evaporator 4	Removal of Water from Dextrose	None
Dextrose MR Evaporator 6	Removal of Water from Dextrose	None
No. 1 42 MR Evaporator	Removal of Water from Fructose	None
F3 MR Evaporator	Removal of Water from Fructose	None
Split MR Evaporator	Removal of Water from Dextrose and Fructose	None
90 MR Evaporator	Removal of Water from Fructose	None
99 MR Evaporator	Removal of Water from Fructose	None
D5 MR Evaporator	Removal of Water from Dextrose	None
7% HCL Tanks 1, 2 & 3 (Inside)	HCL Storage Tanks	Acid Scrubber

Emission Unit	Description	Emission Control Equipment
35% HCL Tanks 1 through 8 (Outside)	HCL Storage Tanks	Acid Scrubber
Filter Aid Storage Silo	Storage Silo	Baghouse

7.3.3 Applicability Provisions and Applicable Regulations

a. The "affected refinery " for the purpose of these unit-specific conditions, are the emission units described in Condition 7.3.1 and 7.3.2.

b. The affected refinery is subject to the emission limits identified in Condition 5.2.

c. The affected refinery is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.3.4 Non-Applicability of Regulations of Concern

N/A

7.3.5 Operational and Production Limits and Work Practices

None

7.3.6 Emission Limitations

a. The affected refinery is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.3.7 Testing Requirements

a. The affected refinery is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected refinery to demonstrate compliance with Conditions 5.5.1, 7.3.3 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected refinery is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected refinery with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected refinery is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.3.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.2.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.4 Waste Treatment

7.4.1 Description

The Decatur Corn Processing waste treatment plant utilizes aerobic treatment with both settling and dissolved air floatation secondary clarification. The process is divided into two separate streams, some of which is recycled back into the plant as cooling tower make-up, with the remainder being discharged to a municipal sanitary treatment facility.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Wastewater Treatment		
Anaerobic Wastewater Treatment System	Wastewater Treatment	Scrubber Systems 1 and 2 and Flare
Equalization Tanks	Treatment of Wastewater	
Aeration Tanks	Treatment of Wastewater	

7.4.3 Applicability Provisions and Applicable Regulations

a. The "affected waste treatment plant" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.4.1 and 7.4.2.

b. The affected waste treatment plant is subject to the emission limits identified in Condition 5.2.

c. The affected waste treatment plant is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.4.4 Non-Applicability of Regulations of Concern

N/A

7.4.5 Operational and Production Limits and Work Practices

None

7.4.6 Emission Limitations

a. The affected waste treatment plant is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.4.7 Testing Requirements

a. The affected waste treatment plant is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected waste treatment plant to demonstrate compliance with Conditions 5.5.1, 7.4.3 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected waste treatment plant is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected waste treatment plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected waste treatment plant is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.4.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.4.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.5 Cogeneration

7.5.1 Description

There are eleven (11) boilers within the cogeneration plant. Coal-fired boilers numbers 1 through 9 are coal-fired boilers with a circulating, fluidized-bed combustion configuration. Coal and limestone for the boilers are received by truck and rail. The fly ash and bed ash from the coal-fired boilers is collected and conveyed to the ash silos. Natural gas-fired boilers 1 and 2 are package boilers.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Cogeneration		
Cogen Boilers 1 through 5	Coal-Fired Boilers Rated at 492 MBtu/Hr	Baghouses
Cogen Boiler 6	Coal-Fired Boiler Rated at 700 MBtu/Hr	Baghouse
Cogen Boiler 7	Coal-Fired Boiler Rated at 750 MBtu/Hr	Baghouse
Cogen Boiler 8	Coal-Fired Boiler Rated at 1500 MBtu/Hr	Baghouse
Boiler 9		
Package Boiler 1 & 2	Natural Gas-Fired Boilers Rated at 350 MBtu/Hr	None
Coal Unloading	Unloading of Coal	Dust Collector
Limestone Unloading	Unloading of Limestone	Dust Collector
Coal Crusher 1	Coal Crusher	Dust Collector
Fly Ash Silo	Storage Silo	Baghouse
Bed Ash Silo	Storage Silo	Baghouse
HCL Storage Tank 1, 2 & 3	Storage Tanks	Scrubber

7.5.3 Applicability Provisions and Applicable Regulations

a. The "affected cogeneration plant" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.5.1 and 7.5.2.

b. The affected cogeneration plant is subject to the emission limits identified in Condition 5.2.

c. The affected cogeneration plant is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.5.4 Non-Applicability of Regulations of Concern

N/A

7.5.5 Operational and Production Limits and Work Practices

None

7.5.6 Emission Limitations

a. The affected cogeneration plant is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.5.7 Testing Requirements

a. The affected cogeneration plant is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected cogeneration plant to demonstrate compliance with Conditions 5.5.1, 7.5.3 and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected cogeneration plant is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected cogeneration plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected cogeneration plant is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.5.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.5.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.6 Water Treatment Plant

7.6.1 Description

Water Treatment Plant

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment

7.6.3 Applicability Provisions and Applicable Regulations

a. The "affected water treatment plant" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.6.1 and 7.6.2.

b. The affected water treatment plant is subject to the emission limits identified in Condition 5.2.

c. The affected water treatment plant is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.6.4 Non-Applicability of Regulations of Concern

N/A

7.6.5 Operational and Production Limits and Work Practices

None

7.6.6 Emission Limitations

a. The affected water treatment plant is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major

modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.6.7 Testing Requirements

a. The affected water treatment plant is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected water treatment plant to demonstrate compliance with Conditions 5.5.1, 7.6.3 and 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected water treatment plant is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected water treatment plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected water treatment plant is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.6.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.6.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.7 Bioproducts

7.7.1 Description

Astaxanthin: Phaffia yeast, which contains the carotenoid astaxanthin, is produced via fermentation. Yeast cells are recovered from the fermentation broth, concentrated and dried in a natural gas fired spray drier. Dried product is removed from the air stream in a series of cyclones: particulate emissions are controlled by a baghouse containing fabric filters. The dried astaxanthin is then packaged for distribution; particulate emissions during packaging are controlled by a baghouse containing fabric filters.

Lactic Acid: The lactic acid finishing process involves purifying food grade lactic acid through esterification, distillation and rehydration. Purified lactic acid is the main product of this process. The esterification process results in ethyl lactate, which is also loaded out as a product.

Crystalline Sorbitol: Sorbitol liquor is transferred from the Corn Processing Plant refinery, dried, sifted, packaged and loaded out. Particulate emissions are controlled by a baghouse.

Lysine/Ammonium Sulfate: Lysine is one of the nine essential amino acids that cannot be synthesized within the body, and therefore, must be consumed in some form. Lysine is manufactured by continuously spraying a solution of aqueous lysine into fourteen parallel, steam heated, fluidized bed spray dryers. The remaining product is removed from the dryer exhaust by a fabric filter, which is built into the top of each of the dryers. The dried lysine is then cooled, screened and packaged. Particulate matter emissions during the cooling, screening and packaging operations are controlled by baghouse with fabric filters.

Threonine: Threonine is one of the nine essential amino acids that cannot be synthesized within the body, and therefore, must be consumed in some form. Threonine is produced via fermentation. Threonine is recovered from the fermentation broth, concentrated and purified. The recovered threonine crystal is then dried in steam heated fluidized bed dryers, screened and packaged. Particulate emissions during the drying, screening and packaging operations are controlled by baghouse with fabric filters.

Xanthan Gum: Xanthan Gum is a synthetic, water-soluble bipolymer made by fermentation of carbohydrates. It has many uses in the food and pharmaceutical fields, especially in the prepared mixed and high-protein fast foods.

Xanthan Gum is precipitated from the fermentor broth, prior to drying in the closed loop, steam heated dryer. The drying process is sealed except for a small vent that is scrubbed for isopropanol (IPA) emissions by a packed bed scrubber. In addition to the dryer vent, IPA process tanks and three distillation columns are vented to the packed bed scrubber. The distillation columns are used to distill a 60% IPA azeotrope to 85 % purity.

Xanthan Gum from the closed loop dryer is then milled, screened and blended. The processed Xanthan Gum can be packaged at this point or can be packaged after being agglomerated as either food grade or industrial grade Xanthan Gum.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Lactic Acid		
Esterification Columns 3, 7 and 10	Esterification	Wet Scrubber
Rehydration Columns 8 & 11	Rehydration	
Columns 9 & 12	Lactic Acid Concentration	
Tanks 25 & 26 (Ester)	Ester Storage Tanks	
Tanks 27 & 28 (Ethanol)	Ethanol Storage Tanks	
Ethyl Lactate Refining Columns 1 & 5	Ethyl Lactate Refining	
Tanks 17 & 18	Final Product Storage	None
HCl Tank	Storage Tank	None
Crystalline Sorbitol		
Mill, Sifter, Packaging	Packaging of Crystalline Sorbitol	Baghouse
Packaging Vacuum System	Packaging of Crystalline Sorbitol	Baghouse

Emission Unit	Description	Emission Control Equipment
Astaxanthin		
Drying, Cooling and Packaging	Astaxanthin Production	Baghouse
Product Tank with Blender	Astaxanthin Production	Baghouse
Packaging	Astaxanthin Packaging-B81 Warehouse	Baghouse
Lysine/Ammonium Sulfate		
Spray Dryer 1, 2 and 3	Drying of Lysine	Baghouses
Spray Dryers 5 and 6	Drying of Lysine	Baghouses
Spray Dryer 4, 7, 8 and 9	Drying of Lysine	Baghouses
Spray Dryer 10	Drying of Lysine	Baghouse
Spray Dryer 11, 12, 13 and 14	Drying of Lysine	Baghouse
Cooling, Grinding/ Sifting and Packaging	Lysine Production	Baghouse
Spray Dryers 15 and 16	Drying of Lysine	Baghouse
Amino Acid Packaging Tower	Lysine Packaging	Baghouse
Bulk Loadout	Lysine	Baghouse
Threonine		
Dryer 1 and 2	Drying of Threonine	Baghouse
Transfer System	Threonine Production	Baghouse
Compaction/ Grinding, Sifting and Packaging	Threonine Production	Baghouse
Re-Work System	Threonine Production	Baghouse
Two Threonine Dryers	Drying of Threonine	Baghouse
North Transfer Line	Transfer of Threonine	Baghouse
Transfer Line	Transfer of Threonine	Baghouse
Transfer Line II	Transfer of Threonine	Baghouse

Emission Unit	Description	Emission Control Equipment
Sifting/ Grinding, Storage and Packaging	Threonine Production	Baghouse
Spray Dryer A, B and C	Drying of Threonine	Baghouses
Packaging, Sifting and Grinding	Threonine Production	Baghouse
Xanthan Gum		
Distillation Column I and II	IPA Distillation	Packed Tower Scrubber
Distillation Column III	IPA Distillation	Wet Scrubber
Screw Process Food & Industrial	IPA Distillation, Precipitation and Xanthan Gum Drying	Wet Scrubber
DSM Screens Food & Industrial	IPA Distillation, Precipitation and Xanthan Gum Drying	Wet Scrubber
4 Drop Tanks	Xanthan Gum Process Tanks	Tank Vent Condensor-Wet Scrubber
North & South Precipitation Tanks	Xanthan Gum Process Tanks	Tank Vent Condensor-Wet Scrubber
Still Feed Tank I and II	Process Tanks	Wet Scrubber
Still Feed Tank III	Process Tank	Packed Tower Scrubber
Fresh/Make-Up IPA Tank	Storage Tank	Wet Scrubber
Distilled IPA Tank	Process Tank	Wet Scrubber
Xanthan Gum Turbo Dryer	Drying of Xanthan Gum	Wet Scrubber
Agglomerate Dryers I, II and III	Agglomeration of Food/Industrial-Grade Xanthan Gum	Baghouses
Screen and Packaging I and II	Screening and Packaging of Food/Industrial Xanthan Gum	Baghouses

Emission Unit	Description	Emission Control Equipment
Blending, Sifting/ Grinding and Storage Gum Transfer I and II	Processing, Storage & Transfer of Food/Industrial Xanthan Gum	Baghouse
Blending and Packaging Line	Blending and Packaging of Food Grade Xanthan Gum	Baghouse
BioProducts Miscellaneous		
Process Tanks Vent Odor Scrubber	Miscellaneous Process Tank Vents	Wet Scrubber
Bio II Pilot Fermentation System	Pilot Fermentation System	Wet Scrubber
Bio I Pilot Fermentation System	Pilot Fermentation System	Wet Seed Scrubber, Wet Main Scrubber
Calcium Carbonate Slurry Tank	Calcium Carbonate Slurry Tank	Baghouse
Calcium Carbonate Storage	Calcium Carbonate Storage	Bin Vent
Calcium Carbonate Storage	Calcium Carbonate/ Hydroxide Storage	Bin Vent
Bio I Fermenters	Bio I Fermentation	Entrainment Separators
Bio II Fermenters	Bio II Fermentation	Wet Scrubber
Hydrochloric Acid Storage Tanks	Four Storage Tanks	Wet Scrubber

7.7.3 Applicability Provisions and Applicable Regulations

a. The "affected Bioproducts plant" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.7.1 and 7.7.2.

b. The affected Bioproducts plant is subject to the emission limits identified in Condition 5.2.

c. The affected Bioproducts plant is subject to regulations established in State Construction and

Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.7.4 Non-Applicability of Regulations of Concern

N/A

7.7.5 Operational and Production Limits and Work Practices

None

7.7.6 Emission Limitations

a. The affected Bioproducts plant is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.7.7 Testing Requirements

a. The affected Bioproducts plant is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items

for the affected Bioproducts plant to demonstrate compliance with Conditions 5.5.1, 7.7.3 and 7.7.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected Bioproducts plant is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected Bioproducts plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected Bioproducts plant is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.7.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.7.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.8 Combined with 7.7

7.9 Receiving/Conveying

7.9.1 Description

Receiving/Conveying: Receiving/Conveying operations include the receipt of raw grain by rail and truck, storage and processing. In addition the grain could be dried if required.

There are five aspirated truck-unloading stations in addition to an aspirated railcar unloading station at the ADM-Decatur East Complex. The grain is unloaded and conveyed to the elevators for storage or conveyed directly to the grain preparation area. Certain conditions require beans to be dried prior to storage. The raw grain is then transferred through elevator legs to process bin, all of which are aspirated and controlled.

Particulate matter emissions are associated with the grain unloading stations, conveyers, elevator legs, dryers and process bins. In addition, the grain dryers have emissions associated with the combustion of natural gas.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Receiving/Conveying		
Truck Dump Stations	Five Grain Truck Dump Stations	3 Baghouses
Belt Conveyor Legs	Three Grain Conveyors	Baghouse
Rail Car Dump	Rail Car Dump	Baghouse
Dryers	Two Grain Dryers	Cyclone
Screw Conveyor	Grain Conveying	Baghouse
Drag Conveyor	Grain Conveying	Baghouse
Corn and Bean Legs	Grain Conveying	Baghouse

7.9.3 Applicability Provisions and Applicable Regulations

a. The "affected receiving and conveying operation" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.9.1 and 7.9.2.

b. The affected receiving and conveying operation is subject to the emission limits identified in Condition 5.2.

c. The affected receiving and conveying operation is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.9.4 Non-Applicability of Regulations of Concern

N/A

7.9.5 Operational and Production Limits and Work Practices

None

7.9.6 Emission Limitations

a. The affected receiving and conveying operation is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.9.7 Testing Requirements

a. The affected receiving and conveying operation is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.9.8 Monitoring Requirements

None

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected receiving and conveying operation to demonstrate compliance with Condition 5.5.1, 7.9.3 and 7.9.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected receiving and conveying operation is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected receiving and conveying operation with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected receiving and conveying operation is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.9.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.9.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.10 Grain Preparation

7.10.1 Description

The Grain Preparation area is used to prepare the soybean for the solvent extraction process. Following initial screening and scrap separation, the soybeans are heated in a fluidized bed steam dryer followed by the cracking and separation of the bean from the hull. The preparation processes has aspiration systems and collectors designed to separate the beans from the hull. Following the hot bean aspiration system, beans are rolled into flakes and transferred to the extraction system. Rotexes and aspirators further separate the hulls. Grinding is followed by pelleting and pellet cooling of the hull pellets, which are then transferred to bulk loadout tanks.

Elevator B consists of process legs primarily designed for the handling of numerous products from the processing of soy flakes throughout the East Complex. The emissions from this area include particulate matter generated from three baghouses that aspirate and collect dust from the legs, conveyors, bins and blow lines.

7.10.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Grain Preparation		
Grain Preparation Equipment	Grain Preparation	Baghouse
Hot Bean Aspiration	Cracked Soybeans are Aspirated	Cyclone
Secondary De-Hulling	Collection Device for Hull Rotexes, Aspirators and Grinders	Baghouse
Dryer/ Conditioner and Aspirators	Fluidized Bed Soybean Dryer	Cyclone
Flaking Rolls	Cracked Soybeans are Processed into Flakes	Cyclone
Pellet Cooler	Hulls are Cooled and Collected	Cyclone

7.10.3 Applicability Provisions and Applicable Regulations

a. The "affected grain preparation and elevator B" for the purpose of these unit-specific conditions, are

the emission units described in Condition 7.10.1 and 7.10.2.

b. The affected grain preparation and elevator B is subject to the emission limits identified in Condition 5.2.

c. The affected grain preparation and elevator B is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.10.4 Non-Applicability of Regulations of Concern

N/A

7.10.5 Operational and Production Limits and Work Practices

None

7.10.6 Emission Limitations

a. The affected grain preparation and elevator B is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.10.7 Testing Requirements

a. The affected grain preparation and elevator B is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and

incorporated herein by reference (See Attachments 10.1).

7.10.8 Monitoring Requirements

None

7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected grain preparation and elevator B to demonstrate compliance with Conditions 5.5.1, 6.9.3 and 7.10.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected grain preparation and elevator B is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected grain preparation and elevator B with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected grain preparation and elevator B is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.10.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.10.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.11 Soybean Extraction and Oil Refining

7.11.1 Description

After soy meat is separated from the hulls, the soy oil is extracted from the flakes. The soybean flakes from the grain preparation process go through the extractor and to either the desolventizer toaster dryer cooler (conventional flakes) process line or any of the specialty flake desolventizing lines. After the flakes are processed they can be sifted and ground and transferred to Elevator B. The main emissions from this are particulate matter emissions from the dryers, five coolers and meal sifters and grinders. The extraction process is also the source of hexane emissions. The oil refinery consists of numerous processes intended to refine the soybean oil.

7.11.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Soybean Extraction and Oil Refining		
New DTDC	Soy Flakes are Dried	2 Cyclones
East, Center and West Coolers	Soy Flakes are Cooled	3 Baghouses
Toaster Cooler	Soy Flakes are Toasted	Cyclone
Meal Sifters and Grinders	Soy Flake Sifting and Grinding	Baghouse

7.11.3 Applicability Provisions and Applicable Regulations

a. The "affected soybean extraction and oil refining process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.11.1 and 7.11.2.

b. The affected soybean extraction and oil refining process is subject to the emission limits identified in Condition 5.2.

c. The affected soybean extraction and oil refining process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.11.4 Non-Applicability of Regulations of Concern

N/A

7.11.5 Operational and Production Limits and Work Practices

None

7.11.6 Emission Limitations

a. The affected soybean extraction and oil refining process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.11.7 Testing Requirements

a. The affected soybean extraction and oil refining process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.11.8 Monitoring Requirements

None

7.11.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected soybean extraction and oil refining process to demonstrate compliance with Conditions 5.5.1, 7.11.3 and 7.11.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected soybean extraction and oil refining process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.11.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected soybean extraction and oil refining process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected soybean extraction and oil refining process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.11.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.11.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.12 Textured Vegetable Protein

7.12.1 Description

The textured vegetable protein (PVT) process receives defatted flakes in a process tank, followed by weighing and transfer through one of six process extruder lines. Following the extrusion, the wet flakes may be ground and then dried by one of four dryers, and all steam heated with the exception of one natural gas dryer. The final step is packaging and loadout. The emission units consist of several cyclones, grinders, aspiration system baghouses and the four dryers. The primary emissions from these processes are particulate matter.

7.12.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Textured Vegetable Protein		
Receiving Tanks	Receiver Tanks	3 Baghouses
Bucket Elevator	Elevator	Baghouse
Extruders	Extrudes Soybean Material	Cyclones
Blenders/ Surge Bins	Grinds Soybean Material	2 Baghouses
Dryers	Steam Drying of Soybean Material	4 Baghouses

7.12.3 Applicability Provisions and Applicable Regulations

a. The "affected textured vegetable protein process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.12.1 and 7.12.2.

b. The affected textured vegetable protein process is subject to the emission limits identified in Condition 5.2.

c. The affected textured vegetable protein process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.12.4 Non-Applicability of Regulations of Concern

N/A

7.12.5 Operational and Production Limits and Work Practices

None

7.12.6 Emission Limitations

a. The affected textured vegetable protein process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.12.7 Testing Requirements

a. The affected textured vegetable protein process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.12.8 Monitoring Requirements

None

7.12.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected textured vegetable protein process to

demonstrate compliance with Conditions 5.5.1, 7.12.3 and 7.12.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected textured vegetable protein process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.12.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected textured vegetable protein process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected textured vegetable protein process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.12.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.12.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.12.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.13 Flour Mills A and C

7.13.1 Description

The Flour Mill A process includes grinding/sizing and modification of the soy flakes following the extraction processes into a wide variety of flour products. The main emission sources include grinders, flake receivers and transfer and aspiration systems. Following the grinding/sizing the flour is either transported to the C Mill for packaging and loadout or is transferred to the bulk tanks for bulk loadout or storage within the A mill.

7.13.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Flour Mill A		
Old Flour Mill System	Grinding/Receiving	Baghouse
Annex III Flour Grinding	Grinding	Baghouse
Annex IV Flake Receiving	Receiving	Baghouse
Annex IV Flour Grinding	Grinding	Baghouse
Arsoy Pelletizing System	Receiver/Pelletizing	Cyclone
Annex II Flake Filter, East Grinder, West Grinder	Soy Flakes Ground into Soy Fiber	3 Baghouses
Annex III Flake Filter	Soy Flakes Ground into Soy Fiber	Baghouse and Cyclone
Annex Flour Flake	Defatted Soy Flakes Product Receiver	Baghouse
Annex Flour System	Flour Grinding and Conveying Processes	Baghouse
Annex Grit Flake Receiver	Defatted Soy Flakes Product Receiver	Baghouse
Bulk Loadout #3, #5 and #6 Tank Receivers	Bulk Loadout of Soy Flour	2 Baghouses 1 Bin Vent
Fast Freddy Separator	Separator for Soy Flour	Baghouse
Old Grit System Receiver	Receiver for Defatted Soy Flakes	Baghouse
3rd Floor Grit Pneumafil	Isolated Soy Flakes Transfer Equipment	Baghouse

Emission Unit	Description	Emission Control Equipment
Flour Mill C		
Annex II Pack Tank Receiver	Packaging of Soy Flour	4 Bin Vents
Annex III Finished Product Receiver	Packaging of Soy Flour	Baghouse
SPC Dual Spout Bagger	Packaging of Soy Flour	Baghouse
East Receiver	Transfer of Soy Protein	Baghouse
Flour Packer	Packaging of Soy Flour	Baghouse
West Receiver	Transfer of Soy Protein	Baghouse
Hoffman Central Vacuum System	Central Vacuum System	Baghouse
Dual Spout Bagger	Packaging of Isolated Soy Flour	Baghouse
Oil Blend Flour Receiver	Receiver for Defatted Soy Flakes Flour	Baghouse
Oil Blend System Grinder	Oil Blend System	Baghouse
Soybean Meal Loadout	Meal and Hulls Loadout	Baghouse
East Isolate Packer Receiver	Packaging Control System	Baghouse

7.13.3 Applicability Provisions and Applicable Regulations

a. The "affected flour mills A and C" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.13.1 and 7.13.2.

b. The affected flour mills A and C are subject to the emission limits identified in Condition 5.2.

c. The affected flour mills A and C are subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.13.4 Non-Applicability of Regulations of Concern

N/A

7.13.5 Operational and Production Limits and Work Practices

None

7.13.6 Emission Limitations

a. The affected flour mills A and C are subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.13.7 Testing Requirements

a. The affected flour mills A and C are subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.13.8 Monitoring Requirements

None

7.13.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected flour mills A and C to demonstrate compliance with Conditions 5.5.1, 7.13.3 and 7.13.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected flour mills A and C are subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have

been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.13.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected flour mills A and C with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected flour mills A and C are subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.13.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.13.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.13.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.14 Isolate I, II, III and Industrial

7.14.1 Description

The isolate process starts with defatted soy flakes and ends with the production of purified soy protein and soy fiber. The defatted soy flakes are sent through the extractor where the fiber protein is separated. The protein is then purified, dried and sent to packaging. The fiber is dried in rotary steam dryers and sent to packaging.

7.14.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Industrial Isolate		
Defatted White Flakes Tanks	Receiver of White Flakes	Baghouse
Rotary Dryers	Rotary Fiber Drying of Defatted Soy Flakes	Cyclone and Baghouse
Lime Tank	Lime Receiving	Baghouse
Isolate I		
Defatted White Flakes Tank	Receiver of Defatted White Flakes	Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Defatted White Flakes	Baghouse
Spray Dryer West	Spray Dryer for Defatted White Flakes	Cyclones and 2 Baghouses
Spray Dryer Center	Spray Dryer for Defatted White Flakes	Cyclones and 2 Baghouses
Spray Dryer East	Spray Dryer for Defatted White Flakes	Cyclones and 2 Baghouses
Isolate II		
Defatted White Flakes Tank	Receiver of Defatted Soy Flakes	Cyclone and Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Defatted Soy Flakes	Baghouse
Spray Dryer	Spray Fiber Dryer for Defatted Soy Flakes	Baghouses
Isolate III		
Defatted Flake Tank	Receiver of Isolate Soy Flakes	Baghouse
Rotary Dryers	Two Rotary Fiber Dryers for Isolate Soy Flakes	Baghouse
Grinding	Grinding Process	Baghouse

Emission Unit	Description	Emission Control Equipment
Spray Dryer	Spray Dryer for Defatted Soy Flakes	4 Baghouses

7.14.3 Applicability Provisions and Applicable Regulations

a. The "affected isolate I, II and III process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.14.1 and 7.14.2.

b. The affected isolate I, II and III processes are subject to the emission limits identified in Condition 5.2.

c. The affected isolate I, II and III processes are subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.14.4 Non-Applicability of Regulations of Concern

N/A

7.14.5 Operational and Production Limits and Work Practices

None

7.14.6 Emission Limitations

a. The affected isolate I, II and III processes are subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the

current month plus the preceding 11 months (running 12 month total) [T1].

7.14.7 Testing Requirements

a. The affected isolate I, II and III processes are subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.14.8 Monitoring Requirements

None

7.14.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected isolate I, II and III processes to demonstrate compliance with Conditions 5.5.1, 7.14.3 and 7.14.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected isolate I, II and III processes are subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.14.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected isolate I, II and III processes with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected isolate I, II and III processes are subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.14.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.14.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.14.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.15 Soy Protein Concentrate

7.15.1 Description

The soy protein concentrate process starts with defatted soy flakes and ends with concentrated soy protein. The flakes are processed in one of two extractor systems depending on the desired product. The extractor separates the simple and complex sugars from the flakes using ethanol as the extraction media. Each process line consists of an extractor followed by a desolventizer toaster dryer and cooler (DTDC). There is one ethanol recovery system for the plant cosseting of flake desolventizing condensers and an absorber.

7.15.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Soy Protein Concentrate		
D.T. #1 Dryer 1	Soy Protein Concentrate Dryer	Cyclone
D.T. #1 Dryer 2	Soy Protein Concentrate Dryer	Cyclone
D.T. #1 Cooler	Soy Protein Concentrate Cooler	Cyclone
D.T. #2 Dryer 2	Soy Protein Concentrate Dryer	Cyclone
D.T. #2 Dryer 1	Soy Protein Concentrate Dryer	Cyclone
D.T. #2 Cooler	Soy Protein Concentrate Cooler	Cyclone

7.15.3 Applicability Provisions and Applicable Regulations

a. The "affected soy protein concentrate process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.15.1 and 7.15.2.

b. The affected soy protein concentrate process is subject to the emission limits identified in Condition 5.2.

c. The affected soy protein concentrate process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.15.4 Non-Applicability of Regulations of Concern

N/A

7.15.5 Operational and Production Limits and Work Practices

None

7.15.6 Emission Limitations

a. The affected soy protein concentrate process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.15.7 Testing Requirements

a. The affected soy protein concentrate process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.15.8 Monitoring Requirements

None

7.15.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected soy protein concentrate process to

demonstrate compliance with Conditions 5.5.1, 7.15.3 and 7.15.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected soy protein concentrate process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.15.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of AN/THE affected soy protein concentrate process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected soy protein concentrate process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.15.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.15.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.15.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.16 Receiving/Conveying

7.16.1 Description

Receiving/Conveying operations include the receipt of raw soybeans and corn germ for storage by rail and truck. There are three aspirated truck unloading stations, one aspirated rail unloading station and one aspirated rail/truck unloading station located at the ADM Decatur West facility. After the soybeans or corn germ are unloaded they are conveyed to elevator storage and/or immediate conveyance to the grain preparation area. Soybeans may be dried prior to storage during wet periods or peak supply months.

7.16.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Receiving/Conveying		
West Soybean Receiving	Grain Dump Pit	Dust Collector
East Soybean Receiving	Grain Dump Pit	Dust Collector
Rail/Truck Dump Pit	Rail/Truck Dump Pit (Soybeans)	Dust Collector
Truck and Rail Receiving	Corn Germ Receiving Pit	Baghouse
Elevator A	Elevator	Dust Collector
Elevator B	Elevator	Dust Collector
Elevator C	Elevator	3 Baghouses
East and West Aeroglide Dryers	Grain Dryers	Cyclones
Conveying to Processing (Soybeans)	Conveying into the soybean plant	Baghouse
Conveying to Processing (Corn Germ)	Conveying into the corn germ plant	Baghouse

7.16.3 Applicability Provisions and Applicable Regulations

a. The "affected receiving and conveying process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.16.1 and 7.16.2.

b. The affected receiving and conveying process is subject to the emission limits identified in Condition 5.2.

c. The affected receiving and conveying process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.16.4 Non-Applicability of Regulations of Concern

N/A

7.16.5 Operational and Production Limits and Work Practices

None

7.16.6 Emission Limitations

a. The affected receiving and conveying process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.16.7 Testing Requirements

a. The affected receiving and conveying process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.16.8 Monitoring Requirements

None

7.16.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected receiving and conveying process to demonstrate compliance with Conditions 5.5.1, 7.16.3 and 7.16.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected receiving and conveying process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.16.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected receiving and conveying process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected receiving and conveying process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.16.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.16.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.16.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.17 Soybean Processing

7.17.1 Description

The soybean processing area processes the soybean and separates the soybean meat from the soybean hull and the other scraps. The soybean meat is used in the extraction area, while the hulls are further processed and used in other products. Following initial screening and scrap separation the soybeans are conditioned in the fluidized bed steam dryer followed by the cracking and separation of the bean meat from the hull. The preparation process has aspiration systems and collectors designed to capture the hulls after they have been separated from the soybean meat. The bean meats are rolled into flakes prior to passing through the expander/cooler system. The expanded soybean flakes are then transferred into the extraction process. The hulls are further processed by rotexes, aspirators, toasters and grinders prior to being transferred into pelletizing and storage operations.

7.17.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Soybean Processing		
Hull Grinding	Hull Grinding	5th Floor Dust Collector
Dehulling	Primary and Secondary Dehulling Operations	Baghouse
Soybean Preheater	Preheating are Prepared for Oil Extraction Process	Cyclone
Fluid Bed Dryer	Soybean Conditioning	Baghouse
Flaking	Soybean Flaking	South Dust Collector
Soy Expander Cooler	Soybean Flake Expander and Cooler System	Cyclones 1 & 2

7.17.3 Applicability Provisions and Applicable Regulations

a. The "affected soybean processing area" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.17.1 and 7.17.2.

b. The affected soybean processing area is subject to the emission limits identified in Condition 5.2.

c. The affected soybean processing area is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.17.4 Non-Applicability of Regulations of Concern

N/A

7.17.5 Operational and Production Limits and Work Practices

None

7.17.6 Emission Limitations

a. The affected soybean processing area is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.17.7 Testing Requirements

a. The affected soybean processing area is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.17.8 Monitoring Requirements

None

7.17.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected soybean processing area to demonstrate compliance with Conditions 5.5.1, 7.17.3 and 7.17.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected soybean processing area is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.17.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected soybean processing area with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected soybean processing area is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.17.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.17.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.17.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.18 Soy and Cornmeal Preparation and Loadout

7.18.1 Description

In this area the main function consists of meal loadout activities. Corn germ meal is loaded out through the corn truck loadout station and soybean meal is loaded out through the two rail loadout stations. The soybean meal is blended with pelletized hulls to obtain the correct fiber mix prior to being conveyed to either the truck or rail loadout.

7.18.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Soy and Corn Meal Preparation and Loadout		
Meal Transfer and Storage	Meal Transfer and Storage	Baghouse
Soybean Meal Screening and Grinding	Meal Screening and Grinding	
Meal Loadout	Meal Loadout	Baghouse
Corn Meal Truck Loadout	Corn Meal Loadout	Baghouse

7.18.3 Applicability Provisions and Applicable Regulations

a. The "affected soy and cornmeal preparation and loadout process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.18.1 and 7.18.2.

b. The affected soy and cornmeal preparation and loadout process is subject to the emission limits identified in Condition 5.2.

c. The affected soy and cornmeal preparation and loadout process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.18.4 Non-Applicability of Regulations of Concern

N/A

7.18.5 Operational and Production Limits and Work Practices

None

7.18.6 Emission Limitations

a. The affected soy and cornmeal preparation and loadout process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.18.7 Testing Requirements

a. The affected soy and cornmeal preparation and loadout process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.18.8 Monitoring Requirements

None

7.18.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected soy and cornmeal preparation and loadout process to demonstrate compliance with Conditions 5.5.1, 7.18.3 and 7.18.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected soy and cornmeal preparation and loadout process is subject to the applicable recordkeeping requirements established in State Construction and

Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.18.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected soy and cornmeal preparation and loadout process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected soy and cornmeal preparation and loadout process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.18.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.18.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.18.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.19 Hull Pelletizing

7.19.1 Description

Soybean hulls are stored in this process area prior to being conveyed to the pelletizing mills and pellet coolers. The pelletized hulls are then conveyed to meal preparation and loadout process area.

7.19.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Hull Pelleting		
Pelletizers/ Coolers	Hull Pelletizing and Cooling Operations	Cyclones 1a through 1l

7.19.3 Applicability Provisions and Applicable Regulations

a. The "affected pelletizing and storage process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.19.1 and 7.19.2.

b. The affected pelletizing and storage process is subject to the emission limits identified in Condition 5.2.

c. The affected pelletizing and storage process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.19.4 Non-Applicability of Regulations of Concern

N/A

7.19.5 Operational and Production Limits and Work Practices

None

7.19.6 Emission Limitations

a. The affected pelletizing and storage process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.19.7 Testing Requirements

a. The affected pelletizing and storage process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.19.8 Monitoring Requirements

None

7.19.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected pelletizing and storage process to demonstrate compliance with Conditions 5.5.1, 7.19.3 and 7.19.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected pelletizing and storage process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.19.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected pelletizing and storage process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the

probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected pelletizing and storage process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.19.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.19.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.19.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.20 Soybean Extraction

7.20.1 Description

After the soybean meat is separated from the hulls and processed, soybean oil is extracted from the flakes in the extraction process. The soybean flakes from the soybean processing operations pass through the extraction system and then the DTDC unit. The desolventized soybean flakes are then transferred to soybean meal preparation and loadout.

7.20.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Soybean Extraction		
Conveying to Extractor	Conveying of Flakes to Extractor	None
Soybean Extractor	Soybean Flakes are Desolventized	Mineral Oil Scrubber
Soybean DTDC	Desolventizing Soybean Flakes	Cyclones A, B, C and D
Package Boiler	Production of Steam for use in process	None
Hexane Tanks		

7.20.3 Applicability Provisions and Applicable Regulations

a. The "affected soybean extraction process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.20.1 and 7.20.2.

b. The affected soybean extraction process is subject to the emission limits identified in Condition 5.2.

c. The affected soybean extraction process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.20.4 Non-Applicability of Regulations of Concern

N/A

7.20.5 Operational and Production Limits and Work Practices

None

7.20.6 Emission Limitations

a. The affected soybean extraction process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.20.7 Testing Requirements

a. The affected soybean extraction process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.20.8 Monitoring Requirements

None

7.20.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected soybean extraction process to demonstrate compliance with Conditions 5.5.1, 7.20.3 and 7.20.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected soybean extraction process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which

have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.20.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected soybean extraction process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected soybean extraction process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b.

7.20.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.20.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.20.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.21 Corn Germ Processing

7.21.1 Description

Corn germ processing involves sifting the corn germ after which it is sent to the conditioners and then to the expellers. The oil collected from the expellers is stored prior to being transferred to the oil refinery. The expelled corn germ passes through flakers and expanders prior to being conveyed to corn germ extraction.

7.21.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Corn Germ Processing		
Corn Germ Conditioning	Corn Germ Conditioning	Cyclone
Corn Germ Expellers	Corn Germ Expelling	Rotoclone
Expeller Discharge Conveyer	Corn Germ Conveying	Cyclone
Corn Germ Flaking	Corn Germ Flaking	Cyclone
Corn Germ Expanders	Corn Germ Expanding	Cyclone

7.21.3 Applicability Provisions and Applicable Regulations

a. The "affected corn germ process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.21.1 and 7.21.2.

b. The affected corn germ process is subject to the emission limits identified in Condition 5.2.

c. The affected corn germ process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.21.4 Non-Applicability of Regulations of Concern

N/A

7.21.5 Operational and Production Limits and Work Practices

None

7.21.6 Emission Limitations

a. The affected corn germ process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.21.7 Testing Requirements

a. The affected corn germ process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.21.8 Monitoring Requirements

None

7.21.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected corn germ process to demonstrate compliance with Conditions 5.5.1, 7.21.3 and 7.21.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected corn germ process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.21.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected corn germ process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected corn germ process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.21.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.21.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.21.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.22 Corn Germ Extraction

7.22.1 Description

After the corn is processed, corn oil is extracted from the flakes in the extraction process. The corn germ flakes from corn germ processing operations pass through the extraction system and then one of the DTDC units. The desolventized corn germ flakes are then transferred to corn germ meal preparation and loadout.

7.22.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Corn Germ Extraction		
Corn Germ Extractor	Corn Germ Flakes are Desolventized	Mineral Oil Scrubber
South DTDC	Corn Germ Flakes are Desolventized after Passing through the Desolventizer-toaster	Cyclone and Baghouse
West DTDC	Corn Germ Flakes are Desolventized after Passing through the Desolventizer-toaster	2 Baghouses
Hexane Tank		
Conveying and Conditioning	Transfer and Conditioning of Corn Germ	None
Expellers	Corn Germ Expelling	Cyclone
Oil Clarifying Centrifuges	Centrifuges	None
Corn Germ Flaking	Corn Germ Flaking	Cyclone
Corn Germ Aspiration	Corn Germ Expanding	Cyclone

7.22.3 Applicability Provisions and Applicable Regulations

a. The "affected corn germ extraction process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.22.1 and 7.22.2.

b. The affected corn germ extraction process is subject to the emission limits identified in Condition 5.2.

c. The affected corn germ extraction process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.22.4 Non-Applicability of Regulations of Concern

N/A

7.22.5 Operational and Production Limits and Work Practices

None

7.22.6 Emission Limitations

a. The affected corn germ extraction process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.22.7 Testing Requirements

a. The affected corn germ extraction process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.22.8 Monitoring Requirements

None

7.22.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected corn germ extraction process to demonstrate compliance with Conditions 5.5.1, 7.22.3 and 7.22.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected corn germ extraction process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.22.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected corn germ extraction process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected corn germ extraction process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.22.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.22.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.22.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.23 SSL Facility

7.23.1 Description

Veggie dry mix and harvest burgers are produced after combining a variety of seasonings and products from other process areas at the Decatur facility. The veggie dry mix and the harvest burgers and packaged on site prior to loadout. Sodium and calcium stearoyl lactylate are produced in the lactylate process. Stearic acid, lactic acid and caustic are mixed in the lactylate reactor prior to passing through the lactylate flakers. The flakes are stored prior to being conveyed to packaging and loadout.

7.23.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
SSL Facility		
Lactylate Reactor	Reactor	None
Lactylate Flaking	Lactylate Flaking	Scrubber
Condensate Tank	Condensate Tank	None
Flake Storage	Flake Storage	Bin Vent Filter
Classifier	Classifier and Packaging Machine	Baghouse
Harvest Burger/Veggie Dry Mix	Production of Harvest Burgers and Veggie Dry Mix	Baghouse
Hot Oil Heater	10 MBtu/Hr Hot Oil Heater	None

7.23.3 Applicability Provisions and Applicable Regulations

a. The "affected SSL facility" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.23.1 and 7.23.2.

b. The affected SSL facility is subject to the emission limits identified in Condition 5.2.

c. The affected SSL facility is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.23.4 Non-Applicability of Regulations of Concern

N/A

7.23.5 Operational and Production Limits and Work Practices

None

7.23.6 Emission Limitations

a. The affected SSL facility is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.23.7 Testing Requirements

a. The affected SSL facility is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.23.8 Monitoring Requirements

None

7.23.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected SSL facility to demonstrate compliance with Conditions 5.5.1, 7.23.3 and 7.23.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected SSL facility is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.23.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected SSL facility with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected SSL facility is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.23.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.23.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.23.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.24 Oil Refinery

7.24.1 Description

Crude oil is degummed and bleached. Other oils may be added and the mixture is then deodorized. The edible oils are then sent to storage and loadout. In addition oil from the corn dewax process may be hydrogenated and then sent with the other oils to the deodorizer. Hydrogen gas is also produced in this process area with the use of two natural gas-fired hydrogen reformers. This process involves the use of two natural gas-fired high-pressure steam boilers and three natural gas-fired Dowtherm boilers.

7.24.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Vegetable Oil Refining		
Hydrogen Plant Reformers B, A and C	Two Natural Gas-Fired Burners Rated at 21.0 MBtu/Hr and one at 33.0 MBtu/Hr	None
High Pressure Steam Boiler	Natural Gas-Fired Boiler Rated at 13.5 MBtu/Hr	None
Boilers B, C and D	Three Natural Gas-Fired Boilers Rated at 11.2, 11.2 and 8.57 MBtu/Hr	None
Nebraska Boiler	Natural Gas-Fired Boiler Rated at 15.0 MBtu/Hr	None
Package Boiler	Natural Gas-Fired Boiler Rated at 175 MBtu/Hr	None

7.24.3 Applicability Provisions and Applicable Regulations

a. The "affected oil refinery" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.24.1 and 7.24.2.

b. The affected oil refinery is subject to the emission limits identified in Condition 5.2.

c. The affected oil refinery is subject to regulations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.24.4 Non-Applicability of Regulations of Concern

N/A

7.24.5 Operational and Production Limits and Work Practices

None

7.24.6 Emission Limitations

a. The affected oil refinery is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.24.7 Testing Requirements

a. The affected oil refinery is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.24.8 Monitoring Requirements

None

7.24.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected oil refinery to demonstrate compliance with Conditions 5.5.1, 7.24.3 and 7.24.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected oil refinery is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.24.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected oil refinery with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected oil refinery is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.24.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.24.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.24.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.25 Packaged Oils

7.25.1 Description

Oil products from the refinery area are packaged and shipped from this location.

7.25.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Deoiled Lecithin		
Lecithin Deoiling/ Desolventizing	Use of Solvent to Remove Oil and then Desolventizing of Deoiled Leithin	Mineral Oil Scrubber
Solvent Side Fluid Bed Dryer	Dries Cooled Leithin	Baghouse
Grinding/ Screening	Grind and Screen Deoiled Leithin	Baghouse
Granulation Fluid Bed Dryer	Dries Granulized Deoiled Leithin	
Deoiled Leithin Packaging	Packaging of Deoiled Leithin	Baghouse
Dairy Feed		
Dairy Feed Fluid Bed Dryers	Corn meal, Soap Stock, Millfeed, Bentonite Clay and Soybean Dust are Pelletized	Cyclones 01a, 01b, 01c and 01d
Packaged Oils Plant		
Raw Material (Salt) Receiving	Salt is Unloaded into a Storage Tank	Receiving Fabric Filter

7.25.3 Applicability Provisions and Applicable Regulations

a. The "affected packaged oils process" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.25.1 and 7.25.2.

b. The affected packaged oils process is subject to the emission limits identified in Condition 5.2.

c. The affected packaged oils process is subject to regulations established in State Construction and Operating Permits, which have been attached hereto

and incorporated herein by reference (See Attachments 10.1).

7.25.4 Non-Applicability of Regulations of Concern

N/A

7.25.5 Operational and Production Limits and Work Practices

None

7.25.6 Emission Limitations

a. The affected packaged oils process is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.25.7 Testing Requirements

a. The affected packaged oils process is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.25.8 Monitoring Requirements

None

7.25.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items

for the affected packaged oils process to demonstrate compliance with Conditions 5.5.1, 7.25.3 and 7.25.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected packaged oils process is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.25.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected packaged oils process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected packaged oils process is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.25.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.25.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.25.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

7.26 Vitamin E

7.26.1 Description

The Vitamin E tank farm consists of four fixed roof methanol tanks and six fixed roof solvent (heptane) tanks. The solvent tanks and the purification and solvent recovery processes are vented to a mineral oil scrubber. Isopropyl alcohol (IPA) is added to the product after it is purified and the excess solvent is recovered. This product (succinate) is then sent through grinding and packaging processes which are controlled by a baghouse. Another product (sterols) is produced by prilling and packaging the mixture which leaves the distillation and stripping. The prilling and packaging processes are controlled by a baghouse.

7.26.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Vitamin E		
Methanol Storage Tanks 1 through 4	Methanol Storage Tanks	Mineral Oil and Water Scrubbers
Methyl Formcel Storage Tank	Methyl Formcel Storage Tank	
Heptane Storage Tanks 1 through 6	Heptane Storage Tanks	
Stripping and Distillation	Stripping and Distillation	
Purification and Solvent Recovery	Purification and Solvent Recovery	
Grinding and Packaging	Grinding and Packaging	
Prilling and Packaging	Prilling and Packaging	
Agglomerate Dryer	Dryer	

7.26.3 Applicability Provisions and Applicable Regulations

a. The "affected vitamin E plant" for the purpose of these unit-specific conditions, are the emission units described in Condition 7.26.1 and 7.26.2.

b. The affected vitamin E plant is subject to the emission limits identified in Condition 5.2.

c. The affected vitamin E plant is subject to regulations established in State Construction and

Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.26.4 Non-Applicability of Regulations of Concern

N/A

7.26.5 Operational and Production Limits and Work Practices

None

7.26.6 Emission Limitations

a. The affected vitamin E plant is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.26.7 Testing Requirements

a. The affected vitamin E plant is subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.26.8 Monitoring Requirements

None

7.26.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected vitamin E plant to demonstrate compliance with Conditions 5.5.1, 7.26.3 and 7.26.6, pursuant to Section 39.5(7)(b) of the Act:

a. The affected vitamin E plant is subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.26.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected vitamin E plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. The affected vitamin E plant is subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachments 10.1).

7.26.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.26.12 Compliance Procedures

a. Compliance shall be determined using the recordkeeping requirements in Condition 7.26.9 and the results of emission test(s), if any, on the affected process or a similar process. The emission test(s) shall be the most recent, valid and deemed acceptable to the Illinois EPA.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after January 21, 2004 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

ii. Identify the schedule for implementing the physical or operational change;

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control

equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated

equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

   i. At reasonable times, for the purposes of assuring permit compliance; or

   ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment

relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - State Construction and Operating Permits

ADM Decatur Corn Processing Permits

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in theses attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

ADM Corn Processing Plant
Attn: Mark Carroll
4660 Faries Parkway
Decatur, Illinois 62526

Application No.: 04040033 I.D. No.: 115015AAE
Applicant's Designation: Date Received: July 13, 2004
Subject: Corrosion Inhibitor Storage Tank
Date Issued: July 30, 2004
Location: 4660 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a corrosion inhibitor storage tank as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit - Tank
Control - None

1.1.1 Description

Corrosion inhibitor is stored in a fixed roof tank.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Tank	Storage Tank with a Nominal Capacity of 14,200 Gallons, Used to Store Products with a Vapor Pressure Less Than 2.5 psia.	None

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected tank" for the purpose of these unit-specific conditions is the tank described in Conditions 1.1.1 and 1.1.2.

b. The affected tank is an affected facility for purpose of the NSPS, 40 CFR 60 Subpart Kb and is subject to

certain recordkeeping requirements, in 40 CFR 60.116b.

1.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected tank not being subject to 35 IAC 215.121, because the affected tank has a capacity of less than 40,000 gallons and the material stored would have a vapor pressure of less than 2.5 psia.

b. The affected tank is not subject to the New Source Performance Standards (NSPS) for Standard of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60, Subpart Kb, because the affected tank would have a storage volume less than 75 cubic meters (approximately 19,868 gal).

c. This permit is issued based on the affected tank not being subject to the control requirements of 40 CFR 63 Subpart FFFF because it is located at an existing process unit and stores material whose maximum true vapor pressure of total HAP never exceeds 6.9 kilopascals, so that the tank qualifies as a Group 2 tank, as described at 60 CFR 63.2550.

1.1.5 Control Requirements

a. The vapor pressure of material stored in affected tank shall be less than 2.5 psia as stored, on a monthly average.

b. At all times, the Permittee shall maintain and operate the affected tank, in a manner consistent with good air pollution control practice for minimizing emissions.

1.1.6 Emission Limitations

This permit is issued based on negligible emissions of volatile organic material (VOM) from the affected tank. For this purpose, emissions shall not exceed 0.44 tons/year.

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

a. Pursuant to 40 CFR 60.116b(a) and (b), the Permittee shall keep records showing the dimension of the affected tank and analysis showing the capacity of the affected tank. This record shall be kept for the life of the tank.

b. The Permittee shall keep records of the maximum true vapor pressure of total HAP (kilopascals) and vapor pressure (psia) of each material stored in the affected tank, with supporting documentation.

1.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA, of any noncompliance of the affected tank with the permit requirements. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

b. Two copies of required reports and notifications concerning the affected tank shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

Telephone: 217/782-5811 Facsimile: 217/524-4710

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville Illinois 62234

Telephone: 618/346-5120 Facsimile: 618/346-5155

2.0 The Permittee is allowed to operate the affected tank under this construction permit until the CAAPP Permit is first reissued.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniel Midlands Corn Processing Plant
Attn: Mark Carroll
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 04020008
Applicant's Designation:
Subject: Baghouses
Date Issued: April 19, 2004
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: April 13, 2004

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of two baghouses for existing pneumatic conveying pipeline for gluten as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the baghouses in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on negligible emissions of particulate matter from the baghouses. For this purpose, combined emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

3. The Permittee may operate the baghouses under this construction permit until its CAAPP permit is issued.

This permit has been revised to allow an extra baghouse that will alternate flow, as required by maintenance.

If you have any questions on this permit, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Mark Carroll, Environmental Compliance Manager—Corn Processing Plant 180
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03090037 I.D. No.: 115015AAE
Applicant's Designation: DRYER #6 Date Received: September 17, 2003
Subject: Oxidizer System For Wet Corn Mill Feed Dryer #6
Date Issued: April 28, 2004
Location: 4666 Faries Parkway, Decatur

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a regenerative thermal oxidizer (RTO) system on the #6 feed dryer system, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.1 Description

Archer Daniels Midland (ADM) has requested a construction permit to install an oxidizer system (two oxidizer units in parallel) to further control emissions from a feed dryer (Dryer #6) in the wet corn mill (mill) at its Decatur manufacturing complex. The dryer produces cattle feed from ADM by-products and the material that remains after the starch, oil and gluten are removed from corn. In the future, emissions from the dryer would be controlled by a multi-stage control system, including cyclones, wet scrubbing, and the proposed regenerative thermal oxidizers (RTO). The new RTO is an emission reduction project required by a Consent Decree entered into by the Permittee with the United States and State of Illinois, in the United State District Court for the Central District of Illinois, United States, v. Archer Daniels Midland Company, Civil Action No. 03-2066. The new RTO would significantly reduce emissions of VOM and CO from Dryer #6. When the RTO's are installed, ADM intends to remove the existing packed tower scrubber from the dryer. The RTO's are designed for on-line bakeout.

1.2 List of Emission Units and Pollution Control Equipment

Process Unit	Control Equipment
Feed Dryer #6 (Existing)	New Regenerative Thermal Oxidizers (RTO) System (Design fuel input: 16 million BTU/hour total, natural gas)

1.3 Applicability Provisions and Applicable Regulations

a. The "affected dryer" for the purpose of these unit-specific conditions is feed dryer #6 upon installation of the oxidizers, as described in Conditions 1.1 and 1.2.

b. The affected dryer is subject to applicable provisions of the Consent Decree and the Control Technology Plan(CTP) associated with the Consent Decree. This plan establishes time frames for various emission reduction projects at the source, including oxidizers for Dryer #6.

c. The conditions of this permit take effect upon initial startup of the oxidizers.

1.4 Non-Applicability of Regulations of Concern

None

1.5 Operational and Production Limits and Work Practices

a. i. The affected dryer shall be equipped, operated, and maintained with low NO_x burners and only fire natural gas or biogas. The burners shall be operated and maintained in conformance with good air pollution control practices.

ii. The affected dryer shall be equipped, operated, and maintained with a multi-stage control system consisting of cyclones, wet scrubbing and thermal oxidizers. The control system shall be operated and maintained in conformance with good air pollution control practices.

b. i. Each oxidizer unit shall be operated with the combustion chamber at a temperature that shall be set based on emission testing.

ii. The scrubbing system shall be operated with pH, pressure drop and scrubbant flow rate maintained at levels established based on emission testing and an optimization evaluation for SO_2 removal.

c. The Permittee shall not remove the existing packed tower scrubber until emission testing has been performed for PM levels in the dryer exhaust following the venturi scrubber and results submitted to the Illinois EPA that show compliance with specifications from the RTO supplier for the particulate matter loading in the exhaust entering the RTO, by an adequate compliance margin.

Note: This provision addresses the physical removal of the packed tower from the plant. The dryer may be operated without the packed tower once the RTO is operational.

d. This permit does not authorize changes to dryer #6 or the mill that are unrelated to the addition of the oxidizers to the dryer that would increase the mill's capacity.

1.6 Emission Limitations

a. i. The oxidizer system shall be designed, constructed, and maintained to comply with the following limits for the affected dryer, as established by the Consent Decree.

A. At least 90 percent destruction of CO by mass, (comparing the CO in the inlet and outlet of the system) or a CO emission rate from the dryer that is no more than 100 ppm; and

B. At least 95 percent destruction of VOM by mass (comparing the VOM in the inlet and outlet of the system) or a VOM emission rate from the dryer that is no more than 10 ppm, as expressed as propane.

ii. The PM emission control system shall be designed, constructed, and maintained to achieve PM emission rate from the affected dryer that is no more than 0.010 gr/dscf. For this purpose, PM shall be determined as filterable particulate matter, as measured by USEPA Method 5 (See also Condition 1.8).

iii. The wet scrubbing system shall be designed, constructed, and maintained to comply with the following limits for the affected dryer:

A. At least 90 percent reduction of SO_2 by mass, (comparing the SO_2 in the inlet and outlet of the system) or an SO_2 emission rate from the dryer that is no more than 20 ppm.

Note: The limitations in Conditions 1.6(a)(i) and (iii) reflect limitations established in Paragraph 20 of the Consent Decree. All emissions limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollutions control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. These startup and shutdown periods shall not exceed the minimum amount of time necessary for

these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when process equipment is also shut down. Also, ADM shall to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions.

b. i. The control system for the affected dryer shall be designed to meet the following limits:

A. PM - 7.7 lb/hour and 33.8 tons/year.

B. NO_x, (including the contribution from the RTO burner) - 25.2 lb/hour and 110.4 tons/year.

C. SO_2 - 17.6 lb/hour and 77.2 tons/year.

D. CO - 38.6 lb/hour and 168.9 tons/year.

E. VOM - 6.3 lb/hour and 27.7 tons/year.

c. However, PM emission limits may be established based on actual test data as provided in Paragraphs 34, 36A and 36B of the Consent Decree and Section 10.0 of the Control Technology Plan.

d. This permit is issued based on the addition of the oxidizer system not constituting a major modification subject to 40 CFR 52.21, Prevention of Significant Deterioration, PSD. The system is being installed pursuant to a Consent Decree that addresses measures the Permittee must take to come into compliance with PSD, the potential NO_x emissions of the oxidizer system are not significant.

1.7 Good Operating Practices

The Permittee shall operate, maintain, and repair the affected dryer and its control system in a manner that is consistent with the following:

a. Operating Procedures for Control System: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation, including startup and shutdown. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

b. Operating Procedures for Burner: Written operating practices shall be developed and maintained, including establishment of

target levels for the following operating parameters for the low NO_x burner:

i. Furnace Temperature Operating Range.

ii. Combustion Air Fan Amperage.

iii. Recirculated Air Damper Position and Secondary Air.

c. Inspections: Visual inspections of the dryer and its air pollution control and monitoring equipment shall be conducted on at least a weekly basis.

d. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

e. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

i. Date of inspection, maintenance, and repair activities.

ii. Description of maintenance or repair activity if not routine preventative maintenance.

iii. Probable cause for requiring maintenance or repair if not routine or preventative.

These requirements and related monitoring, recordkeeping and reporting requirements in Conditions 1.9, 1.10 and 1.13 may be revised and relaxed by the Illinois EPA in the CAAPP Permit issued to the source.

1.8 Emission Testing Requirements

a. i. Within 180 days of startup of the affected dryer (i.e. Dryer #6 with oxidizer), the Permittee shall have PM, NO_x, SO_2, CO and VOM emissions and opacity from the dryer and the destruction efficiency of the oxidizer system for CO and VOM measured at its expense by an approved testing service, during full load operation of the dryer and other conditions representative of normal operation to verify compliance with the requirements of this permit. In addition, if the Permittee is relying on control efficiency for SO_2 as provided in Condition 1.6(a)(iii) the Permittee shall also measure SO_2 at an appropriate location in the ductwork prior to the SO_2 wet scrubbing system used for SO_2 control.

ii. Emission measurements shall also be conducted upon written request from the Illinois EPA. For this purpose, the Permittee need not conduct measurements prior to the control system for SO_2, VOM or CO as appropriate, unless it will be relying upon control efficiency to demonstrate compliance.

b. i. The following testing methods and procedures shall be used, as further specified in Section 9.0 of the Control Technology Plan. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM/PM10)	USEPA Method 5/202
Sulfur Dioxide (SO_2)	USEPA Method 6/6c
Opacity	USEPA Method 9
Carbon Monoxide (CO)	USEPA Method 10
Nitrogen Oxides (NO_x)	USEPA Method 7E
Volatile Organic Material (VOM)	USEPA Method 18 and 25 or 25A

ii. Due to the high moisture levels in the exhaust from the feed dryers, USEPA particulate matter$_{10}$ (PM_{10}) test methods are not considered reliable and are not being required to measure PM_{10}.

iii. A. The outlet compliance testing location shall be located prior to the stack at a point prior to the commingling of the #5 and #6 dryers exhaust streams but after the Dryer #6 oxidizer.

B. Subsequent permits issued by the Illinois EPA may establish provisions to allow measurements to be conducted in the stack, based on the combined emissions of the #5 and #6 dryers. In conjunction with the issuance of such a permit, separate measurements of the emissions of each dryer and the combined emissions of the dryers at the point of discharge maybe required, as needed to assure that downstream equipment does not add to the emissions as discharged to the atmosphere.

c. Outlet testing and control efficiency testing will be based on either Method 25 or Method 25A calibrated to propane, whichever is applicable depending on concentration (i.e., Method 25 shall be used on both

the inlet and outlet when the outlet total hydrocarbon concentration is > 50 ppm as carbon and Method 25A shall be used on both the inlet and outlet when the outlet THC concentration is < 50 ppm as carbon).

c. The Permittee shall submit a written test plan to the Illinois EPA for review and approval for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The specific points at which samples will be taken for a pollutant. (Note: For future measurements, if sampling will be conducted at the stack, or other point that includes the exhaust from other dryers, rather than after control units, the plan must also address the approach being taken for showing compliance, e.g., all dryers will comply with a PM limit of 0.010 gr/scf.)

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. These reports shall include as a minimum:

i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.

ii. A summary of results, e.g. PM, VOM, and CO emissions, lb/hour and gr/scf or ppmv.

iii. Detailed description of operating conditions of the dryer, including:

A. Process information, e.g. feed composition, operating rate, and moisture content.

B. Control system operating parameters during testing.

C. Solids content/ph of various scrubbant streams.

D. Temperature drop across the waste heat evaporator.

iv. Data and calculations.

v. Conclusions.

1.9 Monitoring

a. The Permittee shall install, maintain and operate continuous monitors on the burner(s) in dryer #6 for the following parameters:

i. Firing rate (cubic feet/hour of gas to the burner).

ii. Furnace temperature.

iii. Combustion air fan amperage.

b. The Permittee shall install, maintain and operate continuous monitors on each scrubber that supply continuous readings and store average hourly values for the following parameters:

i. Scrubbant flow rate (gallons/minute).

ii. Pressure drop, if a packed bed or Venturi scrubber.

iii. pH of scrubbant, if caustic or other reagent is added to the scrubbant for control of SO_2 emissions.

c. The Permittee shall install, maintain and operate continuous monitors on each oxidizer unit for the following parameters:

i. Pressure differential across the oxidizer.

ii. Combustion chamber temperature.

d. i. The Permittee shall either equip the oxidizer with device(s) to indicate flow to the oxidizer from the dryer or equip the emergency release for such streams, if any, with device(s) to indicate flow through the emergency

release, which device(s) shall record such information at least once every hour.

ii. All monitoring devices shall be installed, calibrated, and maintained according to the supplier's specifications and/or good industry standards and shall be operated at all times that Dryer #6 is in use.

1.10 Recordkeeping Requirements

a. The Permittee shall maintain the following operating records for the affected dryer. This data shall be recorded whenever a new measurement is taken or an item is changed, except as specified below:

i. Dryer throughput based on the firing rate (mmBtu/hr) and water evaporation rate as detailed in the application, recorded at least once per shift.

ii. Configuration of the control system, including bypass of any unit, significant changes in its usage of units, changes in water supply to units, or changes in reagent.

iii. Desired values of the operating parameters of the control system.

iv. Based on preliminary testing the facility shall determine and keep records of the optimum furnace temperature operating range.

v. Actual furnace operating temperature shall be monitored from the control room and recorded.

vi. Induced draft fan amperage.

vii. Recirculated air damper position.

b. The Permittee shall maintain records of the following operating parameters for the emission control units. These parameters for which there is continuous monitoring (See Condition 1.9) shall be manually recorded at least every two hours, if automatic measurement and recording device(s) are not in service for more than two hours. Other parameters shall be recorded at least every two hours.

i. For the low NO_x burner:

A. Firing rate based on percent valve opening and gas pressure.

B. Furnace temperature based on percent valve opening of gas pressure.

C. Volumetric flow rate of recirculated air and secondary air based on damper position.

ii. Gas valve position of the RTO burner.

d. The Permittee shall keep records of all emission measurements conducted for the affected dryer including:

i. Records of emission measurements conducted pursuant to Condition 1.9.

ii. Records of other measurements of emissions conducted as part of the evaluation of Dryer #6 and its control system.

e. The Permittee shall maintain records for any period during which the affected dryer was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

f. The Permittee shall keep emission records for the affected dryer as follows:

i. PM emission rate, in lb/hour, determined for each configuration and condition of the dryers and their control systems, based on test data or other engineering estimates with supporting explanations and calculations.

Until emission testing is conducted, this determination shall be based on design data.

ii. Number of hours operated at each emission rate identified above on a monthly basis, with explanation.

iii. Monthly emissions of PM, NO_x, CO, VOM, and SO_2, determined as the summation of the product of the above records.

iv. Annual emissions of PM, NO_x, CO, VOM, and SO_2.

1.11 Records Retained

a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request. For this purpose, the Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the sources normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

1.12 Notification

a. The Permittee shall notify the Illinois EPA within 5 days of the initial startup of the oxidizer for Dryer #6.

b. If there is an exceedance of the annual emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

1.13 Reporting

a. For the affected dryer, the Permittee shall submit quarterly compliance reports to the Illinois EPA. For any calendar quarter during which there are exceedances by the dryer, this report shall include information as specified in Condition 1.12(b). If there are no exceedances during the calendar quarter, the Permittee shall state that no excess emissions occurred during the reporting period. This report may be combined with other quarterly reports for units in the mill.

b. For VOM and CO emissions from the dryer, excess emissions are defined as any 3-hour block average in which the average combustion chamber temperature of the RTO when the dryer was operating, was more than 50°F below the temperature during testing that demonstrated compliance with applicable requirements.

1.14 Requirements

The Permittee may start up the dryer with the system bypass damper open (venting to atmosphere at a point in the ductwork between the Ducon scrubber and the venturi scrubber) as required to gradually increase airflow loading and prevent damage or excessive wear to oxidizer components, including the rotor. The system damper must be closed as soon as airflow to the oxidizer stabilizes, but in no case later than achieving 50 percent load on the dryer or longer than the time period(s) specified in the CAAPP permit for the source.

1.15 Illinois EPA Addresses

Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

A copy of all required reports and notifications, except the Annual Emission Report required by 35 IAC Part 254, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

1.16 Other Requirements

This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois State implementation Plan, as well as all other applicable local, state and federal requirements.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

217/782-2113

REVISED
CONSTRUCTION PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Company
Attn: Mark Carroll, Environmental Compliance Manager—Corn Processing Plant
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03020027 I.D. No.: 115015AAE
Applicant's Designation: DRYER #5 Date Received: May 11, 2004
Subject: Wet Corn Mill Feed Dryer #5
Date Issued: July 28, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a regenerative thermal oxidizer (RTO) on the #5 feed dryer system as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) and to operate the #5 feed dryer system with a control system that includes an RTO to construct the above referenced project, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a construction permit to install an oxidizer to further control emissions from feed dryer (Dryer #5) in the wet corn mill (mill) at its Decatur manufacturing complex. The dryer produces cattle feed from ADM by-products and the material that remains after the starch, oil and gluten are removed from corn. Emissions from the dryer would be controlled by a multi-stage control system, including cyclones, wet scrubbing, and the proposed

regenerative thermal oxidizer (RTO). The new RTO would significantly reduce emissions of VOM and CO from Dryer #5.

2. The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.

3. The project is subject to PSD review for particulate matter (PM_{10}), volatile organic material (VOM), and carbon monoxide (CO) because Dryer #5 has emitted significant amounts of PM, VOM, and CO, i.e., more than 15, 40, and 100 tons/year respectively, without the proposed RTO and ADM has not previously obtained a PSD permit for the dryer that addressed significant emissions of these pollutants. The permit would now limit annual PM, VOM, and CO emissions to 13.5, 27.7, and 67.6 tons respectively from Dryer #5. At these levels, the dryer would no longer be a significant source of emissions so that an analysis of air quality impacts is not required.

4. After reviewing the materials submitted by ADM, the Illinois EPA has determined that the project, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT).

5. The Illinois EPA has determined that the project, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and a summary of the Illinois EPA's review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

Standard Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

Best Available Control Technology

2a. i. Dryer #5 shall be equipped, operated, and maintained with a multi-stage control system consisting of cyclones, wet scrubbing and regenerative thermal oxidization (RTO). The control system

shall be operated and maintained in conformance with good air pollution control practices.

ii. The PM emission control system shall be designed, constructed, and maintained to achieve PM emission rate from Dryer #5 that is no more than 0.010 gr/dscf. For this purpose, PM shall be determined as filterable particulate matter, as measured by USEPA Method 5 (See also Condition 5).

b. The RTO system shall be designed, constructed, and maintained to comply with the following limits:

i. At least 90 percent destruction of CO by mass, (comparing the CO in the inlet and outlet of the system) or a CO emission rate from Dryer #5 that is no more than 100 ppm; and

ii. At least 95 percent destruction of VOM by mass (comparing the VOM in the inlet and outlet of the system) or a VOM emission rate from Dryer #5 that is no more than 10 ppm, as expressed as propane.

Condition 2 addresses Best Available Control Technology, for PM, CO and VOM emissions as required by Section 165 of the Clean Air Act. These requirements and the emission limits in Condition 3 take effect after initial shakedown of the RTO is completed, which period shall end 180 days after initial startup of the dryer with the RTO unless extended by the Illinois EPA.

3. Limitations

a. Dryer #5 shall be equipped, operated, and maintained with low NO_x natural gas or biogas-fired burner. The burners shall be operated and maintained in conformance with good air pollution control practices.

b. Emissions of PM, SO_2, CO, VOM and NO_x from Dryer #5 shall not exceed the following limits:

i. PM - 3.1 lb/hour and 13.5 tons/year.

ii. NO_x, (including the contribution from the RTO burner) - 8.0 lb/hour and 35 tons/year.

iii. SO_2 - 7.1 lb/hour and 30.9 tons/year.

iv. CO - 15.4 lb/hour and 67.6 tons/year.

v. VOM - 6.3 lb/hour and 27.7 tons/year.

c. This permit is issued based on Dryer #5 not being subject to PSD for SO_2 or NO_x because emissions of SO_2 and NO_x are less than the significant emission rate threshold.

d. This permit does not authorize changes to the mill that are unrelated to Dryer #5 that would increase the mill's capacity.

4. Good Operating Practices

The Permittee shall operate, maintain, and repair Dryer #5 and its control system in a manner that is consistent with the following:

a. Operating Procedures for Control System: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation, including startup and shutdown. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

b. Operating Procedures for Burner: Written operating practices shall be developed and maintained, including establishment of target levels for the following operating parameters for the low NO_x burner:

i. Furnace Temperature Operating Range.

ii. Combustion Air Fan Amperage.

iii. Recirculated Air Damper Position and Secondary Air.

c. Inspections: Visual inspections of Dryer #5 and its air pollution control and monitoring equipment shall be conducted on at least a weekly basis.

d. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

e. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

i. Date of inspection, maintenance, and repair activities.

ii. Description of maintenance or repair activity if not routine preventative maintenance.

iii. Probable cause for requiring maintenance or repair if not routine or preventative.

These requirements and related monitoring, recordkeeping and reporting requirements in Conditions 6, 7 and 9 may be revised and relaxed by the Illinois EPA in the CAAPP Permit issued to the source.

5. Emission Testing Requirements

a. i. Within 180 days of startup of the Dryer #5 RTO the Permittee shall have PM, NO_x, SO_2, CO and VOM emissions and opacity from Dryer #5 and the destruction efficiency of the RTO system for CO and VOM measured at its expense by an approved testing service, during full load operation of the dryer and conditions which are representative of maximum emissions to verify compliance with the requirements of this permit. In additions, if the Permittee is relying on destruction efficiency for CO or VOM, as provided in Condition 2(b)(i) or (ii) the Permittee shall also measure CO or VOM, as appropriate, at the inlet to the RTO.

ii. Emission measurements shall also be conducted upon written request from the Illinois EPA.

b. i. The following testing methods and procedures shall be used. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5*
Sulfur Dioxide (SO_2)	USEPA Method 6/6c
Opacity	USEPA Method 9
Carbon Monoxide (CO)	USEPA Method 10
Nitrogen Oxides (NO_x)	USEPA Method 7E
Volatile Organic Material (VOM)	USEPA Method 25A**

* Measurements shall also be taken and reported for the back half of the sampling train, to obtain additional measurements of condensable particulate matter.

** Outlet testing and control efficiency testing will be based on either Method 25 or Method 25A calibrated to propane, whichever is applicable depending on concentration (i.e., Method 25 shall be used on both the inlet and outlet when the outlet total hydrocarbon (THC) concentration is $\geq$ 50 ppm as carbon and Method 25A shall be used on both the inlet and

outlet when the outlet THC concentration is < 50 ppm as carbon).

ii. Due to the high moisture levels in the exhaust from the feed dryers, USEPA particulate matter$_{10}$ (PM_{10}) test methods are not considered reliable and are not being required to measure PM_{10}.

iii. The outlet compliance testing location may be located prior to the final stack due to the commingling of the #5 and #6 driers exhaust streams but must be located after the Dryer #5 RTO.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and approval for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The specific points at which samples will be taken for a pollutant if sampling will be conducted at the stack, or other point that includes the exhaust from other dryers, rather than after control units, and the approach being taken for showing compliance, e.g., all dryers will comply with a PM limit of 0.010 gr/scf.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. These reports shall include as a minimum:

i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.

ii. A summary of results, e.g. PM, VOM, and CO emissions, lb/hour and gr/scf or ppmv.

iii. Detailed description of operating conditions of the dryer, including:

A. Process information, e.g. feed composition, operating rate, and moisture content.

B. Control system operating parameters during testing.

C. Solids content/ph of various scrubbant streams.

D. Temperature drop across the waste heat evaporator.

iv. Data and calculations.

v. Conclusions.

6. Monitoring

a. The Permittee shall install, maintain and operate continuous monitors on the low NO_x burner(s) for the following parameters:

i. Firing rate (cubic feet/hour of gas to the burner).

ii. Furnace temperature.

iii. Combustion air fan amperage.

b. The Permittee shall install, maintain and operate continuous monitors on each scrubber that supply continuous readings and store average hourly values for the following parameters:

i. Scrubbant flow rate (gallons/minute).

ii. Pressure drop, if a packed bed or Venturi scrubber.

iii. PH of scrubbant, if caustic or other reagent is added to the scrubbant for control of SO_2 emissions.

c. The Permittee shall install, maintain and operate continuous monitors on the RTO for the following parameters:

i. Pressure differential across the RTO.

ii. Combustion chamber temperature.

d. i. The Permittee shall either equip the RTO with device(s) to indicate flow to the RTO from the dryer or equip the emergency release for such streams, if any, with device(s) to indicate flow through the emergency release, which device(s) which shall record such information at least once every hour.

ii. All monitoring devices shall be installed, calibrated, and maintained according to the supplier's specifications and/or good industry standards and shall be operated at all times that Dryer #5 is in use.

7. Recordkeeping

a. The Permittee shall maintain the following operating records for Dryer #5. This data shall be recorded whenever a new measurement is taken or an item is changed, except as specified below:

i. Dryer throughput based on the firing rate (mmBtu/hr) and water evaporation rate as detailed in the application, recorded at least once per shift.

ii. Configuration of the control system, including bypass of any unit, significant changes in its usage of units, changes in water supply to units, or changes in reagent.

iii. Desired values of the operating parameters of the control system.

iv. Based on preliminary testing the facility shall determine and keep records of the optimum furnace temperature operating range.

v. Actual furnace operating temperature shall be monitored from the control room and recorded.

vi. I.D. fan amperage.

vii. Recirculated air damper position.

b. The Permittee shall maintain records of the following operating parameters for the emission control units. These parameters for which there is continuous monitoring (See Condition 6a) shall be manually recorded at least every two hours, if automatic measurement and recording device(s) are not in service for more than two hours. Other parameters shall be recorded at least every two hours.

i. For the low NO_x burner:

A. Firing rate based on percent valve opening and gas pressure.

B. Furnace temperature based on percent valve opening of gas pressure.

C. Volumetric flow rate of recirculated air and secondary air based on damper position.

ii. Gas valve position of the RTO burner.

d. The Permittee shall keep records of all emission measurements conducted for Dryer #5 including:

i. Records of emission measurements conducted pursuant to Condition 6.

ii. Records of other measurements of emissions conducted as part of the evaluation of Dryer #5 and its control system.

e. The Permittee shall maintain records for any period during which Dryer #5 was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

f. The Permittee shall keep emission records for Dryer #5 as follows:

i. PM emission rate, in lb/hour, determined for each configuration and condition of the dryers and their control systems, based on test data or other engineering estimates with supporting explanations and calculations. Until emission testing is conducted, this determination shall be based on design data.

ii. Number of hours operated at each emission rate identified above on a monthly basis, with explanation.

iii. Monthly emissions of PM, NO_x, CO, VOM, and SO_2, determined as the summation of the product of the above records.

iv. Annual emissions of PM, NO_x, CO, VOM, and SO_2.

8. Records Retained

a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request. For this purpose, the Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source=s normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

9. Notification

a. The Permittee shall notify the Illinois EPA within 5 days of the initial startup of the Dryer #5 RTO.

b. If there is an exceedance of the annual emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

10. Reporting

a. For Dryer #5, the Permittee shall submit quarterly compliance reports to the Illinois EPA. For any calendar quarter during which there are exceedances by the dryer, this report shall include information as specified in Condition 9(b). If there are

no exceedances during the calendar quarter, the Permittee shall state that no excess emissions occurred during the reporting period. This report may be combined with other quarterly reports for units in the mill.

b. For VOM and CO emissions from the dryer, excess emissions are defined as any 3-hour block average in which the average combustion chamber temperature of the RTO when the dryer was operating, was more than 50°F below the temperature during testing that demonstrated compliance with applicable requirements.

11. Requirements

The Permittee may start up the dryer with the system bypass damper open (venting to atmosphere following the scrubbers) as required to gradually increase airflow loading and prevent damage or excessive wear to the RTO rotor and other RTO components. The system damper must be closed as soon as airflow to the RTO stabilizes, but in no case later than achieving 50 percent load on the dryer or longer than the time period(s) specified in the CAAPP permit for the source.

12. Illinois EPA Addresses

Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

A copy of all required reports and notifications, except the Annual Emission Report required by 35 IAC Part 254, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

13. Other Requirements

a. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois State implementation

Plan, as well as all other applicable local, state and federal requirements including requirements.

b. In particular, this permit does not address the requirements applying to the Permittee under the Consent Decrees entered into by the Permittee with the United States and State of Illinois, in the United State District Court for the Central District of Illinois, United States, v. Archer Daniels Midland Company, Civil Action No. 03-2066, and United States of America, People of the State of Illinois, v. Archer Daniels Midland Company, Defendant, Civil No. 00-2338.

This permit has been revised to improve accuracy of tracking dryer throughput by utilizing natural gas consumption and water evaporation rate.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62794-9276

Application No.: 89110058
Applicant's Designation: GRNDXPNSN
Subject: Corn Plant Expansion
Date Issued: September 16, 1996
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: November 20, 1989

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a corn plant expansion as described in the above-referenced application, including the emission units identified in Attachment 1. This Permit is subject to standard conditions for construction permits, attached hereto, and the following special conditions:

1a. Emissions of sulfur dioxide shall not exceed 2000 ppm from any emission source, pursuant to 35 Ill. Adm. Code 214.301.

b. Emissions of particulate matter shall not exceed applicable limits for new and modified emission sources pursuant to 35 Ill. Adm. Code 212.321 and 212.361, as applicable, except as provided below.

c. i. Operation of each of the following emission sources with emissions in excess of the applicable particulate matter limit may continue during malfunction and breakdown of the emission source or its associated control system, for such time as is necessary to prevent injury to persons or severe damage to equipment, as specifically allowed by 35 Ill. Adm. Code 201.262. (This authorization supersedes the prohibition against such continued operation in Standard Condition 9 for Operating Permits.)

Fiber feed dryers
Gluten meal dryers
Germ dryers

ii. Upon malfunction of a fiber dryer or gluten meal dryer that can be repaired within six hours, based on past experience with the type of event and availability of personnel and material, the

Permittee shall transfer load to other units as reasonably practicable but need not institute an orderly shutdown of the dryer, provided however that such orderly shutdown shall be initiated at such time it is determined that it will require more than six hours for the malfunction or breakdown to be repaired, i.e., to resume compliant operation.

iii. A. The Permittee shall implement preventative maintenance programs for the above emission sources to minimize the occurrence and severity of malfunctions and breakdowns.

B. The Permittee shall conduct a detailed evaluation of the occurrence of malfunctions and breakdowns on at least an annual basis to identify measures that could be taken to reduce the likelihood of malfunctions and breakdowns.

2a. Emissions of particulate matter (PM), sulfur dioxide (SO_2), nitrogen oxide (NO_x), and carbon monoxide (CO) shall not exceed the limits specified in Tables 1, 2, and 3, respectively. Compliance with these limits shall be determined by testing, monitoring and record keeping, as required by the conditions of this permit.

b. i. As addressed by Tables 1 and 2, fiber feed dryers controlled by packed tower scrubbers, as follows, may operate without such scrubbers during scheduled routine preventative maintenance, periodic detailed inspection/overhaul of scrubbers, and malfunction/breakdown and emergency repairs to scrubbers or other portions of the control system provided that the total duration of such outage shall not exceed 600 hours per year for each such scrubber <u>and</u> only one scrubber shall be out of service at any time. For this purpose, it shall be considered an outage if any dryer served by the scrubber is in operation

Packed tower scrubber 1 - OES 101 and 101A
Packed tower scrubber 2 - OES 101B and C
Packed tower scrubber 3 - OES 101D and E

ii. During such periods, the total emissions of particulate matter and sulfur dioxide from the affected dryers shall not exceed the hourly emission limits in Table 1 and 2 separately identified for each packed tower scrubber stack.

iii. A. The Permittee shall take reasonable measures to reduce the frequency and duration of such outages of packed tower scrubbers, while maximizing effectiveness of the packed tower scrubbers when they are in service.

B. The Permittee shall schedule any such outages that are planned to reasonably minimize the operating level of the dryers served by the scrubber.

c. i. As addressed by Table 1 and 2, the germ dryers, sulfur burners, and millhouse emission units controlled by scrubbers may operate without such scrubber during scheduled routine preventative maintenance, periodic detailed inspection/overhaul of scrubbers, and malfunction/breakdown and emergency repairs to scrubbers or other parts of the control system provided that the total duration of such outage shall not exceed 200 hours per year for each such scrubber.

ii. During such periods, the total emissions of particulate matter and sulfur dioxide from the affected emission units shall not exceed the hourly emission limits in Table 1 and 2.

iii. The Permittee shall take reasonable measures to reduce the frequency and duration of such outages of scrubbers, while maximizing effectiveness of the scrubbers when they are in service.

d. Compliance with annual limits on operating hours shall be determined by a running total of 12 months of data.

3a. Natural gas shall be the only fuel fired in the fiber feed dryers and the gluten dryers.

b. The fiber feed dryers and gluten dryers shall not fire more than 840 mmBtu/hr, as documented by records of fuel usage.

4a. The Permittee shall install and maintain in good condition pavement for all normal traffic areas at the source at which the corn plant is located (East Plant), as currently identified in Attachment 2.

b. The Permittee shall either through its own employees or by contract, sweep the following areas to achieve a nominal particulate matter control efficiency of 90%. Achievement of the required level of control shall be assumed if the areas are vacuum swept at least twice per week, with a sweeper that passes its exhaust through a filter, except for those areas and times when areas are physically obstructed by accumulations of snow or ice, storage materials, or construction activity or emissions are controlled by precipitation.

i. All paved normal traffic areas within the Permittee's East Complex at which the corn plant is located (See Attachment 2);

ii. Faries Parkway from the track at Gate No. 3, west through the intersection of Faries Parkway and Brush College Road, to Samuels Street, and south on Samuels Street to the northwest entrance of the Permittee's West Plant (Soybean Processing).

c. The Permittee shall maintain records of sweeping activity, that include:

i. For sweeping:

A. Identification of sweeper

B. Date

C. Operating personnel

D. Start time and end time

E. Area swept

F. Observations, if any;

ii. For each week a decision is made not to sweep due to precipitation or accumulations of snow or ice:

A. Date

B. Individual responsible for decision

C. Conditions

D. Areas affected, if less than all areas.

d. The Permittee shall review the above records on at least a monthly basis to determine the overall effectiveness of the sweeping program and identify any periods when the requirements of paragraph (b) were not met.

5a. The new or modified units or operations and other existing equipment as addressed by this permit may be operated for a period of 240 days pursuant to this Construction Permit.

b. The Agency may extend this period upon written request from the Permittee e.g., if more than 240 days of operation is required for initial startup and shakedown of equipment.

c. Any new emission units shall not begin operation until construction, including construction of any air pollution control equipment is complete, and reasonable measures short of actual operation have been taken to verify proper operation.

d. The Permittee shall notify the Agency in writing within 10 days of commencing operation under this permit.

6a. Emissions shall be measured as follows, by an approved testing service during conditions that are representative of maximum operation and emissions:

i. Testing of emission units and control equipment shall be conducted in accordance with the schedule in Table 4.

ii. Testing of any emission unit shall be conducted within 60 days of a written request from the Agency.

iii. The Agency may extend the period within which testing shall be performed for up to a year, based on a written request from the Permittee showing that the testing would not be representative of normal operation of unit, e.g., the unit would be operating significantly below normal rate, the rate is still increasing significantly, or it is impractical to perform testing more rapidly, e.g., qualified testing services are already committed to other tests.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency:

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Particulate Matter	USEPA Method 5
PM10	USEPA Method 201
Sulfur Dioxide	USEPA Method 6
Nitrogen Oxides	USEPA Method 7
Carbon Monoxide	USEPA Method 10

c. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Agency for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed; including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

d. The Agency shall be notified in writing a minimum of 15 days prior to the expected date of these tests and further notified a minimum of 5 working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

e. Three copies of the Final Test Report for each of these tests shall be submitted to the Agency, within 50 days after completion of sampling and shall include as a minimum:

i. General information, that is, date of test, testing personnel and observers,

ii. A summary of results

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule

iv. Detailed description of test conditions, including

A. Process information, i.e., mode(s) of operation, and process rates, e.g. fuel and raw material consumption

B. Control equipment information, i.e., equipment condition and operating parameters during testing; and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

7a. Monitoring systems shall be installed, operated, calibrated and maintained for the scrubbers on the dryer systems to verify proper operation of the scrubber, pursuant to 35 Ill. Adm. Code 201.281. The monitoring shall include the temperature and flow rate of the scrubbant fluid.

b. Monitors shall be installed, operated and maintained for the damper position (open or closed) of any emergency exhausts of the wet mill drying area to allow compliance with Condition 2 to be determined.

c. The Permittee shall maintain logs for the operation of these monitoring systems. These logs shall include information such as calibration checks, adjustments, maintenance activities, and repair activities, and indicate all periods when a monitor was not in service.

8a. The Permittee shall operate, maintain, and repair all air pollution control equipment in a manner that assures that the emission limits set in this permit are met at all times. The actions taken by the Permittee to meet this requirement shall include at least the following:

i. Written operating procedures shall be maintained and updated describing normal process and equipment operating parameters; monitoring or instrumentation for measuring control equipment operating parameters, if any; and control equipment inspection

and maintenance practices. With respect to control equipment maintenance practices, the operating procedures may incorporate the manufacturers' recommended operating instructions, if a copy of these instructions is attached to the procedures.

ii. Visual inspections of air pollution control equipment shall be conducted on a regular schedule. Detailed inspections of control equipment shall be made at least once per year.

iii. Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations.

iv. Records of inspection, maintenance and repair activities shall be kept in accordance with Condition 9.

b. The written operating procedures required by paragraph (a)(i) and the written records required by paragraph (a)(iv) need not be developed until the initial start up of an item of air pollution control equipment.

c. This condition establishes compliance procedures to assure proper operation of control equipment as it is used to comply with limits on particulate matter and sulfur dioxide. These procedures make the limits set in this permit enforceable as a practical matter, and the implementation of these procedures may be used to determine compliance with limits.

9a. The Permittee shall maintain records of the following items. These records may include normal production and operating records:

i. The input of corn to the wet mill (bushels corn/day) to show grind rate;

ii. Operation of the fiber feed dryers, including:

A. Configuration of dryers (identification of operating dryers; dryers processing steep water; and distribution of load among dryers, if not uniform), daily

B. Hours of downtime for each dryer, daily.

C. Feed rate, e.g., corn grind rate, steep water flow rate, and germ addition rate, daily.

iii. Fuel usage for the fiber feed dryers and the gluten dryers on a monthly and annual basis;

b. The Permittee shall maintain records to demonstrate proper operation of control equipment, including:

i. For the control system for fiber feed dryers:

A. Monitoring data, pursuant to Condition 7;

B. Scrubbant quality, e.g., pH and % total solids, at least once per day; and

C. Pressure drop, at least once per shift for each scrubber;

ii. For other control systems, appropriate records to demonstrate proper operation of control equipment, including operating data on scrubbant flow rate and quality, e.g. pH or percent solids;

iii. For all control systems, records pursuant to Condition 8, for inspections, preventative maintenance, maintenance activities other than preventative maintenance, and repair of air pollution control equipment which include date, duration, nature, and description of observation or action sufficient to demonstrate proper operation of emission sources and control equipment;

c. The Permittee shall record any period during which any emission source was in operation when its air pollution control equipment was not in operation or was not operating properly, based upon the above records.

i. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, and for incidents when control equipment failed to operate properly shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent reoccurrence.

ii. These records shall also identify any such period during which an emission source violated applicable emission limits, including the requirements of this permit, based upon the above records. This record shall include the cause for noncompliance, if known; the corrective action taken; and steps taken to prevent reoccurrence, if any.

d. The Permittee shall keep records of its periodic review of the sweeping program, pursuant to Condition 4(d).

10a. All records required by this permit shall be retained at the source for three years, and be available for inspection by the Agency. Any records that do not contain trade secrets shall be copied for the Agency upon request. Upon written request by the Agency, the Permittee shall submit a copy of any records, including records containing trade secrets, within 15 working days from the date of the Agency request.

b. Records may be kept in a computerized data system provided requested information can be retrieved at the source during its normal working hours.

11. The Permittee shall immediately notify the Agency by telephone of continued operation of an emission source during malfunction or breakdown as authorized by Condition 1(c) and thereafter shall comply with all reasonable directives of the Agency with respect to such incident.

12a. The Permittee shall provide a written report to the Agency within thirty days for each incident of continued operation during malfunction and breakdown as authorized by Condition 1(c), which report shall include the following information.

i. date and duration of malfunction or breakdown,

ii. full and detailed explanation of the cause,

iii. an estimate of quantity of particulate matter and/or sulfur dioxide emitted,

iv. measures taken to minimize the amount of emissions during the malfunction or breakdown.

b. With the Annual Emission Report required by 35 Ill. Adm. Code Part 254, the Permittee shall also provide:

i. A status report on the progress of Grind Expansion

ii. A summary of operation of fiber feed dryers without the associated packed tower scrubber, as addressed by Condition 2(b), including the total hours each packed tower scrubber was bypassed.

iii. A summary of operation of the germ dryers, millhouse emission sources, and sulfur burner without the associated scrubber, as addressed by Condition 2(c), including the total hours each scrubber was bypassed.

iv. A summary of the records required by Condition 9(a)(i), 9(c)(ii), and 9(d).

v. Supporting activity data and calculations for the annual emissions data reported for particulate matter, sulfur dioxide and nitrogen oxide.

vi. A summary of the evaluations performed pursuant to Condition 1(c)(iii)(B), and the measures, with schedule, that are being implemented.

13a. Any required reports and notifications concerning equipment operation, emissions testing or a monitoring system shall be sent to the Agency at the following address unless otherwise indicated:

Illinois Environmental Protection Agency (39-CASMS)
Division of Air Pollution Control, Compliance Unit
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code 254 and Final Test Reports required by Condition 6(e) shall also be sent to the Agency at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120 Fax: 618/346-5155

14. As a consequence of the above conditions, this permit is issued based upon the construction and operation of the expansion covered by this permit not constituting a major modification subject to 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

a. There have been and will be accompanying decreases in emissions of particulate matter such that the net change in emissions is less than significant, i.e., less than 15 tons/year increase. Specifically, accompanying this project, the Permittee will reduce emissions of particulate matter from roadways at the source as addressed by Condition 4(a) and 4(b)(i), such that there is not a significant increase in particulate matter emissions. The net change is estimated at 83.0 tons/year decrease, as addressed by Tables 1a, 1b, 1c and 1d. In addition, the Permittee will be further reducing particulate matter emissions by sweeping portions of Faries Parkway and Samuel Street that connect the Permittee's operations, with an estimated decrease of 92.7 tons/year.

b. There have been and will be accompanying decreases in emissions of sulfur dioxide such that the net change in emissions is less than significant, i.e., less than 40.0 tons/year increase. Specifically, accompanying this project, the Permittee will reduce emissions from existing equipment by adding caustic to the scrubbant in existing scrubbers, connecting the sulfur burner exhaust to the mill house scrubber, and then connecting the mill house exhaust to a germ dryer scrubber, as further described in the application. As a result, there is not a significant

increase in sulfur dioxide emissions. The net change is estimated at 244 tons/year decrease, as summarized in Table 2b.

c. The increase in nitrogen dioxide emissions accompanying the expansion is less than significant, i.e., less than 40 tons/year. The potential increase in emissions is estimated to be 39.4 ton/year of nitrogen oxide as summarized in Table 3a.

d. The increase in carbon monoxide emissions is not significant, as the increase is less than 100 tons per year.

15. The Permittee shall evaluate in accordance with a written plan reviewed in advance by the Agency, the configuration and operating parameters of the feed dryers and their control system as related to odors. An initial evaluation shall be completed by July 1, 1997.

16. This permit becomes effective upon dismissal of permit appeal PCB 92-109 by the Pollution Control Board.

If you have any questions on this permit, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:CR:drk

cc: Region 3

Attachment 1

Significant Emission Units Addressed by the Permit

MILL HOUSE

Corn Milling

1. 1st and 2nd grind

2. 3rd grind

3. MST Feeds

4. Fiber Sets

5. Gluten Filters

Units 1-4 are controlled by scrubbers, along with germ drying

Refinery

6. Refinery mechanical evaporators No. 1-14

Alcohol

7. Alcohol mechanical evaporators No. 1-6

FEED HOUSE

1. Fiber feed dryers (6) with cyclones, primary scrubbers, waste heat evaporators and secondary scrubbers (OES "101")

2. Gluten meal dryers (2) with cyclones, scrubber and waste heat evaporator (OES "102")

3. Fluid bed germ dryers (2) and rotary steam tube germ dryers (4), all with cyclones and scrubbers (OES "103")

4. Feed pellet mills (10) and pellet coolers (5) with cyclones (OES "114")

5. Fiber feed grinders (7) with baghouse (OES "108")

6. Gluten meal hammermills (2) with baghouse (OES "124")

7. Pellet transfer with baghouse (OES "109")

8. Pellet loadout with baghouse (OES "109B")

9. Germ meal receiving with baghouse (OES "130")

OTHER

1. Sulfur burners (2) with scrubber (OES "122")

2. Filter aid storage (OES "118")

TABLE 1

Limits for Particulate Matter Emissions

OES Designation	Emission Unit	Monthly Hours	Annual Hours	Particulate Matter Emissions lb/hr	Particulate Matter Emissions tons/yr
101, 101A, B, C, D & E	Fiber Feed Drying	744	8760	51.0	223.4
	Packed tower scrubber 1 and 2[1]	-	600 each	67.2	21.7
	Packed tower scrubber 3[2]	-	600	66.7	14.0
102, 102C	Gluten Meal Drying	744	8760	11.0	48.2
103, 103A, B, C, D & E	Germ Drying	744	8760	4.0	17.5
	North Scrubber[3]	-	200	6.0	0.4
	South Scrubber[3]	-	200	6.0	0.4
"114"	Pellet Milling/Cooling	744	8760	8.8	38.5[4]
124A, B	Gluten Meal Grinding and Transfer	744	8760	1.5	6.6[4]
107B	Gluten Meal Recycle Conveying	744	8760	0.45	2.0[4]
108B	Feed Grinding & Transfer	744	8760	4.3	18.8[4]
100	Clean Corn Storage	744	8760	0.48	2.1[4]
109/173A	Pellet Transfer	744	8760	4.3	18.8[4]
109B	Pellet Loadout	744	8760	3.0	13.1[4]
130	Germ Meal Receiving	744	8760	3.36	14.7[4]
118	Filter Aid Storage	744	8760	0.91	4.0[4]
120	Gluten Meal Storage	744	8760	0.43	1.9[4]
				Total	446.1

Notes

[1] Limits applicable to bypass of Packed Tower Scrubber 1 or 2 as authorized by Condition 2(b). During such periods, the affected dryers are allowed to emit an additional 36.2 lb/hour or a total of 67.2 lb/hour (36.2 lb/hour plus 31.0 lb/hour, the affected dryers share of the combined limit above for "normal operation" of 51.0 lb/hour). The additional 36.2 lb/hour for up to 1,200 hours (600 hours for each scrubber) contributes an additional 21.7 tons of annual emissions.

[2] Limits applicable to bypass of Packed Tower Scrubber 3 as authorized by Condition 2(b). During such periods, the affected dryers are allowed to emit an additional 46.7 lb/hour or a total of 66.7 lb/hour (46.7 lb/hour plus 20.0 lb/hour, the affected dryers share of the combined limit above of 51.0 lb/hour). The additional 46.7 lb/hour for 600 hours contributes an additional 14.2 tons of annual emissions.

[3] Limits applicable to bypass of North Scrubber or South Scrubber authorized by Condition 2(c). During such periods the affected dryers are allowed to emit an additional 4.0 lb/hour or a total of 6.0 lb/hour. The additional 4.0 lb/hour for up to 200 hours contributes an additional 0.4 tons of annual emissions.

[4] Measured as PM_{10}.

DES:DMH:CR:drk

TABLE 1a

Particulate Matter Emission Increases (ton/year) from Corn Plant Expansion

OES Designation	Emission Unit	Current*	Future Potential	Change	Description of Change
101	Fiber Feed Drying	37.7	259.1	221.4	Additional throughput
102	Gluten Meal Drying	34.2	48.2	14.0	Additional throughput
103	Germ Drying	17.5	18.3	0.8	Additional throughput/scrubber installed
114	Pellet Milling/Cooling	8.5	38.5	30.0	Additional throughput
			Total	266.2	

* Lesser of current actual emissions or allowable emissions.

DES:DMH:CR:drk

Table 1b

Listing of Contemporaneous Projects

Permit No.	Date	Description	Particulate Matter Emissions (ton/year)
88010014	03/88	Protein Concentrate	1.10
88010048	04/88	Wet Corn Mill	7.48
88120063	03/89	Industrial Soy Protein	6.75
89010004	03/89	Flour Grinding	1.80
89010071	06/89	Protein Isolate Expansion	12.61
89100035	01/90	Protein Concentrate	6.00
89100036	01/90	Industrial Soy Protein	7.16
89100034	01/90	Protein Isolate	12.34
89010004	09/89	Flour Grinding	3.70
90040058	04/90	Carbon Furnace 3	5.50
90110017	01/91	Flour Grinding	.35
92060061	09/92	Truck Dump No. 5	11.30
90110017	02/94	Flour Grinding-Annex III	4.85
93120100	02/94	Germ Meal Receiving	14.70
94010002	03/94	Germ Drying Improvements	-0-
94060041	08/94	Cooling Hull Pelletizing	1.20
95010056	03/95	Gluten Grinder	6.60
95050189	07/95	Protein Isolate III	13.31
95050006	07/95	Replacement Desolventizer/Dryer/Cooler	23.00
		Total	139.8

DES:DMH:CR:drk

Table 1c

Summary of Particulate Matter Reduction from Street Sweeping		Tons/Year
I. Interior Plant Roads		
Heavy Duty Vehicle from Oil & Chip to Paved		400.0
All Traffic Swept		89.0
	Subtotal	489.0
II. Faries Parkway E. of Brush College Road (Reduction from Sweeping Only)		36.0
Faries Parkway W. of Brush College Road (Reduction from Sweeping Only)		56.7
	Subtotal	92.7
	Total	581.7

DES:DMH:CR:drk

Table 1d

Net Change in Particulate Matter Emissions

Activity	Particulate Matter Emissions (ton/year)
Corn Plant Expansion (Table 1a)	266.2
Contemporaneous Projects (Table 1b)	139.8
Reduction from Street Sweeping - Plant Roads (Table 1c)	-489.0
Net Change	- 83.0

DES:DMH:CR:drk

TABLE 2

Limits for Sulfur Dioxide Emissions

OES Designation	Emission Unit	Monthly Hours	Annual Hours	Sulfur Dioxide Emissions lb/hr	Sulfur Dioxide Emissions tons/yr
101	Fiber Feed Drying	744	8760	35.4	155.0
	Packed tower scrubber 1 and 2[1]	-	600 each	60.0	24.0
	Packed tower scrubber 3[2]	-	600	90.0	22.5
102	Gluten Meal Drying	744	8760	20.0	87.6
103	Germ Drying - North scrubber	744	8760	30.0	131.4
	- North Bypass[3]	-	200	120.0	9.0
	- South scrubber	744	8760	30.0	131.4
	- South Bypass[4]	-	200	120.0	9.0
	Millhouse - Normal bldg. exhaust	744	8760	8.31	36.4
	- Scrubber Bypass[5]	-	200	58.3	5.0
	Alcohol Mechanical Evaporators	744	8760	4.20	18.4
	Refinery Mechanical Evaporators	744	8760	42.0	184.0
122	Sulfur Burners[6]	-	200	4.84	0.5
				Total	814.2

Notes

[1] Limits applicable to bypass of Packed Tower Scrubber 1 or 2 as authorized by Condition 2(b). During such periods, the affected dryers are allowed to emit an additional 40.0 lb/hour or a total of 60.0 lb/hour (40.0 lb/hour plus 20.0 lb/hour, the affected dryers share of the combined limit above for "normal operation" of 35.4 lb/hour). The additional 40.0 lb/hour for up to 600 hours each (1,200 hours total) contributes an additional 24.0 tons to annual emissions.

[2] Limits applicable to bypass of Packed Tower Scrubber 3 as authorized by Condition 2(b). During such periods, the affected dryers are allowed to emit an additional 75.0 lb/hour or a total of 90.0 lb/hour (75.0 lb/hour plus 15.0). The additional 75.0 lb/hour for up to 600 hours contributes an additional 22.5 tons to annual emissions.

[3] Limits applicable to bypass of North Scrubber (which controls the #1, #3 and #4 steam tube germ dryer and the #2 fluid bed germ dryer) as authorized by Condition 2(c). During such periods the affected dryers are allowed to emit an additional 90.0 lb/hour or a total of 120.0 lb/hour. The

additional 90.0 lb/hour for up to 200 hours contributes an additional 9.0 tons to annual emissions.

[4] Limits applicable to bypass of South Scrubber (which controls the #2 steam tube germ dryer and the #1 fluid bed germ dryer and also serves as secondary control to the Millhouse Scrubber) as authorized by Condition 2(c). During such periods, the affected emission sources are allowed to emit an additional 90.0 lb/hour or a total of 120.0 lb/hour. The additional 90.0 lb/hour for up to 200 hours contributes an additional 9.0 tons to annual emissions.

[5] Limits applicable to Millhouse during bypass of Scrubber, as authorized by Condition 2(c). During such periods, the affected emission sources are allowed to emit an additional 50.0 lb/hour, or a total of 58.3 lb/hour. The additional 50.0 lb/hour for up to 200 hours contributes an additional 5.0 tons to annual emissions.

[6] Limits applicable to Sulfur Burners during bypass of the Millhouse Scrubber, as authorized by Condition 2(d). During such periods, the sulfur burners are allowed to emit 4.84 lb/hour for up to 200 hours, for annual emissions of 0.5 ton.

DES:DMH:CR:drk

TABLE 2a

Change in Sulfur Dioxide Emissions (ton/year)

OES Designation	Emission Unit	Current Emissions	Future Potential Emissions	Net Changes	Description of Change
101	Fiber Feed Drying	277.3	201.5	- 75.8	Caustic added to scrubbant
102	Gluten Meal Drying	205.9	87.6	- 118.3	" " " "
103	Germ Drying & Mill	473.1	280.8	- 192.3	Additional throughput/scrubber
	Millhouse	26.3	41.4	+ 15.1	Additional throughput/scrubber
	Alcohol Mechanical Evaporators	13.1	18.4	+ 5.3	Additional throughput
	Refinery Mechanical Evaporators	52.6	184.0	+ 131.4	" "
122	Sulfur Burner	10.1	0.5	- 9.6	Additional control, through Millhouse South Germ Scrubber
			Decrease	244.2	

DES:DMH:CR:drk

TABLE 3

Limits for Nitrogen Oxide (NO_x) and Carbon Monoxide (CO) Emissions

OES Designation	Emission Unit	Monthly Hours	Annual Hours	NO_x Emissions lb/hr	NO_x Emissions tons/yr	CO Emissions lb/hr	CO Emissions tons/yr
"101"	Fiber Feed Drying	744	8760	39.5	173.0	66.2	290.0
"102"	Gluten Meal Drying	744	8760	7.5	32.9	18.0	78.8
				Total	205.9		368

DES:DMH:CR:drk

TABLE 3a

Net Change in Nitrogen Oxide and Carbon Monoxide Emissions (ton/year)

OES Designation	Emissions Unit	NO_x Current Emissions	NO_x Future Potential	NO_x Net Change	CO Current Emissions	CO Future Potential	CO Net Change
"101"	Fiber Feed Drying	142.8	173.0	30.2	212.0	290.0	78.0
"102"	Gluten Meal Drying	23.7	32.9	9.2	58.0	78.8	20.8
			225.9	39.4		360.8	98.8

DES:DMH:CR:drk

Table 4

Requirements for Emission Testing

Emission Unit	PM	SO_2	NO_x	Date
Fiber Feed Drying OES "101"*	X	X	X	4/1/97
Gluten Meal Drying OES "102"	X	X		4/1/97
Germ Drying OES "103"	X	X		4/15/97
Pellet Coolers OES "114"	X			4/15/97
Alcohol Mechanical Evaporators**		X		5/1/97
Refinery Mechanical Evaporators**		X		5/1/97

* Emissions testing shall be conducted simultaneously for both stacks

** Emissions testing shall be conducted on a representative unit, as selected by the Agency.

DES:DMH:CR:drk

217/782-2113

REVISED
JOINT CONSTRUCTION AND OPERATING PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL
NSPS SOURCE

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.:00090052 I.D. No.: 115015AAE
Applicant's Designation: ALCOHOL PSD Date Received: June 7, 2004
Subject: Ethyl Alcohol Production
Date Issued: July 28, 2004 Expiration Date: March 28, 2008
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of an expansion of the alcohol production plant with installation of additional air pollution control equipment and the equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct and operate the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a joint construction and operating permit for the Alcohol Plant (Plant) at its Decatur manufacturing complex. The alcohol plant produces fuel ethanol from dextrose (corn sugar) that is produced elsewhere at the complex. The permit would allow for a greater daily production rate of 1,000,000 gal/day, monthly average, of ethanol as 200 proof (100%) ethanol. At

the same time, ADM would install additional control devices to better control volatile organic material (VOM) emissions from the plant (refer to Attachment D).

2. The source is located in Decatur Township in Macon county. The area is designated attainment for all pollutants.

3a. The alcohol plant is subject to PSD review for volatile organic material (VOM) because:

i. ADM's Decatur complex is a major source of emissions;

ii. The expansion of the alcohol plant has the potential to increase emissions of VOM by a significant amount, i.e., more than 40 tons/year; and

iii. ADM has not previously obtained a PSD permit for the existing alcohol plant.

b. This permit is issued based upon the construction and operation of the expanded alcohol plant covered by this permit not constituting a major modification for the purpose of PSD for pollutants other than VOM. In this regard, this permit does not address drying of the residual solids from the fermentation process, which are transferred to and constitute a minor component in the feed drying operations at the corn wet mill.

4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the plant, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.

5. The Illinois EPA has determined that the plant, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply unless superseded by the following conditions.

2a. Significant emission units in the alcohol plant emitting VOM, other than units with negligible VOM emissions as identified in Attachment B, shall be enclosed and ducted through a closed vent system to a VOM emission control system as generally designated in Attachment A.

b. i. Each VOM emission control system shall be designed and operated to achieve at least 95% control of VOM comparing the amount of VOM introduced into the control system and the emissions to the atmosphere or achieve an outlet concentration of VOM not to exceed 20 ppm. These control systems shall be operated and maintained in conformance with good air pollution control practices.

ii. Notwithstanding the above:

A. In the event of a malfunction or breakdown of the CO_2 scrubbing system, the affected scrubber may be bypassed in order to avoid severe damage to equipment for a period not to exceed 12 hours while repairs are attempted. If repairs cannot be made within 12 hours, the fermentor blend rate shall be reduced to 75% of its maximum operating rate. This restriction will remain in effect until the control system is once again fully operational.

B. Outage of the CO_2 scrubbing system for scheduled preventative maintenance is allowed once in every six months for a period of up to 12 hours prior to mandatory reduction of fermentor blend rate as set forth in Condition 2(b)(ii)(A).

c. As an alternative to the above, a storage tank may be equipped, operated and maintained with a floating roof that would comply with 40 CFR 60 Subpart Kb.

3. Disposition of Collected VOM

All VOM collected through control systems, i.e. scrubbers or condensers effluent stream, shall be managed using best management practices to ensure that it is not emitted from another process, before being discharged to the waste water treatment plant at the source.

4a. The alcohol plant is subject to 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service in the alcohol plant pursuant to Subpart VV.

b. The Permittee shall implement a comparable leak detection and repair program including recordkeeping, for any components in VOM service in the alcohol plant that the Permittee excludes from requirements pursuant to 40 CFR 60, Subpart VV because they are not part of a process unit, e.g., piping associated with product loadout.

Conditions 2, 3 and 4 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

5. Good Air Pollution Control Practices

a. The Permittee shall operate, maintain, and repair emission units in the alcohol plant, including their associated control systems in a manner to minimize emissions and reasonably assure compliance with applicable emission standards by implementing the following procedures.

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

iii. Inventory of Parts: An inventory of spare parts that require routine replacement shall be maintained for all control systems.

iv. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice. Maintenance and repair shall be coordinated with scheduled outages of units. In the event of a malfunction or breakdown, the Permittee shall make all reasonable attempts to correct the problem in a timely manner including but not limited to calling in off shift, overtime and independent labor

v. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

A. Date of inspection, maintenance, and repair activities.

B. Description of maintenance or repair activity if not routine preventative maintenance.

C. Probable cause for requiring maintenance or repair if not routine or preventative.

b. The VOM control systems for processes shall be operated with their operating parameters at levels which compliance with applicable requirements has been demonstrated or shown, as follows:

i. For the flare on the loadout system, this shall be accomplished by operating the flare in accordance with 40 CFR 60.18.

ii. For other control systems, this shall be done by maintaining the operating parameters within the levels measured during emission testing in accordance with Condition 9 or relied upon to be excused from such testing. In particular:

A. For scrubbers, by maintaining minimum scrubbant flow rate and pressure drop of the scrubber. Scrubbant flow rate may be maintained at a level proportionate to the exhaust flow rate, if flow rate is measured.

B. For condensers, by maintaining inlet and outlet gas/liquid temperatures.

C. The above requirements.

6. Federal Standards for Storage Tanks

a. Existing denaturant (gasoline) storage tanks D-5 and D-6 are subject to 40 CFR 60 Subpart Ka and shall comply with all applicable requirements of this Subpart.

b. New Alcohol storage tank MST7 is subject to 40 CFR 60 Subpart Kb and shall comply with all applicable requirements of this Subpart.

7. Operating Limitations

a. The production rate of the alcohol plant shall not exceed 1,000,000 gallons/day, monthly average, determined as 200 proof ethanol not including denaturant.

b. Notwithstanding the above, the production rate of the existing alcohol plant, as addressed by this permit, shall not be in excess of 830,000 gallons/day monthly average as 200 proof ethanol, which is the current capacity of the ethanol plant, until construction of all new VOM control system is complete and

all testing requirements of this permit have been satisfied or such earlier date that the Permittee notifies the Illinois EPA that it will begin complying with the VOM limitation in Condition 8.

8. Emission Limitations

a. i. Plant emissions of VOM, other than from leaking components, shall not exceed 280 tons per year. This limit shall take effect 15 months after completion of the final control system (scheduled November 30, 2005) as specified in Attachment D, "Control System Installation Timeline". Compliance with this limit shall be determined on a rolling 12 month basis, with monthly compliance determinations.

ii. Beginning four months after completion of the final control system, plant emissions of VOM, other than from leaking components, shall not exceed a pro-rated share of the 280 ton annual limitation. For example, in this fourth month VOM emissions shall not exceed 1/12 of 280 tons; in the fourth and fifth month, VOM emissions shall not exceed 2/12 of 280 tons.

Note: The above limits do not include VOM emissions from leaking components.

This permit is issued based on maximum VOM emissions from leaking components of 450 tons/year. This determination is based on USEPA's SOCMI emissions estimating methodology and compliance with requirements of 40 CFR 60 Subpart VV for inspections, recordkeeping, and repair of leaking components.

b. VOM emissions from individual units (vents) shall not exceed the limits in Attachment C. Upon timely request by the Permittee, limits for individual units in Attachment C may be revised by the Illinois EPA based upon the results of the initial emissions testing as required by Condition 9 of this permit provided that the combined limits continue to meet the total limit in Attachment C.

9. Emissions Testing

a. i. Within 90 days of completion of the last control system utilizing wet scrubbing (scheduled for November 30, 2005), the Permittee shall have the VOM emissions from and efficiency of the VOM control systems, other than the flare, measured at its expense by an approved testing service, during conditions which are representative of

maximum emissions to verify compliance with the requirements of this permit.

ii. The Permittee shall retest these VOM control system at least every 5 years, or as established in the CAAPP permit.

iii. Where the inherent design of an existing control system makes inlet testing of the control system impractical or unreliable, the Illinois EPA may waive testing of inlet emissions provided that the Permittee provides information to the Illinois EPA that documents achievement of a control efficiency of at least 95% for VOM.

iv. Measurements of VOM emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance with such request.

v. If the Permittee is unable to test at 95% of plant or process capacity, an emissions test shall be repeated when consistent operation at 95% capacity is achievable.

b. The following methods and procedures shall be used for emission testing. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Volatile Organic Material	USEPA Method 25 or 25A and Method 18*

* VOM emissions from selected emission units shall be measured by using both Method 25 and Method 18 to develop an adjusted factor that is applied to measurements conducted by Method 25A to account for the presence of compounds other than ethanol in the emissions.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The methodology that will be used to determine the operating rate during the period of testing, e.g., the rate of VOM introduced to the plant.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report from testing shall include as a minimum:

i. A summary of results.

ii. General Information.

iii. A detailed description of methodology for determination of the rate of VOM introduced in to processes during the period of testing, with supporting information.

iv. Detailed description of operating conditions of the emission unit(s) being tested, including:

A. Process information, e.g. alcohol production rate; and

B. Control equipment information, i.e. equipment condition and operating parameters during testing, e.g. scrubbant flow rate and pressure drop.

v. Data and calculations.

10. Instrumentation and Monitoring

a. The Permittee shall install, operate and maintain measurement and monitoring devices as follows:

i. These devices shall be operational at all times that the unit on which it is located is in operation.

ii. These devices shall be installed, calibrated and maintained at least according to vendor's specifications and instructions.

iii. The Permittee shall keep logs for the operation and maintenance of these devices.

iv. The Permittee shall manually record the information from continuous monitoring systems at least once every two hours if automatic recoding devices are not in service for more than one hour.

b. The Permittee shall install, maintain and operate continuous monitors on the scrubbers for the following parameters:

i. Pressure drop

ii. Scrubbant flow rate (gallons/minute)

c. The Permittee shall install, maintain and operate continuous monitors on the condensers for the following parameters:

i. Outlet gas temperature and

ii. Inlet gas temperature

d. The Permittee shall equip each bypass vent in the ductwork to a control system with a device to identify release through the bypass vent.

11. Record Keeping

a. The Permittee shall maintain a file that contains the following which shall be kept current:

i. The Permittee shall keep an inventory of all equipment and/or components, by type, in VOM service required to be monitored by 40 CFR 60 subpart VV. In the case of flanges, fittings and connectors, the number of components may be determined by engineering estimate.

ii. The maximum VOM emissions from these components determined in accordance with SOCMI estimating guidance.

b. The Permittee shall keep the following operating records for the plant:

i. Alcohol production, gallons/month and gallons/day, monthly average.

ii. Amount and type of organic denaturant received, gallons/month

c. i. The VOM control systems, other than the loadout flare for the monitoring systems and measurements required by Condition 10 including:

A. Records of the data collected.

B. Records identifying periods of time other than routine calibration when required data was not collected.

ii. The Permittee shall maintain records for the flare of the analyses and calculations performed to verify with 40 CFR 60.18.

iii. The Permittee shall maintain the applicable records required by the NSPS for storage tanks controlled with floating roofs.

d. The Permittee shall maintain records for any period during which equipment in the alcohol plant was in operation when their air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

e. The Permittee shall maintain monthly records of the following items with supporting calculations, related to VOM emissions from the plant:

i. Periods of time when:

A. Significant processes vented to a control system were not in operation, or

B. The control system was not in service or operating properly

ii. The VOM (lbs) emitted from each significant processes during each month and year, based on stack test data, actual operation of control equipment and production rates.

iii. The VOM (lbs) emitted from storage and handling of alcohol, denaturant, denatured alcohol and each other volatile organic liquid stored at the plant, with supporting calculations. Emissions shall be calculated using the latest version of TANKS.

12. Retention and Availability of Records

a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. As required by rule to claim material as a trade secret the Permittee shall mark such records as trade secret, safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records

contain trade secrets. When copies of these records are provided to the Illinois EPA, upon its request, they shall be accompanied by a copy of the claim letter and the statement of justification.

13. Reports and Notifications

a. With its Annual Emission Statement the Permittee shall report the annual emissions of VOM from the plant with supporting summary activity data and calculations.

b. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

14. Agency Addresses

a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code 254, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

15. Effectiveness of Permit

a. i. Pursuant to 40 CFR 52.21(r)(2), this permit shall become invalid if construction is not commenced within 18 months after this permit becomes affective, if construction is discontinued for a period of 18 months or more, or if

construction is not completed with a reasonable period of time. The 18 month period may be extended by the Illinois EPA upon a satisfactory showing that an extension is justified. This condition supersedes Standard Condition 1.

ii. For this purpose, it is expected that the Permittee will commence and complete construction no later than the dates set forth in Attachment D. Unjustified delays in this schedule shall be considered a violation of this Permit.

b. i. For this purpose, further control of the existing alcohol plant and expansion of the alcohol plant shall be addressed separately. To "commence construction" of the expansion of the plant, the Permittee must commence construction on process equipment or control systems whose capacity facilitates the expansion of the plant. There after, until construction is complete, the Permittee shall submit annual reports to demonstrate that a continuous program of construction is underway, which reports shall describe the various new and replacement units that the Permittee has constructed in the last year and that intends to construct in the upcoming year.

ii. This permit shall become invalid as applied to further expansion of the alcohol plant if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time.

16. Other Requirements

This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State implementation Plan, as well as all other applicable local, state and federal requirements.

17. Authorization to Operate

Once construction of all new control systems is completed, the expanded alcohol plant as addressed by this permit may be operated pursuant to this permit until a CAAPP permit is issued for the source and this permit will supersede Construction Permit No. 94100011 for previous modifications to the alcohol plant.

Please note this permit has been revised to require manual recordkeeping at least once every two hours if automatic recording devices are not in service for more than one hour for continuous monitoring systems.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ATTACHMENT A

Alcohol Plant Process and Control Equipment

Description	Control
Sterile Tank	-
Dextrose Tank	-
Blend Tank	-
Propagators (4-12)	Wet Scrubbers
Fermenters (x-1 thru x-5, x-5A thru x-5d, x-6 thru x-14, A-1 thru A-6, B-1 thru B-6, C-2 thru C-6, and D-1 thru D-6)	Wet Scrubbers[1]
CO_2 Collection/Defoam Tank	Wet Scrubbers
Beer Wells (1 & 2)	Wet Scrubbers
MR Evaporators (1-6)	Wet Scrubber
Centrifuge	-
MR Feed, Product and Condensate Tanks	-
Distillation (Stills 1-6 and Grits 1-4)	Condensers and Wet Scrubbers
Reflux Stripper	Condensers and Wet Scrubbers
Fusel Oil Decanter and Tank	-
Recycle Tank	Wet Scrubber
Hi Wine Tanks (1-4 & 9)	Floating Roof or Condensers
Nitrogen Stripper	Wet Scrubber
Denaturant Tanks (D-5 & D-6)	Floating Roofs
Denatured Alcohol Storage Tanks (MST5, MST6 & MST7)	Floating Roofs
Loadout	Flare
Rust Inhibitor Tanks North and South	-
CO_2 Plant (Carbon and Dryer Columns)	-
CO_2 Stripper Column	Condenser

Notes:

1. The exhaust from the scrubber on the final stage is sent to the CO_2 plant at the complex.

ATTACHMENT B

List of Operations in Alcohol Plant with Negligible VOM Emissions

Description
Sterile Tank
Dextrose Tank
Blend Tank
Centrifuge
MR Feed, Product and Condensate Tanks
Fusel Oil Decanter and Tank
Rust Inhibitor Tanks North and South
CO_2 Plant (Carbon and Dryer Columns)

Attachment C

VOM Emission Limitations for Individual Emission Units (Vents)

Description	Limitations	
Fermentation/Distillation/Process	Lb/hr	Ton/yr
Propagators, Fermenters, and Beer Wells	25.0	109.5
Beer Stills Vent Scrubbers (1-4 East and West, 5 and 6)	12.0	52.6
CO_2 Stripper Condenser/Reflux Stripper Scrubber	2.0	8.8
Nitrogen Stripper Scrubber	10.0	43.8
Sharples	2.0	8.8
MR Evaporators	3.0	13.1
Truck and Rail Loadout	15.0	16.1
Total:	69.0	252.7
Process Tanks/Storage Tanks		
Fusel Oil Decanter	---	5.9
Fusel Oil Tank	---	0.1
Hi Wine Tanks (1,2,3,4 and 9)	---	4.2
Rust Inhibitor Tanks (North and South)	---	0.7
Denaturant Tanks (D-5 and D-6)	---	1.0
Denatured Alcohol Tanks (MST5, MST6)	---	1.0
Denatured Alcohol Tank (MST7)	---	0.5
Total:	---	13.4*
Misc. Units (Dextrose, Blend, Sterile Tank, etc.)*		13.8
Grand Total:		**280.0**

* This limitation accounts for emissions from miscellaneous units that have been individually addressed and are not subject to control requirements. For purposes of determining compliance with the VOM emission limitations in Condition 8(a), monthly VOM emissions from these units shall be presumed to be 1.15 tons.

Attachment D

Control System Installation Timeline

Control System	Start Date	Completion Date
Truck/Railcar Loadout Flare	June 1, 2003	May 31, 2004
Alcohol Storage Tanks (MST5 and MST6) Floating Roofs	June 1, 2003	May 31, 2004
Primary Fermentation CO_2 Collection and Scrubbing	July 1, 2003	Jan 31, 2005
Small Alcohol Storage Tanks ("High-Wine" Tanks) Floating Roofs	June 1, 2004	May 31, 2005
Alcohol Department MR Evaporator Scrubbing	*March 1, 2005	Aug. 31, 2005
Secondary Fermentation/Propagator CO_2 Collection and Scrubbing	*March 1, 2005	Aug. 31, 2005

* NOTE: The secondary fermentation CO_2 collection, scrubbing system and MR Evaporator scrubbing requires that the primary fermentation project be completed first.

KLS:00090052:psj

State Construction Permit 03080032

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniel Midlands Corn Processing Plant
Attn: Mark Carroll
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03080032 I.D. No.: 115015AAE
Applicant's Designation: Date Received: August 15, 2003
Subject: Scrubber
Date Issued: September 22, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a scrubber for existing sodium bisulfate storage tank as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the scrubber in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on negligible emissions of sulfur dioxides from the scrubber. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

3. The Permittee may operate the scrubber under this construction permit until its CAAPP permit is issued.

If you have any questions on this permit, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Construction Permit 03090034

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

ADM Corn Processing Plant
Attn: Mark Carroll
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03090034
I.D. No.: 115015AAE
Applicant's Designation:
Date Received: September 16, 2003
Subject: Corn Plant Anaerobic Wastewater Treatment System (East Plant)
Date Issued: October 17, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new anaerobic wastewater treatment system consisting of three lagoons with covers, two scrubbers (water and caustic) and a flare to control emissions from the three lagoons and replacement burners for existing fiber dryers 1-7 as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Anaerobic Wastewater Treatment System
Control: Scrubbers and Flare

1.1.1 Description

The Corn Plant Anaerobic Wastewater Treatment System will be located at ADM's East Plant. This new treatment system will reduce the load on the existing aerobic lagoons, which are currently utilized by the corn plant. The system will consist of three lagoons each covered by a floating membrane which will capture biogas. The biogas, which is mostly methane, is formed by anaerobic digestion of solids. The membrane will have channels operating at negative pressure which forces the biogas to flow to the edges and out through stacks for control.

The control system will consist of two scrubbers in series with the first being a water scrubber and the second being

a caustic scrubber. After the caustic scrubber, the biogas will consist primarily of methane with less than 200 ppm H_2S.

The scrubbed biogas will be combusted either in the new flare or in the existing Fiber Dryers 1-7. The preferred disposition of the biogas is to the Fiber Dryers since this will reduce the amount of natural gas fired in these existing dryers. Nevertheless, this permit allows a portion of the potential biogas to be flared.

The change to the fiber dryers will entail replacing or modifying burners with an equal capacity burner that can handle the potentially corrosive biogas.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Anaerobic Wastewater Treatment System	Three Anaerobic Wastewater Lagoons Each with a Cover	Two Scrubbers and Either a Flare or Existing Fiber Dryers with Existing Scrubbers

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected wastewater treatment system" for the purpose of these unit-specific conditions, is the wastewater treatment system described in Conditions 1.1.1 and 1.1.2.

b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm [35 IAC 214.301].

c. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a scrubber, the Permittee is authorized to continue operation of the affected wastewater treatment system in violation of the applicable requirement of 35 IAC 214.301, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair or replace the damaged feature(s) as soon as practicable. This shall be accomplished within 96 hours.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 1.1.9(d) and 1.1.10(a).

1.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on this project not being a major modification pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). This determination is made based on information provided in the application by the Permittee. The limits of this permit are established to ensure that this project does not constitute a major modification pursuant to PSD.

For this purpose, the Permittee has shown that there will be a negligible increase in emissions of PSD pollutants attributable to the installation of the new similar burners and consumption of biogas, since the combustion of methane is comparable to combustion of natural gas. In addition, there will be at most a negligible increase in future actual emissions of the fiber dryers above baseline actual emissions as a result of this project.

1.1.5 Operational and Production Limits and Work Practices

a. The control system shall be designed to have the following features:

i. Ability to bypass on or both scrubbers, so that biogas can be flared or sent to the dryers when the scrubbers are out of service for preventative maintenance; and

ii. Ability to vent biogas to a bladder or other containment system capable of holding an amount of biogas equivalent to a 5 minute release.

b. At all times, the Permittee shall, to the extent practicable, maintain and operate the lagoons, including associated air pollution capture and control equipment, in accordance with written operating procedures that provide for good air pollution control practice for minimizing emissions. At a minimum, these practices shall include:

i. The following provision for operation of the covers;

The digester system shall be vapor tight and under negative pressure insuring that all off gases are vented through the control system.

ii. The following provisions for operation of the scrubber:

The scrubbers shall be operated within the acceptable operating parameters as determined by the stack test required by Condition 1.1.7.

iii. The following provisions for operation of the flare:

A. The flare shall be operated with a flame present at all times.

B. The presence of a flare pilot flame shall be monitored using a thermocouple or other comparable device to detect the presence of a flame.

C. If the flame goes out, the flow of biogas to the flare shall be discontinued until the pilot flame or the main flame is restored, unless the flare also is designed to serve as the emergency relief stack, in which case the flow of biogas may continue as further allowed by the malfunction and breakdown provisions of this permit.

iv. Provisions for periodic inspection of the covers, scrubbers, and flare.

c. If the biogas flow rate to the flare exceeds 792 million cubic feet/year, the Permittee shall submit a report to the Illinois EPA identifying the maximum amount of biogas that will be flared and demonstrating that it can comply with Condition 1.1.6 when flaring the maximum amount of biogas.

1.1.6 Emission Limitations

a. Except during periods of malfunction and breakdown, the H_2S content of the treated biogas following the caustic scrubber (prior to combustion) shall not exceed 200 ppm.

b. i. Total combined emissions from the affected wastewater treatment system shall not exceed the following limits:

Pollutant	(Lb/MBtu)	Emissions (T/Mo)	(T/Yr)
NO_x	0.08	----	31.7
CO	0.20	----	79.2
SO_2	----	2.2	13.1*

* Note: This limit does not include emissions during malfunction and breakdown of the control system or emissions when appropriately scrubbed biogas is burned in the dryers.

ii. Emissions of SO_2 and H_2S from the affected wastewater treatment system during periods of malfunction and breakdown, including malfunction or breakdown of the collection system, the scrubbers, or the flare shall not exceed 18.9 tons SO_2/year and 8 tons H_2S/year, total. Emissions of SO_2 associated with burning biogas in the dryers during malfunction or breakdown of the scrubbers shall be included when determining compliance with this limit.

iii. This permit is issued based upon negligible emissions of particulate matter and volatile organic material from the affected wastewater treatment system. For this purpose, emissions of each pollutant shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 tons/yr.

iv. This permit is issued based on a negligible increase in emissions of NO_x, CO, VOM, PM/PM_{10}, and SO_2 associated with burning properly scrubbed biogas in the dryers.

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

a. Within 180 days of initial startup, the reduced sulfur content in the biogas before and after the

caustic scrubber shall be measured during conditions which are representative of summer operating conditions in terms of influent load to the control equipment.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Reduced Sulfur Compounds	USEPA Method 15A

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Compliance Section of the Division of Air Pollution Control for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

vi. Any proposed use of an alternative test method, such as use of an H_2S monitoring system with detailed justification. (Note:

Use of an alternative method is subject to approval by the Illinois EPA.)

vii. The format and content of the Source Test Report.

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results.

ii. General information.

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption, heat content of biogas;

B. Control equipment information, i.e., scrubbing agent, equipment condition and operating parameters during testing; and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

vi. An explanation of any discrepancies among individual tests or anomalous data.

f. Two copies of these reports and other required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

1.1.8 Monitoring Requirements

The Permittee shall monitor and record the following items to ensure proper operation of the scrubbing system:

a. A continuous record of the scrubbant flow rate for both the water and caustic scrubber (gallons/minute); and

b. A continuous record of the scrubbant pH for the caustic scrubber (pH).

1.1.9 Recordkeeping Requirements

a. The Permittee shall maintain a copy of the written operating procedures, required by Condition 1.1.5(c), which procedures shall be reviewed at least annually and revised as needed.

b. The Permittee shall maintain an operating log for the control system, that at minimum, identifies periods of time when the system is not in operation, maintenance and repair activities, actual scrubbant addition rates.

c. The Permittee shall maintain records of the following items for the affected wastewater treatment system:

i. Biogas flow rate to the control system (mmscf/month and mmscf/year);

ii. Flow rate of scrubbant in the water and caustic scrubbers;

iii. pH of the scrubbant in the caustic scrubber

iv. Hours of operation for the scrubber system (hours/month and hours/year); and

v. Disposition of biogas to the flare, and to fiber dryers (mmscf on a monthly basis); and

vi. NO_x, CO, VOM, PM/PM_{10}, H_2S and SO_2 emissions (tons/month and tons/year).

d. Records for Malfunctions and Breakdowns

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of the affected wastewater treatment system during malfunctions and breakdown of the scrubbers, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or replaced without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

1.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of the affected wastewater treatment system with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions from the affected wastewater treatment system in excess of the limits specified in Condition 1.1.6 within 30 days of such occurrence.

b. Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports to the Illinois EPA, pursuant to 35 IAC 201.263, concerning continued operation of the affected wastewater treatment system with SO_2 emissions in excess of 2000 ppm during malfunction or breakdown.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three days, upon the occurrence of noncompliance due to malfunction or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA providing a detailed explanation of the event, an explanation why continued operation of the affected wastewater treatment system was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed.

iii. If compliance is not achieved within 3 days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA on a daily basis, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

1.1.12 Compliance Procedures

a. Compliance with the NO_x and CO emission limitations specified in Condition 1.1.6 shall be based on the recordkeeping requirements of Condition 1.1.9, the following formula, and appropriate emission factors:

i. NO_x Emissions = (factor, lbs NO_x/MBtu) x (biogas flow rate to flare, mmscf) x (heat content, MBtu/mmscf)

ii. CO Emissions = (factor, lbs CO/MBtu) x (biogas flow rate to flare, mmscf) x (heat content, MBtu/mmscf)

b. Compliance with the SO_2 emission limitations from the flare specified in Conditions 1.1.3(b), 1.1.6(b)(i) and (ii) shall be based on the recordkeeping requirements of Condition 1.1.9 and an appropriate emission factor developed from the stack test required by Condition 1.1.7. When biogas is sent to the dryers during malfunction or breakdown of the scrubbers in the wastewater treatment system, SO_2 emissions shall be calculated without reliance on any control provided by the scrubbers on the fiber dryers.

2. Operation of the affected wastewater treatment system is allowed for a period of 2 years under this construction permit so as to allow time to perform stack testing.

If you have any questions on this, please call Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:psj

cc: Region 3

State Joint Construction and Operating Permit 02110034

217/782-2113

JOINT CONSTRUCTION/OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Mark Carroll
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02110034
Applicant's Designation:
Subject: Baghouse
Date Issued: December 2, 2002
Date: December 2, 2007
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: November 15, 2002

Operating Permit Expiration

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a baghouse for the diatomaceous earth storage tank as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the baghouse in a manner consistent with good air pollution control practice for minimizing emissions.

3. This permit is issued based on negligible emissions of particulate matter from the baghouse. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Construction Permit 02040079

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02040079
Subject: Scrubber for HCL Tanks
Date Issued: June 27, 2002
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: April 23, 2002

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new scrubber on existing hydrochloride acid (HCl) receiving and storage tanks as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the scrubber in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on negligible emissions of hazardous air pollutants (HAPs) from the receiving and storage of HCl. For this purpose, emissions shall not exceed nominal emission rates of 0.44 ton/year, total.

3a. The Permittee shall keep a file with the design information and engineering calculations for the performance of the scrubber to control HCl emissions.

b. The Permittee shall keep records of the throughput of HCl in the tanks.

c. The Permittee shall maintain logs of inspection, maintenance, and repairs for the scrubber to demonstrate good air pollution control practice.

4. The Permittee may operate the existing HCl receiving and storage operations with this new scrubber under this construction permit until its CAAPP permit is issued.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

State Joint Construction and Operating Permit 01110047 Prevention of Significant Deterioration (PSD) Approval

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 01110047 I.D. No.: 115015AAE
Applicant's Designation: CF OXIDIZERS
Date Received: November 20, 2001
Subject: Oxidizers for Carbon Furnaces
Date Issued: November 27, 2002
Expiration Date: November 27, 2007
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT an oxidizer control system for three existing carbon furnaces and to OPERATE these furnaces with this new system and existing air pollution control equipment, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given pursuant to the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21, to construct the proposed oxidizer control system and to operate the three carbon furnaces with this new system and existing control systems, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the federal rules promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and the conditions that follow:

1. Archer Daniels Midland (ADM) has requested a joint construction and operating permit addressing the three existing carbon furnaces used in the production of corn syrup at its Decatur manufacturing complex. The furnaces function to regenerate activated carbon, which is used to

filter the raw corn syrup. The permit would establish requirements for a new oxidizers, i.e., combustion units, that would be installed to control emissions of volatile organic compounds (VOC) and carbon monoxide (CO) from the furnaces. In conjunction with this system, ADM may also make changes to the existing scrubbing units on the furnaces, which control emissions of particulate matter (PM) and sulfur dioxide (SO_2).

2. The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.

3a. The requested permit would allow annual VOC and CO emissions of 35.0 and 87.6 tons, respectively, from the three carbon furnaces.

b. The two newer furnaces, which were installed in 1981 and 1990, are subject to PSD for VOC and CO emissions because they were not previously addressed by a PSD permit. The oldest furnace, which was installed in 1976, predates the PSD rules. However, because the proposed control would also control this furnace, it is also subject to the terms and conditions of this permit.

c. This permit is issued based on the carbon furnaces not being subject to PSD for PM, SO_2 and NO_x. This is because for these pollutants, the emissions of each of the two newer furnaces have been below the PSD thresholds for a major modification. Accordingly, as provisions of this permit address PM, SO_2 or NO_x, they are not considered part of the PSD approval.

d. This permit does not explicitly address emissions of hazardous air pollutants from the carbon furnaces, which are expected to greatly reduced, along with VOC and CO emissions, by the addition of the new control.

4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the operation of the carbon furnaces, as now proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOC and CO.

5. The new control system will reduce the VOC and CO emissions and associated air quality impacts of the three furnaces to levels below those accompanying the operation of the initial furnace, which was installed prior to the PSD rules. Accordingly, this project results in an improvement in air quality not only compared to current levels but also compared to baseline levels when the PSD rules were adopted.

6. The Illinois EPA has determined that this application complies with all applicable Illinois Air Pollution Board Regulations and the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

7. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following conditions.

2a. i. The VOC and CO emissions from the carbon furnaces shall pass through a closed vent system to a combustion-type control unit before being discharged to the atmosphere.

ii. These combustion units shall be equipped with supplemental fuel burners as needed to preheat and maintain the temperature in the combustion chamber(s) and shall have the ability to introduce supplemental air into the exhaust stream if needed to facilitate combustion.

iii. The entire control system shall be operated in accordance with good air pollution control practice to minimize emissions including preheating the combustion chamber of individual combustion units to at least the manufacturer's recommended temperature prior to venting carbon furnace(s) to the unit and other practices as further specified.

b. These combustion units shall be operated to comply with one of the following performance standards, with compliance determined on an hour-by-hour basis, based on emissions testing, monitoring, and recordkeeping as specified by this permit:

i. Performance standard in terms of emissions (Compliance Option 1):

A. Emissions of VOC shall not exceed 10.0 ppm, measured as propane, adjusted to 7 percent oxygen in the exhaust, and

B. Emissions of CO shall not exceed 100 ppm, adjusted to 7 percent oxygen in the exhaust stream.

ii. Performance standard in terms of control system efficiency, comparing the mass of the pollutant in the inlet and outlet of the system (Compliance Option 2):

A. Efficiency for VOC, measured as propane, shall be at least 98.0 percent, and

B. Efficiency for CO shall be at least 90.0 percent.

iii. Performance standard in terms of operating practices (Compliance Option 3):

A. The residence time of the exhaust stream in the combustion chamber of the control unit shall be at least 0.75 second,

B. The temperature in the combustion chamber shall be at least 1600°F, hourly average, and

C. The oxygen concentration in the exhaust stream leaving the combustion chamber shall be at least 3.5 percent.

Note: After the date that emission testing must be performed, Compliance Option 3 is only available if emission testing measuring both VOC and CO emissions has been performed while the control units are operated to comply with the applicable requirements of this compliance option. (Refer to Condition 9.)

c. i. The above performance standards become effective for each carbon furnace after a 45-day shakedown period. This shakedown period shall begin upon initial start-up of the new combustion control system. for the furnace(s) connected to the system at that time, or otherwise upon initial operation of a furnace following connection to the new system.

ii. After this 45-day shakedown period but prior to availability of results from emission testing in accordance with Condition 9, the Permittee shall operate the new control system for a carbon furnace in accordance with interim work practices established by the Permittee to achieve good combustion.

iii. Following shakedown and completion of emission testing, these performance standards shall apply at all times that a carbon furnace is in operation except:

A. During periods when the Permittee is transitioning between Compliance Options, which periods shall be as short as reasonably practicable and in no case greater than 30 minutes; and

B. During formal system evaluation. For this purpose, formal system evaluation means subsequent evaluation and emission testing of the control system performed with the intent of establishing revised operating parameters in accordance

with an evaluation/test plan previously submitted to the Illinois EPA and any terms imposed on the plan by the Illinois EPA as part of its approval. (Refer to Condition 7(c))

Conditions 2 and 3 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

3a. The Permittee shall install combustion units to control the emissions of the three carbon furnaces, which units the Permittee shall then operate to comply with other provisions of this permit.

b. i. The only fuel fired in the combustion units shall be natural gas.

ii. The only fuel fired in the carbon furnaces shall be natural gas.

4a. The carbon furnaces shall comply with the limits for SO_2 and PM in Table I, as applicable. These limits are effective upon issuance of this permit, except as addressed in Condition 6.

b. The carbon furnaces shall comply with the limits for VOC, CO and NOx in Table I, as applicable. These limits are effective after a 180 day period of trial operation. This period shall begin upon initial start-up of the new combustion control system for the furnace(s) and combustion unit(s) in the system at that time, or otherwise upon initial operation of the furnace or combustion unit.

Note: The above emission limits are based on information in the permit application.

5a. Except during formal evaluation of the emission control system, the Permittee shall operate emission units and air pollution control equipment, including closed vent systems, in a manner that assures the emission standards and limits set in this permit are met by maintaining the operating parameters of emissions units and control systems within the levels during emission testing pursuant to Condition 7 that demonstrates compliance with applicable requirements, as follows:

i. The process rate of the carbon furnaces shall not exceed the highest hourly rate or 105 percent of the average rate achieved during emission testing, whichever is higher, determined on an hourly basis.

ii. The scrubbant flow rate*, determined on a block hourly, shall be at least that during emission testing.

* Scrubbant flow rate may be maintained at a level proportionate to the exhaust flow rate, if exhaust flow rate through the scrubber is measured.

iii. The pressure drop across the scrubber or the exhaust flow rate through the scrubber, determined on a block hourly basis, shall be consistent with a level that assures proper control of PM and SO_2, as determined from the values of the operating parameter during emission testing.

iv. A. If the Permittee is relying on Compliance Option 1 or 2, the monitored combustion chamber temperature shall be at least that during emission testing, determined on a block hourly average or the monitored CO emissions (if monitored data required pursuant to Condition 9(a) is available) shall be no more than that measured during emission testing on a block hourly average.

B. If the Permittee is relying on Compliance Option 3, the monitored combustion chamber temperature and oxygen concentration in the exhaust, shall be at least that specified for this Compliance Option, determined on a block hourly average, and the flow rate through the combustion unit shall be such that the residence time is at least 0.75 seconds (see also Condition 12(a)(ii)).

b. Notwithstanding these compliance procedures for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

c. The control systems shall be operated and maintained in conformance with good air pollution control practices. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

i. Operating Procedures: Operation and maintenance in accordance with written operating procedures developed and maintained by the Permittee that address normal air pollution control equipment operation and inspection and maintenance practices. Among other matters, these procedures shall specify the operating parameters for emission units and control equipment, as required above. A copy of these procedures shall be kept in the control room for the carbon furnaces.

ii. Inspections: Inspections of air pollution control equipment shall be conducted on a regular basis.

iii. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations to keep control systems in good working order.

iv. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

A. Date of inspection, maintenance, and repair activities.

B. Description of maintenance or repair activity if not routine preventative maintenance.

C. Probable cause for requiring maintenance or repair if not routine or preventative.

6a. During the 90 day period following initial startup of a combustion unit, the Permittee may operate the associated scrubber at reduced scrubbant flow rates and reagent content in the scrubbant as reasonably needed for shakedown of the combustion unit, pursuant to 35 IAC 201.262. As part of the continuing shakedown of the system, the Permittee shall evaluate the range of scrubbant flow rate that provides reliable control of particulate matter and sulfur dioxide while not adding excessive levels of moisture to exhaust stream. The normal operating parameters of the scrubber shall be finalized prior to performance of the emission testing required by Condition 7.

b. The Permittee is authorized to make improvements to the existing scrubbers pursuant to this permit following written notice to the Illinois EPA, including changes to spray nozzles for more effective water distribution, changes to the Venturi throats, addition of packing material to improve collection of water droplets, and changes to drainage or cleaning flow to reduce accumulation of material in the control system.

c. Notwithstanding the above, the Permittee shall obtain a construction permit prior to physically removing any existing control device in the control system for the carbon furnaces.

7a. i. Within 90 days of initial startup of each combustion unit, the Permittee shall have measurements conducted at its own expense by an approved testing service of the VOC and CO destruction efficiency of the unit and the VOC, CO, PM, SO_2 and NO_x emissions of and opacity of exhaust from the carbon furnaces as controlled by the combustion unit(s) when operated at range of normal flow rates and other conditions which are representative of maximum emissions of PM and SO_2 and minimum loadings of VOC and CO.

ii. Measurements of VOC and CO destruction efficiency and VOC, CO, PM and SO_2 emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance with such request.

iii. The time period for performance of these tests may be extended by the Illinois EPA if it determines that additional time is needed to complete the shakedown of the combustion unit(s).

b. i. The following methods and procedures shall also be conducted upon reasonable written request from the Illinois EPA.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
Carbon Monoxide	USEPA Method 10
Volatile Organic Compounds	USEPA Method 25A
Particulate Matter	USEPA Method 5
Condensable Particulate	USEPA Method 202
Sulfur Dioxide	USEPA Method
Nitrogen Oxides	USEPA Method
Opacity	USEPA Method 9

ii. As an alternative to measurement of condensable particulate matter, the Permittee may measure and report the material collected by the back half of the train by Method 5, as condensable particulate.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. The testing service that will be performing sampling and analysis and its experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

iii. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations.

iv. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 45 days after the test results are compiled and finalized. The Final Report from testing shall include as a minimum:

i. General Information, i.e., date of testing, testing personnel, and observers.

ii. A summary of results and conclusions.

iii. Description of test method(s), including description of sampling points, sampling train, and analysis equipment.

iv. A detailed description of methodology for determination of the operating rate of the carbon furnaces, see Condition 5(a)(i), during the period of testing, with supporting information.

v. Detailed description of operating conditions during emission testing, including:

A. Operating information for the carbon furnaces, e.g., process rate; and

B. Control system information, i.e. flow rate, solids content, and pH of scrubbant, scrubber pressure drop, combustion chamber temperature, exhaust oxygen concentration and other relevant operating parameters of the control system.

vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

8a. i. The Permittee shall install, operate and maintain measurement and monitoring devices as follows for the carbon furnaces and associated control equipment.

ii. These devices shall be operational at all times that the unit on which it is located is in operation.

iii. Theses device shall be installed, calibrated and maintained at least according to vendor's specifications and instructions.

iv. The Permittee shall keep logs for the operation and maintenance of these devices.

v. The Permittee shall manually record the information from continuous monitoring systems at least once every 30 minutes if automatic recording devices are not in service for more than one hour.

b. The Permittee shall install device(s) on each carbon furnace to measure its operating rate. These devices may measure the amount of carbon processed, inlet air flow rate, or other operating parameter that correlates with to the emissions generated by the carbon furnaces.

c. i. The Permittee shall monitor the following parameters on each scrubber:

A. Scrubbant flow rate (gallons per minute); and

B. Pressure drop.

ii. The Permittee shall sample and analyze the scrubbant in each scrubber for pH and alkalinity. At a minimum, these samples shall be taken before and after each change to the specifications or settings for the scrubbant in the unit and before and after any changes to the settings for scrubbant flow rate and pressure drop, as monitored above.

d. The Permittee shall monitor the following parameters on each combustion unit:

i. Combustion chamber temperature, °F.

ii. Oxygen concentration in the exhaust, if the Permittee elects to have the ability to rely on Option 3.

e. The Permittee shall equip each bypass vent in the ductwork with a device to identify release of exhaust through the bypass vent.

9a. The Permittee shall install, calibrate, maintain and operate a carbon monoxide (CO) continuous emission monitoring system on the exhaust from each combustion unit within one year after the initial emission testing required by Condition 7 unless this testing or further testing conducted by the Permittee demonstrates that the unit normally complies with the Compliance Option in Condition 2(b)(i) or (ii) by a margin of at least 25 percent or the Illinois EPA approves further time for the Permittee to achieve this performance.

b. i. These monitoring systems shall be operated during all periods of operation of the combustion unit except for continuous emission

monitoring system breakdowns and repairs. The Permittee shall comply with applicable requirements of the NSPS for continuous emission monitoring, unless otherwise specified in the CAAPP permit.

ii. The Permittee shall maintain records for the continuous monitoring systems, including recorded emission concentrations and records of maintenance, calibration, and operational activity associated with the system. [See also Condition 10(c)]

iii. The Permittee shall submit quarterly monitoring reports to the Illinois EPA for these systems.

c. The requirements for these monitoring systems may be revised or waived in the Clean Air Act Permit Program (CAAPP) permit for the source if the Illinois EPA determines that compliance with requirements for VOC emissions is not facilitated to a significant degree by such monitoring.

10a. The Permittee shall maintain a file that includes the following information, which shall be kept current:

i. The volume of the combustion chamber in each combustion unit, including supporting drawings and calculations.

ii. The exhaust flow rate of each carbon furnace under its normal range of operating rate, the theoretical residence time of exhaust gases in the combustion chamber of the combustion unit during different operating configurations of the carbon furnaces, and restrictions on the operation of the carbon furnaces necessary to comply with applicable requirements when only one combustion unit is in service, with supporting documentation and calculations.

iii. An evaluation of the role of the scrubber in controlling particulate matter and sulfur dioxide emissions from the furnaces, including identification of the minimum level of particulate matter removal from the scrubber that is required, considering the addition of particulate matter to the exhaust from solids contained in the scrubbant.

iv. Changes in the operation of the carbon furnaces or the scrubbers that would significantly increase the amount or concentration of VOC, CO, PM, SO_2 or NO_x or the amount of sulfur contained in the exhausts from the carbon furnaces.

v. Copies of test reports for emission tests conducted on the carbon furnaces, including testing conducted pursuant to Condition 7.

b. The Permittee shall maintain the following records on at least a monthly basis:

i. The amount of activated carbon processed by the carbon furnaces.

ii. The amount of natural gas used by the carbon furnaces and the combustion units.

iii. The amount of reagent (caustic) used in the scrubber to absorb SO_2.

c. The Permittee shall maintain records for the monitoring systems and measurements required by Condition 8 and 9, including:

i. Records of the data collected.

ii. Records identifying periods of time other than routine calibration when required data was not collected.

d. The Permittee shall maintain an operating log for the carbon furnaces and associated combustion units that at a minimum includes the following information:

i. The carbon furnaces and combustion units are in operation at any time, including date and time of startup and shutdown of individual units;

ii. Changes in the Compliance Option being relied upon for the carbon furnaces, including the new Compliance Option, the date, time and reason for the change, and information on any transition period between the two Compliance Options, if present.

iii. Documentation for reduced operation of carbon furnaces, if necessary to maintain compliance during outage of an combustion unit.

e. The Permittee shall record any period during which a carbon furnace was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for the exceedance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

f. The Permittee shall keep records for VOC, CO, NOx, SO2 and PM emissions from the carbon furnaces to address compliance with the annual emission limits in Condition 4.

11a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. As required by rule, to claim such material as a trade secret the Permittee shall mark such records trade secret, safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, upon its request, they shall be accompanied by a copy of the claim letter and the statement of justification.

12a. i. The Permittee shall provide notification to the Illinois EPA within 10 days of the initial start-up of the first combustion unit. With this notification, the Permittee shall identify the carbon furnace(s) that are connected to the unit and submit a schematic diagram for the control train for the carbon furnaces, which identified each furnace, each control device, and associated ductwork, dampers, vents, operating instrumentation and stacks.

ii. Thereafter, the Permittee shall promptly notify the Illinois EPA of each initial startup of an additional combustion unit and each initial operation of a carbon furnace with a combustion unit (which furnace was not previously controlled by a combustion

unit). With these notifications, the Permittee shall submit an updated schematic diagram for the control train for the furnaces, if the previously submitted diagram is no longer accurate.

iii. During the period between the first notification above and submittal of the Final Report for emission testing pursuant to Condition 7(a)(i), the Permittee shall submit monthly status reports on the shakedown and operation of the new control train for the carbon furnace, including a description of any operational or physical changes to control device and an updated schematic for the control train, if needed.

b. With the Annual Emission Report required by 35 IAC Part 254, the Permittee shall submit an annual compliance report that summarizes the percentage of operating time of the carbon furnace area that it relied upon each Compliance Option.

c. If there is an exceedance of the emission standards or limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall provide the date, duration and a description of the exceedance, identify the applicable requirement(s) that were not met, describe efforts made to reduce emissions or return to compliance, and describe efforts made to prevent similar exceedances in the future.

13a. Two copies of any reports and notifications required by this permit shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all reports and notifications required by this permit shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

14a. This permit authorizes the Permittee to construct and operate a combustion control system for the three carbon furnaces that may vary in the number of combustion units (two or three units) and the approach to control (common control or dedicated control).

b. As the Permittee elects common control, compliance provisions of this permit, such as those in Conditions 5(a), 10 and 12(c), shall be appropriately implemented to address both individual and overall compliance by the carbon furnaces and the combustion units with the emission limits and operating standards set by this permit.

c. As the Permittee elects dedicated control, compliance provisions of this permit shall be appropriately implemented to address individual compliance by each carbon furnace and its associated combustion unit with the emission limits and operating standards set by this permit.

d. No later than 90 days after the conclusion of the trial periods of operation provided by Condition 4(b), the Permittee shall apply for a revision of this permit to clarify the provisions of the permit to address the combustion control system that has been installed.

e. Notwithstanding the above, if the Permittee develops a combustion control system that is not addressed by one of the options for Condition 4(b), such as use of three combustion units for common control or a combination of common and dedicated control, the Permittee shall apply for a revision of this permit within 30 days to establish appropriate emission limits and other related provisions for such control system and to clarify other provisions of this permit. A revision of the permit for this purpose may be treated as a minor amendment if combined emission limits for the carbon furnaces are no greater than the limits in Table I.

15. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements that are part of Illinois' State Implementation Plan, as well as all other applicable local, state and federal requirements.

If you have any questions concerning this permit, please contact Christopher Romaine at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:CPR:jar

cc: Region 3

Table I: Emission Limits for Individual Units

Option 1 - Common Control with Two Shared Combustion Units
(Applicable if two combustion units are used for common control of the carbon furnaces)

These limits address emissions from individual units as would be measured at appropriate points in the ductwork of the carbon furnaces, i.e., following the individual scrubbers on each carbon furnace or following each of the two combustion units.

Unit	Form of Limit	Pollutant				
		VOC	CO	NO_x	SO_2	PM
Carbon Furnace 1	Hourly (lb/hr)	---	---	4.25	4.55	1.40
	Annual (ton/yr)	---	---	18.62	19.93	6.13
Carbon Furnace 2	Hourly (lb/hr)	---	---	4.25	4.55	1.40
	Annual (ton/yr)	---	---	18.62	19.93	6.13
Carbon Furnace 3	Hourly (lb/hr)	---	---	8.50	9.10	2.80
	Annual (ton/yr)	---	---	37.23	39.85	12.25
Combustion Unit 1	Hourly (lb/hr)	4.00	25.0	9.10	9.10	2.80
"	Annual (ton/yr)	17.52	109.5	39.85	39.85	12.25
Combustion Unit 2	Hourly (lb/hr)	4.00	25.0	9.10	9.10	2.80
"	Annual (ton/yr)	17.52	109.5	39.85	39.85	12.25

Note:

[1] The combined limits address total emissions from the three carbon furnaces, as could be measured in a single stack serving all furnaces. These limits become applicable when all three furnaces are controlled with combustion units and are subject to individual limits.

Option 2 - Individual Control with Separate Combustion Units
(Applicable if a separate combustion unit is used for each carbon furnace)

These limits address emissions from individual units as would be measured in a separate stack for each carbon furnace or in the ductwork for each furnace before a common stack.

Unit	Form of Limit	Pollutant				
		VOC	CO	NO_x	SO_2	PM
Carbon Furnace 1	Hourly (lb/hr)	2.67	16.67	4.25	4.55	1.40
	Annual (ton/yr)	11.68	73.0	18.62	19.93	6.13
Carbon Furnace 2	Hourly (lb/hr)	2.67	16.67	4.25	4.55	1.40
	Annual (ton/yr)	11.68	73.0	18.62	19.93	6.13
Carbon Furnace 3	Hourly (lb/hr)	2.67	16.67	8.50	9.10	2.80
	Annual (ton/yr)	11.68	73.0	37.23	39.85	12.25
Combined[1]	Annual (ton/yr)	35.00	219.0	79.70	79.70	24.50

Note:

[1] The combined limits address total emissions from the three furnaces as could be measured in a single stack. These limits become applicable when all three furnaces have combustion units and are subject to individual limits.

CPR:jar

State Joint Construction and Operating Permit 00090052
Prevention of Significant Deterioration (PSD) Approval

JOINT CONSTRUCTION AND OPERATING PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL
NSPS SOURCE

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.:00090052
I.D. No.: 115015AAE
Applicant's Designation: ALCOHOL PSD
Date Received: September 21, 2000
Subject: Ethyl Alcohol Production
Date Issued: March 28, 2003
Expiration Date: March 28, 2008
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of an expansion of the alcohol production plant with installation of additional air pollution control equipment and the equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct and operate the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a joint construction and operating permit for the Alcohol Plant (Plant) at its Decatur manufacturing complex. The alcohol plant produces fuel ethanol from dextrose (corn sugar) that is produced elsewhere at the complex. The

permit would allow for a greater daily production rate of 1,000,000 gal/day, monthly average, of ethanol as 200 proof (100%) ethanol. At the same time, ADM would install additional control devices to better control volatile organic material (VOM) emissions from the plant (refer to Attachment D).

2. The source is located in Decatur Township in Macon county. The area is designated attainment for all pollutants.

3a. The alcohol plant is subject to PSD review for volatile organic material (VOM) because:

i. ADM's Decatur complex is a major source of emissions;

ii. The expansion of the alcohol plant has the potential to increase emissions of VOM by a significant amount, i.e., more than 40 tons/year; and

iii. ADM has not previously obtained a PSD permit for the existing alcohol plant.

b. This permit is issued based upon the construction and operation of the expanded alcohol plant covered by this permit not constituting a major modification for the purpose of PSD for pollutants other than VOM. In this regard, this permit does not address drying of the residual solids from the fermentation process, which are transferred to and constitute a minor component in the feed drying operations at the corn wet mill.

4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the plant, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.

5. The Illinois EPA has determined that the plant, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply unless superseded by the following conditions.

2a. Significant emission units in the alcohol plant emitting VOM, other than units with negligible VOM emissions as identified in Attachment B, shall be enclosed and ducted through a closed vent system to a VOM emission control system as generally designated in Attachment A.

b. i. Each VOM emission control system shall be designed and operated to achieve at least 95% control of VOM comparing the amount of VOM introduced into the control system and the emissions to the atmosphere or achieve an outlet concentration of VOM not to exceed 20 ppm. These control systems shall be operated and maintained in conformance with good air pollution control practices.

ii. Notwithstanding the above:

A. In the event of a malfunction or breakdown of the CO_2 scrubbing system, the affected scrubber may be bypassed in order to avoid severe damage to equipment for a period not to exceed 12 hours while repairs are attempted. If repairs cannot be made within 12 hours, the fermenter blend rate shall be reduced to 75% of its maximum operating rate. This restriction will remain in effect until the control system is once again fully operational.

B. Outage of the CO_2 scrubbing system for scheduled preventative maintenance is allowed once in every six months for a period of up to 12 hours prior to mandatory reduction of fermenter blend rate as set forth in Condition 2(b)(ii)(A).

c. As an alternative to the above, a storage tank may be equipped, operated and maintained with a floating roof that would comply with 40 CFR 60 Subpart Kb.

3. Disposition of Collected VOM

All VOM collected through control systems, i.e. scrubbers or condensers effluent stream, shall be managed using best management practices to ensure that it is not emitted from another process, before being discharged to the waste water treatment plant at the source.

4a. The alcohol plant is subject to 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service in the alcohol plant pursuant to Subpart VV.

b. The Permittee shall implement a comparable leak detection and repair program including recordkeeping, for any components in VOM service in the alcohol plant that the Permittee excludes from requirements pursuant to 40 CFR 60, Subpart VV because they are not part of a process unit, e.g., piping associated with product loadout.

Conditions 2, 3 and 4 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

5. Good Air Pollution Control Practices

a. The Permittee shall operate, maintain, and repair emission units in the alcohol plant, including their associated control systems in a manner to minimize emissions and reasonably assure compliance with applicable emission standards by implementing the following procedures.

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

iii. Inventory of Parts: An inventory of spare parts that require routine replacement shall be maintained for all control systems.

iv. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice. Maintenance and repair shall be coordinated with scheduled outages of units. In the event of a malfunction or breakdown, the Permittee shall make all reasonable attempts to correct the problem in a timely manner including but not limited to calling in off shift, overtime and independent labor

v. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

A. Date of inspection, maintenance, and repair activities.

B. Description of maintenance or repair activity if not routine preventative maintenance.

C. Probable cause for requiring maintenance or repair if not routine or preventative.

b. The VOM control systems for processes shall be operated with their operating parameters at levels which compliance with applicable requirements has been demonstrated or shown, as follows:

i. For the flare on the loadout system, this shall be accomplished by operating the flare in accordance with 40 CFR 60.18.

ii. For other control systems, this shall be done by maintaining the operating parameters within the levels measured during emission testing in accordance with Condition 9 or relied upon to be excused from such testing. In particular:

A. For scrubbers, by maintaining minimum scrubbant flow rate and pressure drop of the scrubber. Scrubbant flow rate may be maintained at a level proportionate to the exhaust flow rate, if flow rate is measured.

B. For condensers, by maintaining inlet and outlet gas/liquid temperatures.

C. The above requirements.

6. Federal Standards for Storage Tanks

a. Existing denaturant (gasoline) storage tanks D-5 and D-6 are subject to 40 CFR 60 Subpart Ka and shall comply with all applicable requirements of this Subpart.

b. New Alcohol storage tank MST7 is subject to 40 CFR 60 Subpart Kb and shall comply with all applicable requirements of this Subpart.

7. Operating Limitations

a. The production rate of the alcohol plant shall not exceed 1,000,000 gallons/day, monthly average, determined as 200 proof ethanol not including denaturant.

b. Notwithstanding the above, the production rate of the existing alcohol plant, as addressed by this permit, shall not be in excess of 830,000 gallons/day monthly average as 200 proof ethanol, which is the current capacity of the ethanol plant, until construction of all new VOM control system is complete and

all testing requirements of this permit have been satisfied or such earlier date that the Permittee notifies the Illinois EPA that it will begin complying with the VOM limitation in Condition 8.

8. Emission Limitations

a. i. Plant emissions of VOM, other than from leaking components, shall not exceed 280 tons per year. This limit shall take effect 15 months after completion of the final control system (scheduled November 30, 2005) as specified in Attachment D, "Control System Installation Timeline". Compliance with this limit shall be determined on a rolling 12 month basis, with monthly compliance determinations.

ii. Beginning four months after completion of the final control system, plant emissions of VOM, other than from leaking components, shall not exceed a pro-rated share of the 280 ton annual limitation. For example, in this fourth month VOM emissions shall not exceed 1/12 of 280 tons; in the fourth and fifth month, VOM emissions shall not exceed 2/12 of 280 tons.

Note: The above limits do not include VOM emissions from leaking components.

This permit is issued based on maximum VOM emissions from leaking components of 450 tons/year. This determination is based on USEPA's SOCMI emissions estimating methodology and compliance with requirements of 40 CFR 60 Subpart VV for inspections, recordkeeping, and repair of leaking components.

b. VOM emissions from individual units (vents) shall not exceed the limits in Attachment C. Upon timely request by the Permittee, limits for individual units in Attachment C may be revised by the Illinois EPA based upon the results of the initial emissions testing as required by Condition 9 of this permit provided that the combined limits continue to meet the total limit in Attachment C.

9. Emissions Testing

a. i. Within 90 days of completion of the last control system utilizing wet scrubbing (scheduled for November 30, 2005), the Permittee shall have the VOM emissions from and efficiency of the VOM control systems, other than the flare, measured at its expense by an approved testing service, during conditions which are representative of

maximum emissions to verify compliance with the requirements of this permit.

ii. The Permittee shall retest these VOM control system at least every 5 years, or as established in the CAAPP permit.

iii. Where the inherent design of an existing control system makes inlet testing of the control system impractical or unreliable, the Illinois EPA may waive testing of inlet emissions provided that the Permittee provides information to the Illinois EPA that documents achievement of a control efficiency of at least 95% for VOM.

iv. Measurements of VOM emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance with such request.

v. If the Permittee is unable to test at 95% of plant or process capacity, an emissions test shall be repeated when consistent operation at 95% capacity is achievable.

b. The following methods and procedures shall be used for emission testing. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Volatile Organic Material	USEPA Method 25 or 25A and Method 18*

* VOM emissions from selected emission units shall be measured by using both Method 25 and Method 18 to develop an adjusted factor that is applied to measurements conducted by Method 25A to account for the presence of compounds other than ethanol in the emissions.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The methodology that will be used to determine the operating rate during the period of testing, e.g., the rate of VOM introduced to the plant.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report from testing shall include as a minimum:

i. A summary of results.

ii. General Information.

iii. A detailed description of methodology for determination of the rate of VOM introduced in to processes during the period of testing, with supporting information.

iv. Detailed description of operating conditions of the emission unit(s) being tested, including:

A. Process information, e.g. alcohol production rate; and

B. Control equipment information, i.e. equipment condition and operating parameters during testing, e.g. scrubbant flow rate and pressure drop.

v. Data and calculations.

10. Instrumentation and Monitoring

a. The Permittee shall install, operate and maintain measurement and monitoring devices as follows:

i. These devices shall be operational at all times that the unit on which it is located is in operation.

ii. These devices shall be installed, calibrated and maintained at least according to vendor's specifications and instructions.

iii. The Permittee shall keep logs for the operation and maintenance of these devices.

iv. The Permittee shall manually record the information from continuous monitoring systems at least once every 30 minutes if automatic recoding devices are not in service for more than one hour.

b. The Permittee shall install, maintain and operate continuous monitors on the scrubbers for the following parameters:

i. Pressure drop

ii. Scrubbant flow rate (gallons/minute)

c. The Permittee shall install, maintain and operate continuous monitors on the condensers for the following parameters:

i. Outlet gas temperature and

ii. Inlet gas temperature

d. The Permittee shall equip each bypass vent in the ductwork to a control system with a device to identify release through the bypass vent.

11. Record Keeping

a. The Permittee shall maintain a file that contains the following which shall be kept current:

i. The Permittee shall keep an inventory of all equipment and/or components, by type, in VOM service required to be monitored by 40 CFR 60 subpart VV. In the case of flanges, fittings and connectors, the number of components may be determined by engineering estimate.

ii. The maximum VOM emissions from these components determined in accordance with SOCMI estimating guidance.

b. The Permittee shall keep the following operating records for the plant:

i. Alcohol production, gallons/month and gallons/day, monthly average.

ii. Amount and type of organic denaturant received, gallons/month

c. i. The VOM control systems, other than the loadout flare for the monitoring systems and measurements required by Condition 10 including:

A. Records of the data collected.

B. Records identifying periods of time other than routine calibration when required data was not collected.

ii. The Permittee shall maintain records for the flare of the analyses and calculations performed to verify with 40 CFR 60.18.

iii. The Permittee shall maintain the applicable records required by the NSPS for storage tanks controlled with floating roofs.

d. The Permittee shall maintain records for any period during which equipment in the alcohol plant was in operation when their air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

e. The Permittee shall maintain monthly records of the following items with supporting calculations, related to VOM emissions from the plant:

i. Periods of time when:

A. Significant processes vented to a control system were not in operation, or

B. The control system was not in service or operating properly

ii. The VOM (lbs) emitted from each significant processes during each month and year, based on stack test data, actual operation of control equipment and production rates.

iii. The VOM (lbs) emitted from storage and handling of alcohol, denaturant, denatured alcohol and each other volatile organic liquid stored at the plant, with supporting calculations. Emissions shall be calculated using the latest version of TANKS.

12. Retention and Availability of Records

a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. As

required by rule to claim material as a trade secret the Permittee shall mark such records as trade secret, safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, upon its request, they shall be accompanied by a copy of the claim letter and the statement of justification.

13. Reports and Notifications

a. With its Annual Emission Statement the Permittee shall report the annual emissions of VOM from the plant with supporting summary activity data and calculations.

b. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

14. Agency Addresses

a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811
Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code 254, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

15. Effectiveness of Permit

a. i. Pursuant to 40 CFR 52.21(r)(2), this permit shall become invalid if construction is not commenced within 18 months after this permit becomes affective, if construction is discontinued for a period of 18 months or more, or if construction is not completed with a reasonable period of time. The 18 month period may be extended by the Illinois EPA upon a satisfactory showing that an extension is justified. This condition supersedes Standard Condition 1.

ii. For this purpose, it is expected that the Permittee will commence and complete construction no later than the dates set forth in Attachment D. Unjustified delays in this schedule shall be considered a violation of this Permit.

b. i. For this purpose, further control of the existing alcohol plant and expansion of the alcohol plant shall be addressed separately. To "commence construction" of the expansion of the plant, the Permittee must commence construction on process equipment or control systems whose capacity facilitates the expansion of the plant. There after, until construction is complete, the Permittee shall submit annual reports to demonstrate that a continuous program of construction is underway, which reports shall describe the various new and replacement units that the Permittee has constructed in the last year and that intends to construct in the upcoming year.

ii. This permit shall become invalid as applied to further expansion of the alcohol plant if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time.

16. Other Requirements

This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State implementation Plan, as well as all other applicable local, state and federal requirements.

17. Authorization to Operate

Once construction of all new control systems is completed, the expanded alcohol plant as addressed by this permit may be operated pursuant to this permit until a CAAPP permit is issued for the source and this

permit will supersede Construction Permit No. 94100011 for previous modifications to the alcohol plant.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ATTACHMENT A

Alcohol Plant Process and Control Equipment

Description	**Control**
Sterile Tank	-
Dextrose Tank	-
Blend Tank	-
Propagators (4-12)	Wet Scrubbers
Fermenters (x-1 thru x-5, x-5A thru x-5d, x-6 thru x-14, A-1 thru A-6, B-1 thru B-6, C-2 thru C-6, and D-1 thru D-6)	Wet Scrubbers[1]
CO_2 Collection/Defoam Tank	Wet Scrubbers
Beer Wells (1 & 2)	Wet Scrubbers
MR Evaporators (1-6)	Wet Scrubber
Centrifuge	-
MR Feed, Product and Condensate Tanks	-
Distillation (Stills 1-6 and Grits 1-4)	Condensers and Wet Scrubbers
Reflux Stripper	Condensers and Wet Scrubbers
Fusel Oil Decanter and Tank	-
Recycle Tank	Wet Scrubber
Hi Wine Tanks (1-4 & 9)	Floating Roof or Condensers
Nitrogen Stripper	Wet Scrubber
Denaturant Tanks (D-5 & D-6)	Floating Roofs
Denatured Alcohol Storage Tanks (MST5, MST6 & MST7)	Floating Roofs
Loadout	Flare
Rust Inhibitor Tanks North and South	-
CO_2 Plant (Carbon and Dryer Columns)	-
CO_2 Stripper Column	Condenser

Notes:

1. The exhaust from the scrubber on the final stage is sent to the CO_2 plant at the complex.

ATTACHMENT B

List of Operations in Alcohol Plant with Negligible VOM Emissions

Description
Sterile Tank
Dextrose Tank
Blend Tank
Centrifuge
MR Feed, Product and Condensate Tanks
Fusel Oil Decanter and Tank
Rust Inhibitor Tanks North and South
CO_2 Plant (Carbon and Dryer Columns)

Attachment C

VOM Emission Limitations for Individual Emission Units (Vents)

Description	Limitations	
Fermentation/Distillation/Process	Lb/hr	Ton/yr
Propagators, Fermenters, and Beer Wells	25.0	109.5
Beer Stills Vent Scrubbers (1-4 East and West, 5 and 6)	12.0	52.6
CO_2 Stripper Condenser/Reflux Stripper Scrubber	2.0	8.8
Nitrogen Stripper Scrubber	10.0	43.8
Sharples	2.0	8.8
MR Evaporators	3.0	13.1
Truck and Rail Loadout	15.0	16.1
Total:	69.0	252.7
Process Tanks/Storage Tanks		
Fusel Oil Decanter	---	5.9
Fusel Oil Tank	---	0.1
Hi Wine Tanks (1,2,3,4 and 9)	---	4.2
Rust Inhibitor Tanks (North and South)	---	0.7
Denaturant Tanks (D-5 and D-6)	---	1.0
Denatured Alcohol Tanks (MST5, MST6)	---	1.0
Denatured Alcohol Tank (MST7)	---	0.5
Total:	---	13.4*
Misc. Units (Dextrose, Blend, Sterile Tank, etc.)*		13.8
Grand Total:		280.0

* This limitation accounts for emissions from miscellaneous units that have been individually addressed and are not subject to control requirements. For purposes of determining compliance with the VOM emission limitations in Condition 8(a), monthly VOM emissions from these units shall be presumed to be 1.15 tons.

Attachment D

Control System Installation Timeline

Control System	Start Date	Completion Date
Truck/Railcar Loadout Flare	June 1, 2003	May 31, 2004
Alcohol Storage Tanks (MST5 and MST6) Floating Roofs	June 1, 2003	May 31, 2004
Primary Fermentation CO_2 Collection and Scrubbing	July 1, 2003	Jan 31, 2005
Small Alcohol Storage Tanks ("High-Wine" Tanks) Floating Roofs	June 1, 2004	May 31, 2005
Alcohol Department MR Evaporator Scrubbing	*March 1, 2005	Aug. 31, 2005
Secondary Fermentation/Propagator CO_2 Collection and Scrubbing	*March 1, 2005	Aug. 31, 2005

* NOTE: The secondary fermentation CO_2 collection, scrubbing system and MR Evaporator scrubbing requires that the primary fermentation project be completed first.

KLS:00090052:psj

State Joint Construction and Operating Permit 99120082
Prevention of Significant Deterioration (PSD) Approval

CONSTRUCTION PERMIT --REVISED
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis, Mgr., Environmental Engineering Services
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99120082
I.D. No.: 115015AAE
Applicant's Designation: DRYER #7
Date Received: November 6, 2002
Subject: Wet Corn Mill Feed Dryer #7
Date Issued: December 27, 2002
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of feed Dryer #7 and associated control equipment as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a construction permit for a new feed dryer (Dryer #7) in the wet corn mill (mill) at its Decatur manufacturing complex. The dryer produces cattle feed from ADM by-products and the material that remains after the starch, oil and gluten are removed from corn. Emissions from the dryer would be controlled by a multi-stage control system, including cyclones, wet scrubbing, wet electrostatic precipitator (WESP) and a regenerative thermal oxidizer (RTO). Dryer #7 would allow ADM to reduce the load of the six existing

feed dryers, which is expected to reduce emissions from the dryers. The new dryer would only facilitate a significant increase in the throughput of the mill if other changes were made to increase the mills capacity.

2. The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.

3. The project is subject to PSD review for particulate matter (PM), volatile organic material (VOM), carbon monoxide (CO), and nitrogen oxide (NO_x) because feed Dryer #7 has the potential to emit significant amounts of PM, VOM, CO and NO_x, i.e., more than 15, 40, 100 and 40 tons/year respectively, and ADM has not previously obtained a PSD permit for the six feed dryers already in the wet corn mill. The permit would allow annual PM, VOM, CO and NO_x emissions of 26.3, 54, 132 and 72.7 tons respectively from feed Dryer #7. (NO_x figure includes contribution from the RTO burner).

4. After reviewing the materials submitted by ADM, the Illinois EPA has determined that the project, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT).

5. The Illinois EPA has determined that the project, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and a summary of the Illinois EPA=s review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

Standard Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

Best Available Control Technology

2a. i. Dryer #7 shall be equipped, operated, and maintained with a multi-stage control system consisting of cyclones, wet scrubbing,

wet ESP and regenerative thermal oxidation (RTO). The control system shall be operated and maintained in conformance with good air pollution control practices.

ii. The PM emission control system shall be designed, constructed, and maintained to achieve PM emission rate from Dryer #7 that is no more than 0.010 gr/dscf. For this purpose, PM shall be determined as filterable particulate matter, as measured by USEPA Method 5 (See Also Condition 5).

b. i. Dryer #7 shall be equipped, operated, and maintained with low NO_x natural gas-fired burner. The burners shall be operated and maintained in conformance with good air pollution control practices.

ii. The burners shall be designed, constructed, and maintained to achieve a NO_x emission rate from Dryer #7 that is no more than 0.08 lb per million Btu heat input from fuel.

c. The RTO system shall be designed, constructed, and maintained to comply with the following limits:

i. At least 90 percent destruction of CO by mass, (comparing the CO in the inlet and outlet of the system) or a CO emission rate from Dryer #7 that is no more than 100 PPM; and

ii. At least 95 percent destruction of VOM by mass (comparing the VOM in the inlet and outlet of the system) or a VOM emission rate from Dryer #7 that is no more than 10 PPM.

Condition 2 addresses Best Available Control Technology, for PM, NO_x, CI and VOM emissions as required by Section 165 of the Clean Air Act.

3. Limitations

a. Emissions of PM, SO_2, CO, VOM and NO_x from Dryer #7 shall not exceed the following limits:

i. PM - 6.0 lb/hour and 26.3 tons/year.

ii. NO_x, (including the contribution from the RTO burner) - 16.6 lb/hour and 72.7 tons/year.

iii. SO_2 - 9.0 lb/hour and 39.4 tons/year

iv. CO - 30 lb/hour and 132 tons/year

v. VOM - 12.3 lb/hour and 54 tons/year

b. This permit is issued based on Dryer #7 not being subject to PSD for SO_2 because emissions of SO_2 are less than the significant emission rate threshold.

c. This permit does not authorize changes to the mill that are unrelated to Dryer #7 that would increase the mill's capacity.

4. Good Operating Practices

The Permittee shall operate, maintain, and repair Dryer #7 and its control system in a manner assuring compliance with the requirements of applicable board rules and Conditions 2, 3, and 4 by implementing the following procedures.

a. Operating Procedures for Control System: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

b. Operating Procedures for Burner: Written operating practices shall be developed and maintained, including establishment of target levels for the following operating parameters for the low NO_x burner:

i. Furnace Temperature Operating Range;

ii. Combustion Air Fan Amperage; and

iii. Recirculated Air Damper Position and Secondary Air.

c. Inspections: Visual inspections of Dryer #7 and its air pollution control and monitoring equipment shall be conducted on at least a weekly basis.

d. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

e. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

i. Date of inspection, maintenance, and repair activities.

ii. Description of maintenance or repair activity if not routine preventative maintenance.

iii. Probable cause for requiring maintenance or repair if not routine or preventative.

These requirements and related monitoring, recordkeeping and reporting requirements in Conditions 6, 7 and 9 may be revised and retired by the Illinois EPA in the CAAPP Permit issued to the source.

5. Emission Testing Requirements

a. i. Within 180 days of startup of Dryer #7 the Permittee shall have PM, NO_x, SO_2, CO and VOM emissions and opacity from Dryer #7 and the destruction efficiency of the RTO system for CO and VOM measured at its expense by an approved testing service, during full load operation of the dryer and conditions which are representative of maximum emissions to verify compliance with the requirements of this permit.

ii. Emission measurements shall also be conducted upon written request from the Illinois EPA.

b. i. The following testing methods and procedures shall be used. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5*
Sulfur Dioxide (SO_2)	USEPA Method 6
Opacity	USEPA Method 9
Carbon Monoxide (CO)	USEPA Method 10
Nitrogen Oxides (NO_x)	USEPA Method 20
Volatile Organic Material (VOM)	USEPA Method 25A**

* Measurements shall also be taken and reported for the back half of the sampling train, to obtain additional measurements of condensable particulate matter.

** If the Permittee is complying by means of the concentration limit for VOM, rather than destruction

efficiency, VOM emissions shall be measured in accordance with USEPA's guidance for measurements of VOM emissions at feed dryers at the ethanol plants.

ii. Due to the high moisture levels in the exhaust from the feed dryers, USEPA particulate matter$_{10}$ (PM_{10}) test methods are not considered reliable and are not being required to measure PM_{10}.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The specific points at which samples will be taken for a pollutant if sampling will be conducted at the stack, or other point that includes the exhaust from other dryers, rather than after control units, and the approach being taken for showing compliance, e.g., all dryers will comply with a PM limit of 0.010 gr/scf.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA=s ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. These reports shall include as a minimum:

i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.

ii. A summary of results, e.g. PM, NO_x, and SO_2 emissions, lb/hour and gr/scf.

iii. Detailed description of operating conditions of the dryer, including:

A. Process information, e.g. feed composition, operating rate, and moisture content.

B. Control system operating parameters during testing.

iv. Data and calculations.

v. Conclusions.

6. Monitoring

a. i. The Permittee shall install, maintain and operate continuous monitors on the wet scrubber that supply continuous readings and store average hourly values for the following parameters:

A. Scrubbant flow rate (gallons/minute).

B. Pressure drop across the scrubber.

ii. The Permittee shall take samples of the following once per day.

A. Solids content of incoming scrubber makeup water.

B. Solids content of any recycled scrubber scrubbant.

b. The Permittee shall install, maintain and operate continuous monitors on the low NO_x burner(s) for the following parameters:

i. Firing Rate (cubic feet/hour of gas to the burner).

ii. Furnace Temperature.

iii. Combustion air fan amperage.

c. The Permittee shall install, maintain and operate continuous monitors on the wet ESP for the following parameters:

i. Secondary voltage and current.

d. The Permittee shall install, maintain and operate continuous monitors on the RTO for the following parameters:

i. Pressure differential across the RTO.

ii. Combustion chamber temperature.

7. Recordkeeping

a. The Permittee shall maintain the following operating records for Dryer #7. This data shall be recorded whenever a new measurement is taken or an item is changed, except as specified below:

i. Dryer throughput based on the daily grind rate and relative loading, firing rate (MBtu/hr) and feed moisture levels (input and output % moisture), recorded at least once per shift.

ii. Configuration of the control system, including bypass of any unit and significant changes in its usage of units.

iii. Desired values of the operating parameters of the control system.

iv. Quality of incoming new and recycled scrubbant(s).

v. Caustic level in scrubbant (PH).

vi. Based on preliminary testing the facility shall determine and keep records of the optimum furnace temperature operating range.

vii. Actual furnace operating temperature shall be monitored from the control room and recorded.

viii. I.D. fan amperage.

ix. Recirculated air damper position.

b. The Permittee shall maintain records of the following operating parameters for the emission control units. These parameters for which there is continuous monitoring (See Condition 6a) shall be manually recorded at least every two hours, if automatic measurement and recording device(s) are not in service for more than two hours. Other parameters shall be recorded at least every two hours.

i. Scrubbant valve position.

ii. For the low NO_x burner:

A. Firing rate based on percent valve opening and gas pressure.

B. Furnace temperature based on percent valve opening of gas pressure.

C. Volumetric flow rate of recirculated air and secondary air based on damper position.

iii. Scrubbant flow rate for the wet scrubber.

iv. Pressure drop across the scrubber tower.

v. Temperature drop across the waste heat evaporator.

vi. Secondary voltage and amperage of the WESP

vii. Gas valve position of the RTO burner

d. The Permittee shall keep records of all emission measurements conducted for Dryer #7 including:

i. Records of emission measurements conducted pursuant to Condition 6.

ii. Records of other measurements of emissions conducted as part of the evaluation of Dryer #7.

e. The Permittee shall maintain records for any period during which Dryer #7 was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

f. The Permittee shall keep emission records for Dryer #7 as follows:

i. PM emission rate, in lb/hour, determined for each configuration and condition of the dryers and their control systems, based on test data or other engineering estimates with supporting explanations and calculations. Until emission testing is conducted, this determination shall be based on design data.

ii. Number of hours operated at each emission rate identified above on a monthly basis, with explanation.

iii. Monthly emissions of PM, NO_x, CO, VOM and SO_2, determined as the summation of the product of the above records

iv. Annual emissions of PM, NO_x, CO, VOM and SO_2.

8. Records Retained

a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request. For this purpose, the Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source=s normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

9. Notification

a. The Permittee shall notify the Illinois EPA within 5 days of the initial startup of Dryer #7.

b. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA=s within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

10. Illinois EPA Addresses

Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811
Fax: 217/524-4710

A copy of all required reports and notifications, except the Annual Emission Report required by 35 IAC Part 254, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

11. Other Requirements

This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois= State implementation Plan, as well as all other applicable local, state and federal requirements.

This permit has been revised to include a regenerative thermal oxidation (RTO) system (preceded by a wet electrostatic precipitator) for control of CO and VOM emissions from Dryer #7.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 99120021
Prevention of Significant Deterioration (PSD) Approval

JOINT CONSTRUCTION AND OPERATING PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99120021
I.D. No.: 115015AAE
Applicant's Designation: VENTSCR 5&6
Date Received: December 8, 1999
Subject: Wet Corn Mill Feed Dryer 5&6 Scrubbers
Date Issued: May 26, 2000
Expiration Date: See Condition 2a
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of construction of Venturi scrubbers for feed dryers 5&6 and operation of feed dryers 5 & 6 and their control system, as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct and operate the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1a. Archer Daniels Midland (ADM) has requested a joint construction and operating permit for temporary operation of additional air pollution control equipment on feed dryers 5 and 6 in the wet corn mill (Mill) at its Decatur manufacturing complex. The dryers produce cattle feed from the material that remains after the starch, oil and gluten are removed

from corn. The additional control equipment is expected to reduce Particulate Matter (PM) emissions from the dryers.

b. The purpose of this project is to evaluate the design, operability and effectiveness a particular type of air pollution control equipment, i.e., Venturi scrubbers, to better control emissions from the various dryers in the wet corn mill through full scale set up and testing of a scrubber system on dryers 5&6.

c. Unless it is determined by issuance of a further PSD permit that the Venturi scrubbers, in conjunction with the overall control system on the dryers, would constitute Best Available Control Technology (BACT), the use of the Venturi scrubber will not be considered to be BACT after the temporary period of operation allowed by this permit, and the Permittee may be required to install other controls or remove the Venturi scrubber to provide BACT.

2. The ADM complex is located in Decatur Township in Macon county. The area is designated attainment for all pollutants.

3. The project is subject to PSD review for particulate matter because feed dryers 5&6 have the potential to emit significant amounts of Particulate Matter (PM), i.e., more than 15 tons/year, and ADM has not previously obtained a PSD permit for these dryers for the current levels of emissions.

4a. After reviewing the materials submitted by ADM, the Illinois EPA has determined that the project, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) as a temporary project utilize Best Available Control Technology (BACT).

b. Because this project is considered temporary, an air quality analysis was not required.

5. The Illinois EPA has determined that the project, as proposed, would comply with applicable Illinois Air Pollution Control Regulations and the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

Standard Conditions

1. Standard conditions for issuance of construction permits and for issuance of operating permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following conditions.

Best Available Control Technology

2a. This permit authorizes operation of feed dryers 5 and 6 with Venturi scrubbers in their control systems for a period of two years for the general purpose of evaluating Venturi scrubbing technology as a means to control particulate matter (PM) emissions from dryers in the corn wet mill.

b. Feed dryers 5 and 6 with Venturi scrubbers shall be operated and maintained in conformance with good air pollution practice to minimize emissions, consistent with the objective of evaluating Venturi scrubbing technology, including the following:

i. The Permittee shall maintain a written evaluation plan which identifies each configuration of the dryers and control system to be evaluated, the duration of operation required under such configuration, the nature of the information that is being sought, the type of data that will be collected, and the measures that will be taken to minimize emissions.

ii. The Permittee may bypass existing components of the dryers' control system in conjunction with evaluation of use of Venturi scrubbing, as set forth in the above plan. However, any such existing component shall only be permanently removed from the control system if specifically authorized by a separate construction permit issued by the Illinois EPA.

c. The control system on dryers 5 and 6 including the Venturi scrubbers shall be designed, constructed and operated to achieve a particulate matter emission rate that is no more than 0.015 gr/dscf except when evaluating worst-case configuration of the control system, which in total shall not exceed 1,000 hours.

Condition 2 addresses Best Available Control Technology, for PM emissions, as required by Section 165 of the Clean Air Act.

3a. Emissions of PM from feed dryers 5 & 6 shall not exceed 39.5 tons per year. Compliance with this limit shall be determined on a rolling 12 month basis; calculated monthly in accordance with Condition 7f.

b. Dryer 5 and 6 with Venturi scrubber shall be designed and operated to comply with a target PM emission rate of 9.0 lb/hr. This limit is

based on achievement of an emission rate that is no more than 0.015 gr/dscf and the maximum exhaust flow rate of the dryers as provided in the permit application.

4. The Permittee shall operate, maintain, and repair feed dryers 5 and 6 and their control systems in a manner assuring compliance with the requirements in applicable Board rules and condition 2,3, and 4, by implementing the following procedures.

   a. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

   b. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

   c. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

   d. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

      i. Date of inspection, maintenance, and repair activities.

      ii. Description of maintenance or repair activity if not routine preventative maintenance.

      iii. Probable cause for requiring maintenance or repair if not routine or preventative.

5. Testing Requirements

   a. i. Within 180 days of startup of the dryers with the dryers with the Venturi scrubbers, the Permittee shall have PM emissions from the dryers measured at it's expense by an approved testing service, during conditions which are representative of maximum emissions to verify compliance with the requirements of this permit.

      ii. PM emission measurements shall also be conducted upon written request from the Illinois EPA.

   b. i. The following methods and procedures shall be used for PM measurements. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
Opacity	USEPA Method 9

Measurements shall also be taken and reported for the back half of the sampling drain, to obtain additional measurements of condensable particulate matter.

ii. Due to the high moisture levels in the exhaust from the feed dryers, USEPA particulate matter$_{10}$ (PM_{10}) test methods are not considered reliable and are not being required to measure PM_{10}.

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 30 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are

compiled and finalized. These reports shall include as a minimum:

i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.

ii. A summary of results, e.g. particulate matter emissions, lb/hour, lb/ton dried feed, and gr/scf

iii. Detailed description of operating conditions of the dryers, including:

A. Process information, e.g. feed composition, operating rate, and moisture content

B. Control system operating parameters during testing.

iv. Data and calculations.

v. Conclusions.

6. Monitoring Requirements

a. The Permittee shall install, maintain and operate continuous monitors on the Venturi scrubbers for the following parameters:

i. Pressure drop across the Venturi throat

ii. Scrubbant flow rate (gallons/minute)

iii. Gas flow rate through the control system (ACFM)

b. The Permittee shall take samples of the following once per day when the Venturi scrubber is operated.

i. Solids content of incoming makeup water

ii. Solids content of any recycled scrubbant

7. Recordkeeping

a. The Permittee shall maintain the following operating records for feed dryer 5 and 6 with Venturi scrubbers. This data shall be recorded whenever a new measurement is taken or an item is changed, except as specified below:

i. Dryers 5 and 6 throughput based on the daily grind rate and the relative loading of the dryers, firing rate (MBtu/hr) and feed moisture levels (input and output %H2O), recorded at least once per shift

ii. Configuration of the control system, including bypass of any unit and significant changes in its usage of units

iii. Desired values of the operating parameters of the control system, including the setting for pressure drop across the variable throat Venturi

iv. Quality of incoming new and recycled scrubbant(s)

v. Caustic level in scrubbant (PH)

b. The Permittee shall maintain records of the following operating parameters for the control system. Parameters for which there is continuous monitoring (see Condition 6) shall be manually recorded at least every hour, if automatic measurement and recording device(s) are not in service for more than two hours. Other parameters shall be recorded at least every hour.

i. Pressure drop across the Venturi scrubbers

ii. Gas flow rate through the control system (ascfm)

iii. Scrubbant flow rates for the Venturi scrubbers (gallons/minute)

iv. Makeup water flow rates for the Venturi scrubbers (gallons/minute)

c. The Permittee shall maintain records of the following operating parameters for components in the control system other than the Venturi scrubbers.

i. Pressure drop across the packed beds

ii. Temperature drop across the waste heat evaporator

iii. Scrubant flow rate for the primary scrubbers

d. The Permittee shall keep records of all emission measurements conducted for the dryers with Venturi scrubbers including:

i. Records of emission measurements conducted pursuant to Condition 6.

ii. Records of other measurements of emissions conducted as part of the evaluation of the Venturi scrubbers, including measurements conducted for pollutants other than PM.

e. The Permittee shall maintain records for any period during which dryer 5 or 6 was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a PM control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

f. The Permittee shall keep records of the particulate matter (PM) emissions of the feed dryers as follows:

i. PM emission rates in lb/hour, determined for each configuration and condition of the dryers and their control systems, based on test data or other engineering estimates with supporting explanations and calculations until emission testing is conducted, this determination shall be based on design data.

ii. Number of hours operated at each emission rate identified above on a monthly basis, with explanation;

iii. Monthly PM emissions, determined as the summation of the product of the above records

iv. Annual PM emissions.

8a. The Permittee shall retain all records required by this permit at the source for at least three years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request. For this purpose, the Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working

hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

9a. The Permittee shall notify the Illinois EPA within 5 days of the initial startup of dryer 5 and 6 with Venturi scrubbers.

b. On a quarterly basis, the Permittee shall submit a written report summarizing experience with the Venturi scrubber, including the range of particulate matter emissions achieved under different configurations for the dryers, the Venturi scrubber, and the rest of the control system, with supporting information. These reports shall include a summary of the records kept pursuant to condition 7(f). These reports shall be submitted within 45 days of the end of the calendar quarter.

c. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

10a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811
Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

11. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State implementation Plan, as well as all other applicable local, state and federal requirements.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 97070075

JOINT CONSTRUCTION AND OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97070075
I.D. No.: 115015AAE
Applicant's Designation: CORN PROCES
Date Received: May 20, 2002
Subject: Corn System Dust Collection Baghouse
Date Issued: May 31, 2002
Operating Permit Expiration Date: May 31, 2007
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of two baghouses as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based upon adding two baghouses to the corn conveying system, without any increase in emissions of particulate matter into the atmosphere.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

This permit has been revised to allow the Permittee more time to construct the second baghouse.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

ADM Decatur East Plant Permits

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in theses attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland
Attn.: Shelley Huskey
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03120045 I.D. No.: 115015AAE
Applicant's Designation: Date Received: December 22, 2003
Operation of: Vacuum Assisted Desolventizer/Cooler
Date Issued: March 2, 2004
Source Location: 4666 Faries Parkway, Decatur

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emissions source(s) and/or air pollution control equipment consisting of a vacuum assisted desolventizer/cooler in the Specialty Ingredient Plant(East Soybean Plant)as described in the above-referenced application. This Permit is subject to standard conditions attacked hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Description

The vacuum assisted desolventizer/cooler, VAD, is an emission reduction project agreed to by ADM and the United States Department of Justice as part of a Consent Decree, CD IL, No. 03-CV-2066 (Consent Decree). The VAD will assist in recovering more hexane from the Specialty Ingredients Plant prior to final control by the existing mineral oil system. This is the first of three VADs that may be constructed and will be installed on the East White Flake line.

1.2 List of Emission Units and Pollution Control Equipment

Process Control Equipment
Vacuum Assisted Desolventizer/Cooler

1.3 Applicability Provisions and Applicable Regulations

a. The Vacuum Assisted Desolventizer/Cooler is an "affected desolventizer" for the purpose of these unit-specific conditions.

b. The affected desolventizer is subject to applicable provision of the Consent Decree.

c. The Specialty Ingredients Plant with affected desolventizer is subject to 40 CFR 63 Subpart GGGG (Vegetable Oil Production NESHAP) and shall comply with all applicable provisions thereof.

d. In addition to the conditions of this permit, the Specialty Ingredients Plant with affected desolventizer is subject to the limitations of the existing PSD permit for Specialty Ingredients Plant, Permit No. 96100019.

1.4 Non-Applicability of Regulations of Concern

None

1.5 Operational and Production Limits and Work Practices

a. After start-up, the Permittee shall operate the VAD-equipped white flake line at representative operating conditions, in order to determine whether it is capable of meeting the performance criteria in the Decatur East Control Technology Plan (CTP) that accompanies the Consent Decree as follows:

i. Residual VOM shall be ≤400 ppm by weight in white flakes exiting the VAD.

ii. The protein dispersibility index shall be ≥55 and ≤63 for "60" white flakes and ≥80 and ≤90 for "90" white flakes.

iii. The moisture content shall be ≤9%.

iv. The fines shall be ≤30%, <20 Mesh.

b. The Permittee shall follow good operating practices for the VAD including periodic inspection, routine maintenance and prompt repair of defects.

c. This Permit does not authorize an increase in production of the Specialty Ingredients Plant.

1.6 Emission Limitations

a. This permit is issued based on a decrease in VOM emissions from the Special Ingredients Plant as a result of the installation of the affected desolventizer.

b. As required by the Consent Decree the Specialty Ingredient Plant shall begin complying with final VOC Solvent Loss Ratio (SLR) following completion of the required emission reduction project for the plant, as required by the Consent Decree.

1.7 Emissions Testing Requirements

None

1.8 Sampling and Ananlysis Requirements

a. The Permittee shall sample and keep records of the following parameters for the white flake from the affected desolventizer on a daily basis:

i. Residual VOM

ii. Protein Dispersibility Index

iii. Percent Moisture Content

iv. Fines Concentration

b. The Permittee shall determine operating parameters using the following test methods:

i. AOCS Ba 14-87 - Total Hexane Content in Extracted Meals

ii. AOCS Ba 10-65 - Protein Dispersibilty Index

iii. AOCS Ba 2a-38 - Moisture and Volatile Matter (vacuum oven)

iv. ADM Cp-1d-63 - Screen Test Mechanical

1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected desolventizer or the Specialty Ingredient Plant:

a. Records for periodic inspection of the affected desolventizer with date, individual performing the inspection, and nature of inspection.

b. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

c. The Permittee shall maintain the records required by 40 C.F.R. Part 63, Subpart GGGG on solvent loss and quantity of oilseed processed.

d. After the date of proposal of final VOC SLR limits, ADM shall maintain the records required by 40 C.F.R. Part 63, Subpart GGG for any malfunction period.

e. The Permittee shall maintain the following solvent loss records for the Specialty Ingredients Plant:

i. Total Crush (tons/month and tons/year)

ii. Total Solvent Loss (gallons/month and gallons/year)

iii. Malfunction Period Solvent Loss (gallons/month and gallons/year)

iv. Adjusted[a] Solvent Loss (gallons/month and gallons/year)

v. SLR[b] (gallons/ton 12 month rolling basis)

[a] – Adjusted solvent loss is equal to total solvent loss minus malfunction period loss.

[b] – Solvent loss ration is equal to 12-month rolling adjusted solvent loss divided by 12 month rolling total crush.

1.10 Reporting Requirements

a. ADM shall submit a report to the EPA and the IEPA on the evaluation of the VADs-equipped white flake line as required by the Consent Decree. The report shall include a determination whether the VAD-equipped white flake line is capable of meeting the performance criteria in the Decatur East CTP. Specifically, the report shall include solvent loss and crush data, monitoring data, and all assumptions and calculations used to estimate the emission reduction benefit of the VAD technology.

b. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected desolventizer with the permit requirements as follows, reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

i. During the initial year of operation, noncompliance shall be reported on a quarterly basis.

ii. Thereafter, compliance shall be reported in 30 days.

1.11 Operational Flexibility

a. The Permittee may apply the provisions of 40 C.F.R. Part 63, Subpart GGGG pertaining to malfunction periods only when the following conditions are met. At all other times, the Permittee must include all solvent losses when determining compliance with its SLR limits.

i. The malfunction results in total plant shutdown. For purposes of this Permit, a "total plant shutdown: means a shutdown of the solvent extraction system.

ii. Cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a 12 month rolling period.

b. During a malfunction period, the Permittee shall comply with the startup, shutdown and malfunction (SSM) plan as required under 40 CFR 63 Subpart GGGG for the plant. The solvent loss corresponding to a malfunction period will be calculated as the difference in the total solvent inventories for the day before the malfunction period began and the day the plant resumes normal operation.

1.12 Compliance Procedures

a. Compliance with the final Solvent Loss Ratio limit for the plant shall be determined in accordance with 40 C.F.R. Part 63, Subpart GGGG, with the following exceptions, as required by the Consent Decree:

i. Provisions pertaining to HAP content shall not apply

ii. Monitoring and recordkeeping of solvent losses at each plant shall be conducted daily

iii. Solvent losses and quantities of oilseed processed during startup and shutdown periods shall not be excluded in determining solvent losses

iv. Records shall be kept that show total solvent losses, solvent losses during malfunction periods, and adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve-month rolling basis.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co. - East Plant
Attn: Christopher D. Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03080057 I.D. No.: 115015AAE
Applicant's Designation: Date Received: July 19, 2004
Subject: Anaerobic Wastewater Treatment System (East Plant)
Date Issued: July 27, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new anaerobic wastewater treatment system consisting of several anaerobic digesters (vessels) with covers, a biological scrubber, two compressors, a gas dryer and a flare as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Anaerobic Wastewater Treatment System
Control: Scrubber and Flare

1.1.1 Description

The Anaerobic Wastewater Treatment System will be located at ADM's East Plant and will treat the nutrient-rich wastewater stream from the Soy Isolate process. The system will consist of several digesters vessels each with a cover, which will capture biogas. The biogas, which is mostly methane, is formed by active "fast rate" anaerobic digestion of solids. The digester system will be vapor tight insuring that all off gases are vented through the scrubber system.

The scrubbed biogas will be combusted either in a flare or in existing fuel combustion units throughout the Decatur complex. The preferred disposition of the biogas is to the existing fuel combustion units since this will reduce the amount of natural gas fired in these units. ADM has stated that the project is being pursued because of the resulting savings in fuel costs at the East Plant. However, the system is being designed to allow biogas to

be flared to address outages of the fuel distribution system. This permit allows approximately 500 million cubic feet of biogas on an annual bases, to be fired.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Anaerobic Wastewater Treatment System	Several Anaerobic Digesters (Vessels) With Covers, Compressors, Gas Dryer	Biological Scrubber and Either a Flare or Existing Fuel Combustion Units at Decatur Complex

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected wastewater treatment system" for the purpose of these unit-specific conditions, is the wastewater treatment system described in Conditions 1.1.1 and 1.1.2.

b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm [35 IAC 214.301].

1.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on this project not being a major modification pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). This determination is made based on information provided in the application by the Permittee. The limits of this permit are intended to ensure that this project does not constitute a major modification pursuant to PSD.

For this purpose, the Permittee has shown that the proposed Anaerobic Wastewater Treatment System is a separate and distinct project from the Anaerobic Lagoons (Construction Permit 03090034), which are being constructed to improve the operating efficiency of its existing wastewater plant. The Permittee has also shown that there will be a negligible increase in emissions of PSD pollutants attributable to the consumption of biogas in existing combustion units, since the combustion of biogas is comparable to combustion of natural gas. In addition, there will be at most a negligible increase in emissions of the fuel combustion units throughout the Decatur complex above baseline actual emissions as a result of this project.

1.1.5 Operational and Production Limits and Work Practices

a. At all times, the Permittee shall, to the extent practicable, maintain and operate the affected wastewater treatment system, in accordance with written operating procedures that provide for good air pollution control practice for minimizing emissions. At a minimum, these practices shall include:

i. The following provision for operation of the covers;

The digester system shall be vapor tight insuring that all off gases are vented through the control system.

ii. The following provisions for operation of the scrubber:

The scrubber shall be operated within the acceptable operating parameters as determined by the stack test required by Condition 1.1.7.

iii. The following provisions for operation of the flare:

A. The flare shall be operated with a flame present at all times.

B. The presence of a flare pilot flame shall be monitored using a thermocouple or other comparable device to detect the presence of a flame.

C. If the flame goes out, the flow of biogas to the flare shall be discontinued until the pilot flame or the main flame is restored.

iv. Provisions for periodic inspection of the covers, scrubber, and flare.

b. If the biogas flow rate to the flare exceeds 525.6 million cubic feet/year, the Permittee shall submit a report to the Illinois EPA identifying the maximum amount of biogas that will be flared and demonstrating that it can comply with Condition 1.1.6 when flaring the maximum amount of biogas.

1.1.6 Emission Limitations

a. The H_2S content of the treated biogas following the scrubber (prior to combustion) shall not exceed 200 ppm.

b. i. Total combined emissions from the affected wastewater treatment system shall not exceed the following limits:

Pollutant	(Lb/mmBtu)	Emissions (Tons/Mo)	(Tons/Yr)
NO_x	0.041	----	8.1
CO	0.046	----	9.0
SO_2	----	1.0	9.2

iii. This permit is issued based upon negligible emissions of particulate matter and volatile organic material from the affected wastewater treatment system. For this purpose, emissions of each pollutant shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 tons/yr.

iv. This permit is issued based on a negligible increase in emissions of NO_x, CO, VOM, PM/PM_{10}, and SO_2 associated with burning properly scrubbed biogas in fuel combustion devices throughout the Decatur complex.

c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

a. Within 180 days of initial startup, the reduced sulfur content in the biogas before and after the scrubber shall be measured during conditions which are representative of maximum operating conditions in terms of influent load to the control equipment.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Reduced Sulfur Compounds	USEPA Method 15A

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Compliance Section of the Division of Air Pollution Control for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

vi. Any proposed use of an alternative test method, such as use of an H_2S monitoring system with detailed justification. (Note: Use of an alternative method is subject to approval by the Illinois EPA.)

vii. The format and content of the Source Test Report.

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and

expected time of testing shall be submitted a minimum of five working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results.

ii. General information.

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption, heat content of biogas;

B. Control equipment information, i.e., scrubbing agent, equipment condition and operating parameters during testing; and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

vi. An explanation of any discrepancies among individual tests or anomalous data.

f. Two copies of these reports and other required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

1.1.8 Monitoring Requirements

The Permittee shall monitor and continuously record the scrubbant flow rate for the scrubber (gallons/minute) to ensure proper operation of the scrubber.

1.1.9 Recordkeeping Requirements

a. The Permittee shall maintain an operating log for the control system, that at minimum, identifies periods of time when the system is not in operation, maintenance and repair activities, and actual scrubbant addition rates.

b. The Permittee shall maintain records of the following items for the affected wastewater treatment system:

i. Biogas flow rate to the control system (mmscf/month and mmscf/year);

ii. Flow rate of the make up water in the scrubber;

iii. Hours of operation for the scrubber (hours/month and hours/year);

iv. Disposition of biogas to the flare, and to other fuel combustion devices throughout the Decatur complex (mmscf on a monthly basis); and

v. NO_x, CO, VOM, PM/PM_{10}, H_2S and SO_2 emissions (tons/month and tons/year).

1.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of deviations of the affected wastewater treatment system with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions from the affected wastewater treatment system in excess of the limits specified in Condition 1.1.6 within 30 days of such occurrence.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

1.1.12 Compliance Procedures

a. Compliance with the NO_x and CO emission limitations specified in Condition 1.1.6 shall be based on the recordkeeping requirements of Condition 1.1.9, the following formula, and appropriate emission factors:

i. NO_x Emissions = (factor, lbs NO_x/mmBtu) x (biogas flow rate to flare, mmscf) x (heat content, mmBtu/mmscf)

ii. CO Emissions = (factor, lbs CO/mmBtu) x (biogas flow rate to flare, mmscf) x (heat content, mmBtu/mmscf)

b. Compliance with the SO_2 emission limitations from the flare specified in Conditions 1.1.3(b), 1.1.6(b)(i) and (ii) shall be based on the recordkeeping requirements of Condition 1.1.9 and an appropriate emission factor developed from the stack test required by Condition 1.1.7.

2. Operation of the affected wastewater treatment system is allowed for a period of 2 years under this construction permit so as to allow time to perform stack testing.

It should be noted that this permit has been revised to change testing methodology (See 1.1.7(a)), to change the recordkeeping requirements (See 1.1.9(b)(ii)), and to clarify the design of the digester system (See 1.1.1 and 1.1.5(a)(i)).

If you have any questions on this, please call Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:psj

cc: Region 3

State Construction Permit 03010045

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Shelley Huskey
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03010045 I.D. No.: 115015AAE
Applicant's Designation: Date Received: January 24, 2003
Subject: Bin Vents
Date Issued: March 4, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of two bin vents on existing storage tanks as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the bin vents in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on no increase of emissions from the bin vents because it will reduce dust load and enhance product recovery.

3. The Permittee may operate the bin vents under this construction permit until its CAAPP permit is issued.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Construction Permit 02090063

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02090063 I.D. No.: 115015AAE
Applicant's Designation: PERVAPORATOR
Date Received: September 27, 2002
Subject: Pervaporation System
Date Issued: December 30, 2002
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a pervaporation unit and associated equipment as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit is issued based on negligible Emissions of VOM from the affected pervaporation system, for the purpose of this permit VOM emissions shall not exceed 15 lb/year.

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

2. The Permittee is allowed to operate the pervaporation system under this construction permit until final action is taken on their CAAPP permit.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 02010066

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02010066
Applicant's Designation:
Subject: Baghouses for TVP Dryers
Date Issued: February 15, 2002
Date: February 15, 2007
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: January 29, 2002

Operating Permit Expiration

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of new baghouses for TVP dryers 3 and 4 and increase the size of existing baghouses for TVP dryers 1 and 6 as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is based on the addition and expansion of control units to the TVP plant in Decatur and will not result in an emission increase.

2. At all times, the Permittee shall maintain and operate the TVP dryers, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

State Construction Permit 00110064

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00110064 I.D. No.: 1150115AAE
Applicant's Designation: TVP BGHSES
Date Received: November 20, 2000
Subject: Fabric Filters
Date Issued: December 11, 2000
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of housekeeping dust control system, TVP Line 1 dryer baghouse and TVP Line 6 dryer as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is based on the addition of control units to the TVP plant in Decatur and will not result in an emission increase.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 00110013

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company (ADM)
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00110013 I.D. No.: 115015AAE
Applicant's Designation: EXPELLER CONDENSER
Date Received: November 6, 2000
Subject: Corn Germ Expelling Oil Mist Condenser
Date Issued: December 13, 2000
Operating Permit Expiration Date: December 13, 2005
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a modification to the corn germ expelling oil mist condenser as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is based on an increase in the portion of the expeller exhaust stream that goes through the oil mist condenser from 25% to 90% resulting in a decrease in particulate matter emissions from the corn germ expelling process.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 00090009

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company (ADM)
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00090009
I.D. No.: 115015AAE
Applicant's Designation: FLAKETANKF
Date Received: September 5, 2000
Subject: Isolate II Flake Tank Bin Vent Filter
Date Issued: November 28, 2000
Operating Permit Expiration Date: November 28, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of the Isolate II flake tank bin vent filter as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is based on the replacement of an existing filter for the bin vent on the Isolate II flake tank and will not result in an increase in emissions.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 99040066

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniel Midland Company (ADM)
Attn: Michelle L. Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99040066
I.D. No.: 115015AAE
Applicant's Designation: FLAKING BGHSE
Date Received: April 26, 1999
Subject: Flaking Aspiration Baghouse
Date Issued: May 26, 1999
Operating Permit Expiration Date: May 26, 2004
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a flaking aspiration baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit for a replacement baghouse is granted based on no increase in emissions for the flaking aspiration process as currently permitted in permit number 72110962.

3. The Permittee shall operate, maintain, and repair the flaking aspiration baghouse using the operating, inspection, repair, and recordkeeping procedures as set forth in permit number 72110962.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 98120035

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Christopher R. Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98120035
I.D. No.: 115015AAE
Applicant's Designation: ISO1FILTER
Date Received: December 11, 1998
Subject: Isolate 1 Finished Product Receiver Filter
Date Issued: February 24, 1999
Operating Permit Expiration Date: February 24, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of OES 905 bulk protein transfer baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission unit(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based upon the replacement of the existing baghouse with a new OES 905 bulk protein transfer baghouse of the isolated soy protein plant I without any increase in emissions of particulate matter to the atmosphere. The existing equipment is covered by a separate operating permit, 87020012.

3. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.

Please note that the permit for the above equipment is being issued as a Joint Construction and Operating Permit. To ensure that all equipment is incorporated into the CAAPP permit upon review by the Illinois EPA, the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Also note that the Illinois EPA has not incorporated the operation of this equipment into the existing operating permit. All equipment and operations will be permitted in a single permit upon issuance of the CAAPP permit.

If you have any questions on this, please call Bill Marr at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:WDM:psj

cc: Region 3

State Joint Construction and Operating Permit 98120034

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle L. Bublitz, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98120034 I.D. No.: 115015AAE
Applicant's Designation: Date Received: March 2, 1999
Subject: Secondary Soybean Dehulling System Baghouse
Date Issued: March 23, 1999 Operating Permit Expiration Date: March 23, 2004
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of the secondary soybean dehulling system improvement and the secondary soybean dehulling system baghouse (OES DW8) as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.1 Unit OES DW8 Secondary Soybean Dehulling System with Two Cyclones Control Baghouse

1.1.1 Description

The secondary soybean dehulling system with two cyclones is used for soybean dehulling. The particulate matter (PM) emissions from the secondary soybean dehulling system with two cyclones is controlled by a baghouse.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
OES DW8	Secondary Soybean Dehulling System with Two Cyclones	Baghouse

1.1.3 Applicability Provisions and Applicable Regulations

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process

emission units, for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates determined by using the equation [35 IAC 212.321]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and

E = Allowable emission rate; and,

For process weight rates up to 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

1.1.4 Non-Applicability of Regulations of Concern

N/A

1.1.5 Operational and Production Limits and Work Practices

a. Operation of the emission unit(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

b. The Permittee shall follow good operating practices for the baghouse and associated air pollution control equipment, including periodic inspection, routine maintenance, and prompt repair of defects, so as to address compliance with the PM emission limits in Conditions 1.1.3(a), 1.1.6(a), and 1.1.6(b) and the opacity emission limits in Condition 1.1.3(b).

1.1.6 Emission Limitations

a. The exhaust flow rate and PM loading of the secondary soybean dehulling system (OES DW8), as determined at the baghouse exhaust, shall not exceed 50,000 scfm and 0.007 gr/scf.

b. Emissions of PM from the secondary soybean dehulling system with two cyclones controlled by baghouse (OES DW8) shall not exceed 3.0 lb/hour and 13.2 tons/year. These limits are based on the maximum emission rate and the maximum hours of operation (8,760 hours/year) as indicated in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

c. This condition is based on representations of maximum operation and maximum actual emission rates made in the permit application. As a consequence of the above limitations, this permit is issued based on the construction not constituting a new major source or major modification subject to Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

1.1.7 Testing Requirements

Upon reasonable request by the Illinois EPA, the Permittee shall measure the exhaust flow rate through the baghouse and the PM loading from the baghouse, so as to address compliance with the PM emission limits in Conditions 1.1.3(a), 1.1.6(a), and 1.1.6(b). The Permittee shall retain a copy of any such test and promptly submit the results to the Illinois EPA within 30 days.

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

a. The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 1.1.5, 1.1.6, and 1.1.7:

i. Records addressing use of good operating practices for the baghouse and associated air pollution control equipment:

A. Records for periodic inspection of the baghouse with date, individual performing the inspection, nature of inspection, and results of emission testing, if any were made;

B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair; and

C. Records for changes to duct work and changes to fans.

ii. Operating hours (hours/month and hours/year); and

iii. Monthly and annual aggregate PM emissions, based on the compliance procedures in Condition 1.1.12(c), with supporting calculations.

b. These records shall be retained for three years and shall be available for inspection and copying by the Illinois EPA.

1.1.10 Reporting Requirements

a. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing, or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address, unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 1.1.9 and the formula listed below:

a. Compliance with the PM emission limits in Conditions 1.1.3(a), 1.1.6(a), and 1.1.6(b) is addressed by proper operation of a baghouse, the work practice requirements in Condition 1.1.5(b), and the testing requirements in Condition 1.1.7.

b. Compliance with the opacity emission limits in Condition 1.1.3(b) is addressed by proper operation of a baghouse and the work practice requirements in Condition 1.1.5(b).

c. Compliance with the PM emission limits in Condition 1.1.6(b) shall be based on the recordkeeping requirements in Condition 1.1.9 and the formula listed below:

PM Emissions (ton) = (0.007 gr/scf) x (50,000 scf/min) x (60 min/hr) x (lb/7000 gr) x (ton/2000 lb) x (operating hours, hr)

Please note that the permit for the above equipment is being issued as a Joint Construction and Operating Permit. To ensure that all equipment is incorporated into the CAAPP permit upon review by the Illinois EPA, the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Also note that the Illinois EPA has not incorporated the operation of this equipment into the existing operating permit. All equipment and operations will be permitted in a single permit upon issuance of the CAAPP permit.

If you have any questions on this, please call Bill Marr at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:WDM:psj

cc: Region 3

State Joint Construction and Operating Permit 98110073

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98110073
I.D. No.: 115015AAE
Applicant's Designation: TVP GRINDERS
Date Received: November 23, 1998
Subject: TVP Raw Material Grinding
Date Issued: February 11, 1999
Operating Permit Expiration Date: December 31, 2003
Location: Decatur East Plant, 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of two texturized vegetable protein (TVP) grinding systems, each with fabric filters, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Operation and particulate matter emissions from each TVP grinding system shall not exceed the following limits:

		Particulate Matter Emissions	
Exhaust Flow Rate	Exhaust Loading (gr/cfm)	Hourly (Lb/Hr)	Annual (Ton/Yr)
1,500	0.01	0.13	0.57

If you have any questions on this, please call Christopher Romaine at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:CRR:jar

cc: Region 3

State Construction Permit 96100019
Prevention of Significant Deterioration (PSD)

CONSTRUCTION PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 96100019 I.D. No.: 115015AAE
Applicant's Designation: Date Received: April 26, 1999
Subject: Specialty Soybean Processes - Decatur East Plant
Date Issued: May 25, 1999
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of new and modified equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a permit to increase the throughput of its specialty soybean process plant (Plant), by increasing material feed rates and hours of operation for existing equipment and by constructing an additional flash desolventizing unit and associated cooler, an additional Soy Protein Concentrate Facility (SPC III), and additional flake grind capacity. This plant produces a variety of specialty products from soybean meal after the soy oil has been separated and does not produce animal feed as a byproduct from oil extraction like most soybean plants.

2. The source is located in Decatur Township in Macon county. The area is currently designated as attainment for all pollutants.

3a. The proposed project has the potential to increase Volatile Organic Material (VOM) emissions by as much as 3,798 tons per year assuming all solvent is lost as emissions, as further described in the attached Tables A and B. The project is therefore subject to PSD review as a major modification to an existing source for VOM emissions, emitting more than 40 tons per year.

b. The proposed project will not result in a significant net increase in particulate matter emissions, due to improvements in control of particulate emissions elsewhere at this grain processing complex, as explained in Table C. The project is therefore not subject to PSD review for particulate matter.

4a. After reviewing the materials submitted by ADM, Illinois EPA has determined that the project will (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.

b. Notwithstanding the Illinois EPA's determination of BACT, the plant will be subject to Maximum Achievable Control Technology (MACT) for hexane when USEPA adopts standards pursuant to Section 112(d) for existing vegetable oil production facilities.

5. The Illinois EPA has determined that the proposed project complies with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA’s formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing approval to construct the proposed project subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by the following special conditions.

2a. VOM consumption, i.e., hexane consumption, at the modified Decatur East Soybean Specialty Plant shall not exceed 10.4 pounds per ton of soybeans processed. Compliance with this limit shall be determined

from a 180 day rolling average of operating records on a daily basis, following the initial shakedown period.

(Note: Consumption of VOM by the Soybean Plant is greater than emissions of VOM to the extent that VOM is retained in product and waste, rather than lost to the atmosphere. The application shows minimum retention of 0.4 pound VOM per ton of soybeans processed, so that the above limit is equivalent to VOM emissions of no more than 10.0 pound per ton.)

b. The VOM control system on the main vent for the Soybean Specialty Extraction Facility shall consist of a condenser and mineral oil scrubber operated in conformance with good air pollution control practices, including:

i. The control system shall be operated to control VOM emissions from the soybean oil extractor, desolventizing systems, vegetable oil stripping system, wastewater stripping system and mineral oil stripping system at all times when the affected process equipment is in operation.

ii. The control system's packed-bed scrubber shall be operated with "lean" mineral oil scrubbant from which hexane has been effectively removed in the mineral oil stripper by heating the mineral oil to at least 200□F.

iii. The control system shall be operated to comply with the following requirements except during equipment startup and shutdown:

A. A maximum gas outlet temperature for the condenser (inlet temperature to the scrubber) of 95□F or no more than 10□F above the ambient temperature, whichever is greater;

B. A minimum mineral oil flow rate of 16 gallons per minute (This is equivalent to a design minimum flow rate of 1 gallon per 10 cubic feet);

C. A maximum mineral oil inlet temperature for the scrubber of 95□F or no more than 10□F above the ambient temperature, whichever is greater;

D. A scrubber pressure drop within the range established for normal operation; and

E. A maximum hexane concentration in the main vent exhaust of 30% of the Lower Explosion Limit (LEL). The LEL for hexane in air is 12,000 ppm. 30% of the LEL is equivalent to VOM emissions of 4.6 lb/hour, at a nominal exhaust rate of 100 cfm.

iv. The control system shall be operated to reasonably minimize emissions during equipment startup and shutdown, including thorough purging of process equipment to the operating control system prior to opening the process equipment for routine maintenance or repair.

3a. VOM consumption, i.e., ethanol consumption, at the modified Decatur East Protein Concentrate Facility shall not exceed 24.0 pounds per ton of flake processed. Compliance with this limit shall be determined from a 180 day rolling average of operating records on a daily basis, following the initial shakedown period.

(Note: Consumption of VOM by the Protein Concentrate Facility is greater than emissions of VOM to the extent that VOM is retained, both physically and chemically, in product and waste rather than lost to the atmosphere. The application shows minimum chemical retention by hydrogen bonding of 11.2 pound VOM per ton of flake processed, so that the above limit is equivalent to VOM emissions of no more than 12.8 pound per ton. In addition, an estimated 3.0 pound per ton is retained in "wastes" that are used elsewhere at the complex, e.g., the ethanol plant, further reducing emissions to no more than 9.8 pounds per ton.)

b. The VOM control systems on the main vents for the Protein Concentrate Facility shall consist of a condenser and packed-bed water scrubber operated in conformance with good air pollution control practice, including:

i. The control systems shall be operated to control VOM emissions from the soy soluble extractors, desolventizing systems and soy soluble stripping system at all times when the affected process equipment is in operation.

ii. The control systems' packed-bed scrubber shall be operated with once-through scrubbant if the scrubbant is not processed to effectively strip ethanol and cooled prior to reuse.

iii. The control systems shall be operated to comply with the following requirements except during startup and shutdown of affected equipment:

A. A maximum gas outlet temperature for the condenser (inlet temperature to the scrubber) within the range established for normal operation;

B. A minimum water flow rate of 8 gallons per minute (This is equivalent to a design minimum flow rate of 1 gallon per 20 cubic feet);

C. A scrubber pressure drop within the range established for normal operation; and

D. A maximum gas outlet temperature for the scrubber (exhaust to the atmosphere) of 105□F or 10□F greater than the ambient temperature, whichever is higher.

iv. The control systems shall be operated to reasonably minimize emissions during startup and shutdown of affected equipment including thorough purging of affected process equipment to the operating control system prior to opening the process equipment for maintenance or repair.

4. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service that is consistent with the requirements, if any, in the regulations for vegetable oil extraction plants adopted by USEPA pursuant to Section 112 (d) of the Clean Air Act. Until such regulations are adopted by USEPA and are applicable to this plant, the Permittee shall implement an interim program that shall include the following elements as a minimum:

a. Scope: The program covers all components that are in VOM service in the process operations, other than components in vacuum service and components equipped with a closed vent system ducted to a VOM control system where the term component includes valves pumps and agitators (shaft seals), flanges, other connectors (inspection ports, manways, sight glasses, etc.), closed vent systems, and pressure relief devices.

b. Definitions:

Leak:

An instrument reading of 10,000 ppm or greater for components other than pressure relief devices, an instrument reading of 500 ppm or greater for pressure relief devices, or observation of leaking material from a component as detected by sight, smell or sound is considered a leak.

Leaks That May Be Readily Identified By Visual Inspection:

Leaks from a component shall be considered to be readily identified by visual inspection if (1) the component is in liquid service, (2) the vapor pressure of the VOM is less than 0.1 psia at 20□C or the VOM is accompanied by at least 25% water, by weight, and (3) a walk-through inspection for leaks in the area in which the component is located is conducted by the Permittee at least weekly.

c. Inspections are conducted on at least the following basis for components for which leaks may not be readily identified by visual inspection, using applicable instrument and source survey

procedures specified by USEPA Method 21 (except that manual calibration is not required on a daily basis if the instrument is self-calibrating and is serviced in accordance with the manufacturer's specifications) or the screening procedures in Method 21. Inspections are as follows:

Quarterly for affected components other than flanges, other connectors, and closed vent systems, except for valves as USEPA skip-check criteria and alternative practices established in 40 CFR 60.483-2 (NSPS for SOCMI Leaks) are satisfied;

Annually for closed vent systems;

Within a week for a pressure relief device after it experiences a pressure release;

Within a week for the flanges and other connectors in a particular area, system or feature after such components are involved in repair, maintenance, alteration or other activity that has the potential to result in a leak from flanges or other connectors, including resealing of a manway after entry to a vessel, if absence of leaking components was not verified as a final step in such activity by use of a soap solution or other comparable technique; and

Within a week after repair of a component for which a leak was detected and could not be readily repaired within one hour.

d. Repairs: Repairs are made as soon as practicable but not later than 30 days after identification or detection of a leak if repair is feasible without a process unit shutdown or not later than the end of the next process unit shutdown if one is necessary to accomplish the repair.

e. Tagging: A leaking component is “tagged” if it cannot be readily repaired within one hour of detection of a leak, which tag includes the date the leak was detected and the date the leak was repaired and which tag is only removed after the repaired component is inspected.

f. Records: Records are maintained that:

Facilitate correct and consistent identification of the components that are covered by the program.

Verify performance of required inspections, including date, personnel, proper implementation of inspection methods, purpose or scope of inspection, covered components and results.

Document each component leak that is identified, including identification of the component and the nature of the leak, and verify prompt repair of the leak, including the date the repair is completed and detailed explanation of the required actions for a leak repair that could not be completed within 10 days.

Compile the results of the program, including fulfillment of skip-check criteria for conventional valves when relied upon.

Identify each deviation from required practices, with appropriate identification, description and explanation.

g. Revisions: The minimum provisions for tagging and recordkeeping, as specified above, may be revised by the Illinois EPA in future operating permits for the plant to the extent that the Permittee demonstrates that effective detection and repair of leaking components is still reasonably assured by the revised provisions.

Conditions 2, 3, and 4 represent the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act.

5a. Total soybean throughput into the Soy Specialty Plant shall not exceed:

i. 100,000 bushels per day on a monthly average.

ii. 25,550,000 bushels for any consecutive twelve month period.

b. Total soybean flake throughput into the Protein Concentrate Facility shall not exceed:

i. 600 tons per day on a monthly average.

ii. 150,000 tons for any consecutive twelve month period.

6a. VOM consumption, i.e., hexane consumption by the modified Soybean Specialty Plant shall not exceed 3,992 tons per year. Compliance with this limit shall be determined from a rolling 12 month basis.

b. VOM consumption, i.e., ethanol consumption, by the modified Protein Concentrate Facility shall not exceed 1,800 tons per year. Compliance with this limit shall be determined from a rolling 12 month basis.

7a. Each significant particulate matter process emission unit in the modified Specialty Soybean Plant shall be equipped with a filter control device, unless the properties of its exhaust (e.g., moisture content and temperature) may prevent effective operation of a filter control device (Refer to Attachment A). These filter control devices shall be maintained and operated to comply with an outlet loading of

not more than 0.01 grain particulate matter per standard cubic foot of exhausted gas (0.01 gr/scf).

b. i. Emissions of particulate matter from individual emission units, in the modified Soybean Specialty Plant shall not exceed the maximum emission rate specified in Attachment A.

ii. Emissions of particulate matter from the modified Soybean Specialty Plant, by Department, shall not exceed the following limitations. These limitations are based on information provided in the application:

Department	Emission Rate (Lb/Hr)	Annual Hours (Hr/Yr)	Particulate Matter Emissions Project Increase (T/Yr)	Particulate Matter Emissions Total w/Increase (T/Yr)
Grain Prep and Rec.	28.54	8,760	24.59	124.93
Extraction	10.97	8,760	15.06	47.38
SPC Plant	6.39	8,760	15.99	27.99
A Mill	13.35	8,760	23.30	58.47
C Mill	11.66	8,760	5.46	51.28
TVP System	6.76	8,760	9.42	33.05
Isolate I	4.81	8,760	13.03	21.05
Isolate II	2.42	8,760	1.82	11.07
Isolate III	3.69	8,760	1.50	16.17
Industrial Isolate	1.73	8,760	0.90	7.58
Elevator B	5.16	8,760	0.12	22.62
Oil Refinery	0.05	8,760	0.05	0.20
		Totals:	111.23	421.78

c. The Permittee shall operate, maintain, and repair all particulate matter control equipment in the modified Soybean Specialty Plant in a manner that assures the emission limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation for different classes of control equipment. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on a regular schedule. Detailed inspections of control equipment shall be made at least once per year.

iii. Repairs: Repairs shall be made upon identification of need, either as a consequence of formal inspections or other observations, in a prompt manner consistent with good air pollution control practice for minimizing emissions.

iv. Operating Logs: Records of inspection, maintenance, and repair activities for air pollution control equipment shall be kept on site and shall include as a minimum:

A. Date and duration of inspection, maintenance, and repair activities;

B. Description of maintenance or repair activity if not routine preventative maintenance; and

C. Probable cause for requiring maintenance or repair if not routine or preventative.

e. This permit is issued based upon a contemporaneous and creditable decrease in particulate matter emissions so that the net increase in emissions of particulate matter is not significant, as described in Table C. Therefore this permit is not subject to Rules for the Prevention of Significant Deterioration of Air Quality, 40 CFR 52.21, for particulate matter. The decrease in particulate matter emissions was created by improvements in control of road dust at this grain processing complex.

i. The Permittee shall install and maintain in good condition pavement for all normal traffic areas at the source (East Plant).

ii. The Permittee shall either through its own employees or by contract sweep the following areas at least twice per week, with a sweeper that passes the exhaust through a filter, except for those areas and times when areas are physically obstructed by accumulations of snow, ice stored materials, or construction activity or emissions are controlled by precipitation.

A. All paved normal traffic areas within the Permittee's East plant;

B. Faries Parkway from the track at Gate No. 3, west through the intersection of Faries Parkway and Brush College Road.

iii. The Permittee shall keep records to reasonably demonstrate that the above requirements are met, including records of sweeping activity and decisions not to sweep.

8. The new or modified units or operations and other existing equipment as addressed by this permit may be operated for a period of 365 days pursuant to this Construction Permit.

   a. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

   b. The shakedown period following initial startup of new and modified equipment shall not exceed 180 days.

9a. Upon reasonable written request from the Illinois EPA measurements of particulate matter emissions from specified emission unit(s) shall be conducted in accordance with test methods of the 40 CFR part 60, Appendix A, so as to demonstrate compliance with the emission limits in this permit.

b. The Illinois EPA shall be notified prior to conducting any compliance testing of emission units in this permit to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

10. The Permittee shall install, operate and maintain gauges to measure the pressure drop across each packed-bed scrubber.

11a. The Permittee shall maintain the following records related to proper operation of the VOM control systems:

   i. The gas outlet temperature (F□) from the condenser, scrubbant flow rate (gallons/minute), and scrubber pressure drop and exhaust flow rate, as determined at least once per shift and daily average;

   ii. The temperatures (F□) of the mineral oil entering the mineral oil scrubber and in the mineral oil stripper, as determined at least once per shift and daily average;

   iii. The gas outlet temperature (F□) of the mineral oil scrubber, as determined at least once per shift and daily average;

   iv. The ambient temperature (F□) at the time of the above temperature measurement, if the required operating temperature of the control system is determined based on ambient temperature; and

v. Hexane concentrations (in percent LEL or ppm as measured by a MSHA or OSHA approved explosimeter) in the exhaust from the Soybean Specialty Facility control system, as determined at least once per shift and daily average.

b. The Permittee shall maintain a log for each solvent extractor, each desolventizing system and each VOM control system (condenser and packed bed scrubber) for inspection, maintenance, and repair activities, which shall include as a minimum:

i. Date of inspection, maintenance, and repair activities;

ii. Description of maintenance or repair activity if not routine or preventative maintenance; and

iii. Probable cause for requiring maintenance or repair if not routine or preventative maintenance.

c. The Permittee shall maintain records of the following items as they occur:

i. Amount of VOM solvent (hexane) received (pounds), with records of receipts, shipping tickets, and the amount transferred to storage tanks i.e., the difference between the tank amount before and after receiving hexane with supporting calculations;

ii. Amount of VOM solvent (hexane) returned to the supplier or shipped to other sources (pounds);

iii. Amount of VOM solvent (hexane) in inventory, i.e., in storage tanks (pounds);

iv. Amount of VOM solvent (hexane) used, e.g., transferred from storage to the extraction process (pounds);

v. Amount of VOM solvent (ethanol) received (pounds), with records of receipts, shipping tickets, and the amount transferred to storage tanks i.e., the difference between the tank amount before and after receiving VOM solvent (ethanol) with supporting calculations;

vi. Amount of VOM solvent (ethanol) returned to the supplier or shipped to other sources (pounds);

vii. Amount of VOM solvent (ethanol) in inventory at the Soy Protein Concentrate Plant, i.e., in storage tanks (pounds); and

viii. Amount of VOM solvent (ethanol) used, e.g., transferred from storage to the Soy Protein Concentrate Facility (pounds).

d. The Permittee shall maintain daily records of the following items:

   i. Quantity of soybeans processed (tons);

   ii. Quantity of VOM solvent (hexane) consumed in the Soybean Specialty Facility (pounds);

   iii. Quantity of soy protein concentrate flake processed (tons); and

   iv. Quantity of VOM solvent (ethanol) consumed in the Protein Concentrate Facility (pounds).

e. The Permittee shall maintain compliance records as follows to address the limitations of this permit.

   i. Annual VOM (hexane) consumption, by the modified Soybean Specialty Plant, on a monthly basis (Condition 6(a));

   ii. Annual VOM (ethanol) consumption (tons) by the modified Protein Concentrate Plant on a monthly basis (Condition 6(b));

   iii. 180-day average VOM (hexane) consumption rate (lb/ton processed) for the modified Soybean Specialty Plant, on a daily basis (Condition 2(a)) beginning 180 days after the shakedown period for the modified plant; and

   iv. 180-day average VOM (ethanol) consumption rate (lb/ton processed) for the modified Protein Concentrate Plant, on a daily basis (Condition 3(a)) beginning 180 days after the shakedown period for the modified plant.

f. The Permittee shall record any period during which any emission unit was in operation when its air pollution control equipment was not in operation or was not operating properly.

   i. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

   ii. These records shall also identify any such periods during which an emission source violated applicable emission limits, including the specific requirements of this permit, based upon the above records. This record shall include the cause for noncompliance, if known, the corrective action(s) taken, and the measures taken to prevent any such reoccurrence if any.

g. i. All records required by this permit shall be retained at the source for three years, and shall be readily available for inspection and copying by the Illinois EPA and USEPA.

ii. Records may be kept in a computerized data system provided that requested information can be retrieved at the source during its normal working hours.

12a. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

b. In conjunction with the Annual Emission Report required by 35 IAC Part 254, the Permittee shall provide:

i. Estimates of the percentages of VOM solvent consumed by the Soybean Plant and the Protein Concentrate Plant during the previous year that was retained in various products and waste and not lost to the atmosphere. This report shall include an explanation of the manner in which the estimates were developed and be accompanied by a summary of the analytical data relied upon in developing such estimates.

ii. A detailed calculation of road dust and other fugitive particulate matter emissions from the complex, determined as PM_{10} in accordance with published USEPA methodology, with supporting calculations, and a listing of projects that have reduced such emissions from the complex.

c. The Permittee shall provide the Illinois EPA with written notice at least 30 days prior to use of ethanol produced at its Decatur complex in the Specialty Soybean Process Plant. (Note: The Decatur complex does not currently produce beverage alcohol, which must be used in the Specialty Soybean Process Plant as it makes products for possible human consumption.)

13a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Agency at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code 254, shall also be sent to the Agency at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

14a. An evaluation program shall be conducted for VOM emissions from the oil extractor and desolventizing systems. This program shall determine the effectiveness of the new flash desolventizing system for VOM removal and recovery, consistent with maintenance of product output and quality. As part of this program, the Permittee shall keep appropriate records to allow the operation of this new unit to be investigated independently of other desolventizing systems in the Specialty Plant.

b. The evaluation shall be implemented pursuant to a plan submitted to the Illinois EPA for review and comment.

c. The evaluation shall be completed and results submitted to the Illinois EPA within 30 months of the initial startup of the modified plant.

15. This approval does not relieve the Permittee of the responsibility to comply with all Local, State and Federal Regulations which are part of the applicable Illinois State Implementation Plan, as well as all other applicable Federal, State, and Local requirements.

It should be noted that the description of source GP15-01 in Attachment A has been revised from "E-W Dryer (Dehull/Conditioner)" to "Preheater and E-W Dryer (Dehull/Conditioner)". All emission limits remain unchanged from original issue date, September 14, 1998, for the PSD permit.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 99040092

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99040092
Applicant's Designation:
Subject: Bean Preheater
Date Issued: June 25, 1999
Date: June 25, 2004
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: April 26, 1999

Operating Permit Expiration

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of bean preheater as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on no increase in emissions over those currently permitted in Permit No. 96100019.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

Table A

Permitted Change in Volatile Organic Material (VOM) Emissions* for Soybean Specialty Plant (ton/year)

Actual**	Future Potential	Change	Description of Change
1,631	3,992	2,361	Increase in throughput and additional equipment

* Based on disappearance or consumption of extraction solvents, e.g., hexane.

** Actual VOM emissions are based on the average data for 1995 and 1996.

Table B

Permitted Change in Volatile Organic Material (VOM) Emissions* Protein Concentrate Plant (ton/year)

Actual**	Future Potential	Change	Description of Change
363	1,800	1,437	Increase in throughput and additional equipment

* Based on disappearance or consumption of extraction solvents, e.g., ethanol.

** Actual VOM emissions are based on the average data for 1995 and 1996.

Table C

Listing of Contemporaneous Projects

Permit No.	Date	Project Description	Particulate Matter* Emissions (ton/year)
88010014**	03/88	Protein Concentrate	6.00
88120063**	03/89	Industrial Soy Protein	6.75
89010071**	06/89	Protein Isolate Expansion	13.27
89100034**	01/89	Protein Isolate	0.00
89100035**	01/90	Protein Concentrate	6.00
89100036**	01/90	Industrial Soy Protein	0.59
89010004	09/89	Flour Grinding	3.70
93120004	12/93	Vitamin E (West Specialty Plant)	1.76
90110017	02/94	Flour Grinding Annex III	4.85
93120100	02/94	Germ Meal Receiving (Corn Wet Mill)	14.70
94010002	03/94	Germ Drying Improvements (Corn Wet Mill)	0.00
94040067	07/94	Specialty Ingredients(West Specialty Plant)	1.80
94060041	08/94	Hull Pellet Cooling	1.20
94080146	08/94	Baghouse Replacement	0.00
94080034	10/94	Baghouse Replacement	0.00
95010056	03/95	Gluten Grinder (Corn Wet Mill)	6.60
95030114	05/95	Hull Loadout	0.00
91090059	06/95	Biochem II (BioProducts)	16.37
95050006	07/95	DTDC Replacement	14.02
95050189	07/95	Protein Isolate III	13.31
	07/95	Road Dust Control Program***	- 489.00
95070134	08/95	Natural Gas Boiler (West Plant)	0.44
89110060	08/95	Riboflavin (BioProducts)	2.62
94110004	12/95	Vitamin C (BioProducts)	4.60
95120269	12/95	TVP Fabric Filter Replacement	0.00
94050075	02/96	Biosys Dryer (BioProducts)	9.20
96020051	03/96	Crystalline Mannitol (West Specialty Plant)	14.12
94030062	04/96	Xantham Gum (BioProducts)	13.05
96050082	06/96	Rail Receiving Modification (East Elevator)	5.70
96080061	08/96	New Isolate Packaging	3.88
94110093	09/96	Sorbitol (BioProducts)	3.90
		Total	- 320.57

Permit No.	Date	Project Description	Particulate Matter* Emissions (ton/year)
		Specialty Soybean Process Plant Expansion	111.23
		Contemporaneous Road Dust Increase****	10.00
		Contemporaneous Projects	- 320.57
		Net Change	- 199.34
		Supplemental Road Dust Control*****	18.30
		Overall Net Change	- 181.04

* Except as noted, particulate matter emissions determined assuming all particulate matter is PM_{10}.

** Project beyond contemporaneous time period but included because within the Specialty Soybean Plant and potentially affected by modifications.

*** Reduced emissions, determined as PM_{10}, from improvements in control of road dust on plant roads (East Complex).

**** Allowance for contemporaneous increases in road dust emissions due to increased truck traffic at the complex.

***** Reduced emissions, determined as PM_{10}, from additional improvements in road dust control to address reliance on road dust emissions, provided by improved control along Faries Parkway (Total estimated at 36.0 tons PM_{10}/year). The required supplemental reduction is 10 percent or 17.3 tons/year, to address contemporaneous increases of 172.6 tons/year (111.23 + 76.27 - 14.9 = 172.6).

Attachment A

List of New and Modified Equipment

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
	RECEIVING AND PREPARATION		
RC05-01	Truck Dump No.1	Baghouse	1.29
RC05-02	Truck Dump No.2	Baghouse	1.71
RC05-03	Truck Dump No.3	Baghouse	1.29
RC05-04	Truck Dump No.4	Baghouse	0.86
RC05-05	Truck Dump No.5	Baghouse	0.86
RC05-07	Rail Dump	Baghouse	1.30
RC20-01	2 Grain Dryers	2 Cyclones	0.72
RC20-01a	2 Grain Dryers (combustion)	2 Cyclones	0.69
RC05-06	Grain Legs (South Baghouse)	Baghouse	2.79
RC10-01	Grain Process & Legs (Center Baghouse)	Baghouse	3.95
RC10-05	Grain Legs (North Baghouse)	Baghouse	4.94
GP10-01	Westside Grain Prep Equipment Baghouse	Baghouse	1.72
GP15-01	Preheater and E-W Dryer (Dehull/Conditioner)	Cyclone	1.41
GP10-03	Hot Bean Aspirator	Cyclone	1.65
GP15-02	Flaking Rolls	Cyclone	0.47
GP05-06	Flaking Conveyors	Cyclone	0.47
GP10-04	Secondary Dehulling	Baghouse	2.14
GP20-03	Hull Pellet Cooler	Cyclone	0.28
	EXTRACTION		
EX10-01	DTDC	4 Cyclones	3.20
EX15-01	Meal Sifter/Grinder	Baghouse	1.72
EX10-04	Soy Meal Cooler (East)	Baghouse	1.72
EX10-02	Soy Meal Cooler (Center)	Baghouse	1.72
EX10-03	Soy Meal Cooler (West)	Baghouse	1.72
EX10-05	Soy Meal Cooler (Toaster)	Cyclone	0.29
EX10-06	Whiteside Fluid Bed Cooler*	Baghouse	0.60
EX30-01	Oil Extraction (Hexane Emission)	-	-
	SOY PROTEIN CONCENTRATE		
SP20-01	SPCI Dryer/Cooler	Cyclone	0.75
SP20-02	SPCI Dryer/Cooler	Cyclone	0.75
SP20-03	SPCII Dryer/Cooler	Cyclone	0.50
SP20-04	SPCII Dryer/Cooler	Cyclone	0.50
SP20-05	SPCII Dryer/Cooler	Cyclone	0.50
SP30-01	SPCIII Flake Receiving Tank*	Baghouse	0.21
SP30-02	SPCIII Dryer/Cooler*	Cyclone	0.80
SP30-03	SPCIII Dryer/Cooler*	Cyclone	0.80

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
SP30-04	SPCIII Dryer/Cooler*	Cyclone	0.80
SP30-05	SPCIII Dryer/Cooler*	Cyclone	0.80
SP10-01	Protein Extraction (Ethanol Emissions)	-	-
	FLOUR MILL A		
AD05-01	Annex IV Flake Receiving*	Baghouse	0.26
AD10-01	Annex IV Flour Grinding*	Cyclone/Baghouse	1.20
AC05-01	Annex III Flake Receiving	Baghouse	0.26
AC10-01	Annex III Flour Grinding	Cyclone/Baghouse	1.20
AB05-01	Annex II Flake Receiving	Baghouse	0.26
AB10-01	Annex II Flour Grinding	Baghouse	0.42
AB10-02	Annex II Flour Grinding	Baghouse	0.42
OF05-02	Old Flour System (Mill & Fan)	Baghouse	1.95
AF05-01	Annex Flour Flake Receiving	Baghouse	0.48
AF05-02	Annex Flour Mills (5)	3 Cyclones/ Baghouse	2.37
FF10-01	Fast Freddy Grinder/Separator	Baghouse	1.38
AG05-01	Annex Grit Receiv. (Mill, Conv., Rotex)	Baghouse	0.48
OG05-01	Central Vacuum System	None	0.05
OG10-01	Old Grit System Receiving	Baghouse	0.26
OG10-02	3rd Floor Grit (Mill, Conv., Bulk, Rotex)	Baghouse	1.72
BT05-03	Bulk Loadout #3 Receiving	Baghouse	0.19
BT05-05	Bulk Loadout #5 Receiving	Baghouse	0.19
BT05-06	Bulk Loadout #6 Bulk Tank	Baghouse	0.26
	FLOUR MILL C		
IS10-01	Protein Isolate Receiving/Packer Line 1	Baghouse	0.10
IS10-02	Protein Isolate Pkg. Receiving Line 2	Baghouse	0.10
IS20-01	Protein Isolate Pkg. Bagging Line 1	Baghouse	0.34
IS20-02	Protein Isolate Pkg. Bagging Line 2	Baghouse	0.34
IS05-01	Protein Isolate Pkg. (3 Tanks)	3 Baghouses	0.26
BP05-01	W. Filter Receiver	Baghouse	0.26
BP05-03	Isolate II Pkg. (4 Tanks)	4 Baghouses	0.38
BP05-04	Isolate III Pkg. (4 Tanks)	4 Baghouses	0.26
CP05-01	Annex II Pack Tank Receiving	Baghouse	0.26
CP05-02	Annex III Pack Tank Receiving	Baghouse	0.26
CP10-01	SPC Dual Spout Bagger	Baghouse	0.26
FP05-01	East Flour Receiver	Baghouse	0.44
FP05-03	West Flour Receiver	Baghouse	0.44
FP05-02	Flour Packer & Receiver (5 Tanks)	Baghouse	0.26
HH05-01	Central Vacuum System	None	0.05
IP10-01	Industrial Isolate Dual Spout Bagger	Baghouse	0.26
IP05-01	Industrial Isolate Transfer (5 Tanks)	5 Baghouses	0.15
OS05-01	Oil Blend Flour Receiving	Baghouse	0.25

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
OS10-01	Oil Blend Grind/Pack	Baghouse	1.51
PP05-01	Isolate Flour Transfer & Dual Bagger	Baghouse	1.69
PP05-02	Grit Packer (Rotex, Conv., Packer)	Baghouse	1.51

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
SS05-01	Isolate I Receiver (Cyclone Receiver)	Baghouse	0.39
SS05-02	Isolate I Grind (Rotex, Blender, Tank)	Baghouse	0.34
SS05-03	Isolate Receiving/Supersacker	Baghouse	0.26
SS05-04	East Isolate Receiving/Packer	Baghouse	0.26
SM05-01	Meal Loadout (Rail)	Baghouse	1.03
	TEXTURED VEGETABLE PROTEIN SYSTEM		
TV05-01	Flake Tank Receiver (Tanks)	Baghouse	0.26
TV05-03	Dust System (Conv., Blenders, Scales)	Baghouse	1.19
TV15-01	Extruders #1,#2,#3, & Grinder	Cyclone	0.13
TV15-03	Extruders #1,#2,#3, & Grinder	Cyclone	0.13
TV15-04	Extruders #4,#5,#6, & 2 Grinders	Cyclone	0.13
TV15-06	Extruders #4,#5,#6, & 2 Grinders	Cyclone	0.13
TV15-07	Extruders #4,#5,#6	Cyclone	0.13
TV15-08	Extruders #4,#5,#6	Cyclone	0.13
TV15-09	Extruders #1,#2,#3	Cyclone	0.13
TV20-01	TVP Dryer 1	None	0.94
TV20-01a	TVP Dryer 1 (combustion)	None	0.04
TV20-02	TVP Steam Dryer 3	None	0.94
TV20-03	TVP Steam Dryer 4	None	0.94
TV20-04	TVP Steam Dryer 6	None	0.94
TV25-01	TVP Packer (Blenders, Screens, Packers)	Baghouse	1.38
	EDIBLE ISOLATE I		
IA10-01	Flake Receiving	Baghouse	0.10
IA10-02	Reblend Receiver	Baghouse	0.10
IA20-01	2 Rotary Dryers (Extract & Purifying)	Baghouse	0.27
IA20-02	West Spray Dryer	2 Cyclones/ 2 Baghouses	0.70
IA20-02a	West Spray Dryer (combustion)	None	0.27
IA20-03	North Spray Dryer	Cyclone/Baghouse	0.28

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
IA20-03a	North Spray Dryer (combustion)	None	0.14
IA20-04	Center Spray Dryer	2 Cyclones/ 2 Baghouses	0.56
IA20-04a	Center Spray Dryer (combustion)	None	0.27
IA20-05	East Spray Dryer (1)	2 Cyclones/ Baghouse	1.43
IA20-05a	East Spray Dryer (combustion)	None	0.69
IA20-06	East Spray Dryer (2)	Baghouse	1.43
IA20-06a	East Spray Dryer (combustion)	None	0.69
	ISOLATE II		
IB10-01	Flake Receiving	Cyclone/Baghouse	0.10
IB20-01	2 Rotary Dryers (Extract & Purifying)	Baghouse	0.52
IB20-02	Spray Dryer (Extract & Purifying)	4 Baghouses	1.20
IB20-02a	Spray Dryer (combustion)	None	0.30
IB40-01	Grind	Baghouse	0.34
IB30-01	Central Vacuum	None	0.06
IB40-02	HCL Storage Tank	Scrubber	-
IB40-03	HCL Storage Tank	Scrubber	-
	ISOLATE III		
IC10-01	Flake Receiving Tank	Baghouse	0.17
IC20-01	2 Rotary Dryers (Extraction)	Baghouse	1.29
IC20-02	Spray Dryer (Extract & Purifying)	4 Baghouses	1.50
IC20-02a	Spray Dryer (combustion)	None	0.30
IC40-01	Grind	Baghouse	0.34
IC30-01	Central Vacuum	None	0.09
	INDUSTRIAL ISOLATE		
II10-01	Flake Receiving Tanks	Baghouse	0.10
II20-01	Rotary Dryer #1	Cyclone/Baghouse	0.14
II20-05	Rotary Dryer #2	Cyclone/Baghouse	0.14
II20-02	Tunnel Dryer #1	Baghouse East	0.48
II20-02a	Tunnel Dryer #1 (combustion)	None	0.06
II20-03	Tunnel Dryer #2	Baghouse West	0.48
II20-03a	Tunnel Dryer #2 (combustion)	None	0.06
II20-04	Grinding	Baghouse	0.26
II30-01	Calcium Hydroxide Tank (Lime Trans.)	Baghouse	0.02
II40-01	Hydrogen Sulfide Tank	None	-
II50-01	Phthalic Anhydrate (Process Fugitive)	None	-
II99-01	Protein Modification	Scrubber	-
	ELEVATOR B		
EB05-01	North Baghouse (Process, Silo, Conv.)	Baghouse	1.72
EB05-02	Center Baghouse (Process, Silo, Conv.)	Baghouse	1.72
EB05-03	South Baghouse (Legs & GP15-01)	Baghouse	1.72

Unit No.	Description	Particulate Matter Control	Maximum Particulate Matter Emission Rate (Lb/Hr)
	OIL REFINERY		
OR20-01	3.9 MBtu/hr Natural Gas Fired Boiler	None	0.05

State Construction Permit 95050006

"REVISED"
CONSTRUCTION PERMIT GRANT - OPERATING PERMIT DENIAL

PERMITTEE

Archer Daniels Midland Co.
Attn: John Cwiklewski
4666 Faries Parkway
Decatur, IL 62525

Application No.: 95050006
I.D. No.: 115015AAE
Applicant's Designation: DECATUREPT
Date Received: August 14, 1995
Subject: DTDC Replacement
Date Issued: November 7, 1995
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a meal desolventizer toaster dryer cooler (DTDC) with cyclones to replace the existing meal desolventizer, toaster, meal dryer and meal cooler, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The cyclone on the meal desolventizer toaster (DTDC) shall be maintained and operated to limit particulate matter (PM) and PM10 emissions in the exhaust to 0.0187 and 0.0113 grain per standard cubic foot respectively.

b. Emissions from the meal desolventizer (DTDC) shall not exceed the following limits:

Hourly Emissions (lb/hr)		Annual Emissions (ton/yr)	
PM	PM_{10}	PM	PM_{10}
5.26	3.20	23.0	13.9

2a. The meal desolventizer, toaster, dryer and cooler (DTDC) may be operated for a period of 180 days following initial startup pursuant to this permit, during which the testing required by Condition 3 shall be performed.

b. This permit is issued based upon replacing the existing, less efficient meal desolventizer, meal dryer (OES205) and meal cooler (OES204A) with a new meal desolventizer, toaster, dryer and cooler (DTDC).

c. The Permittee shall provide written notice within 5 business days of the following events:

i. Initial startup of the new meal desolventizer, toaster, dryer, cooler (DTDC).

ii. Retirement of the existing meal dryer (OES205)

3a. i. Within 180 days of initial startup or 60 days of achieving the maximum production rate, whichever occurs first, the particulate matter and PM10 emissions of a (cyclone) shall be determined by testing, unless another method is approved by the Agency:

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency:

Location of Sample Points	USEPA Method 1 (40 CFR 60, Appendix A)
Gas Flow and Velocity	USEPA Method 2 (40 CFR 60, Appendix A)
Particulate Matter (PM)	USEPA Method 5 (40 CFR 60, Appendix A)
PM_{10}	USEPA Method 201 or 201A (40 CFR 51, Appendix M)

c. At least 45 days prior to the actual date of testing a written test plan shall be submitted to the Agency for review and approval. This plan shall describe the specific procedures for testing, including as a minimum:

i. The proposed methodology and equipment to be used to test PM10 emissions.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

d. The Agency shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these test.

e. Three copies of the Final Report(s) for these tests shall be submitted to the Agency within 14 days after the test results are complied and finalized.

i. A summary of results

ii. General information

iii. Description of test method(s)

iv. Process and control data during the test

v. Data and calculations, including copies of all raw data sheets, records of laboratory analyses, sample calculations, and data on equipment calibration

f. Submittals of test plans notification and final reports shall be made with one copy to Source Emission Test Specialist (address below), one copy to the Regional Office, and one copy to Compliance Unit.

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
1701 First Avenue
Maywood, Illinois 60153

g. The Agency may waive the requirement for testing of PM10 emissions if PM emissions comply with the limits set for PM10 emission and this permit is revised to require such compliance.

4a. Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with the limits in Condition 1.

i. Production (tons meal) on at least a monthly basis.

ii. Operation of control equipment, on at least a daily basis.

b. These records shall be retained for two years at the source and shall be readily available for inspection and copying by the Agency.

5. With the annual emission report required by 35 Ill. Adm. Code 201.302, the Permittee shall submit the following:

a. Annual production (tons meal).

b. Annual emissions of particulate matter, with supporting calculations, from the meal dryer and cooler.

c. Identification of periods when applicable emission limits in Condition 1 were exceeded, with explanation, if such data has not already been provided to the Agency.

The OPERATING permit application is DENIED because the Illinois Environmental Protection Act, Section 9, and 35 Ill. Adm. Code 201.160 might be violated.

CAAPP PERMIT
Archer Daniels Midland Company - Decatur Complex
I.D. Number: 115015AAE
Application No.: 96030038

Pursuant to Section 201.160, an operating permit may not be issued until the equipment has been constructed or modified in accordance with applicable conditions in this construction permit. The Agency suggests that you reapply for the operating permit after the construction is completed in accordance with the construction permit. This information must be submitted in Triplicate and should reference the application and I.D. numbers assigned above.

It should be noted that this permit has been revised to correct the description and conditions.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:sad

cc: Region 3
Jim O'Donnel

State Operating Permit 87020012

OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Joseph A. Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 87020012
I.D. No.: 115015AAE
Applicant's Designation: ISOPLANT
Date Received: May 7, 1997
Subject: Isolated Soy Protein Plant
Date Issued: July 10, 1997
Expiration Date: July 10, 1999
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of the emission sources listed in Table 1 as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Particulate matter emissions of the following equipment shall not exceed the following limits.

OES	Item of Equipment	Particulate Matter Emissions (Lbs/Hr)	(T/Yr)
901	Flake Transfer	1.00	4.40
902	East Protein Dryer	< 0.025	< 0.1
903	West Protein Dryer	< 0.025	< 0.1
904	12' Protein Dryer	< 0.025	< 0.1
905	Bulk Protein Transfer	0.390	1.70
906/906A	Rotary Fiber Dryer	0.270	1.18
907	Bulk Fiber Transfer	0.800	3.54
908	Protein Packer Transfer	1.600	6.75
909	4th Protein Dryer	< 0.025	< 0.1
		Total:	17.6

b. Nitrogen oxide and carbon monoxide emissions and operation of the following equipment shall not exceed the following limits.

OES	Item of Equipment	Firing Rate (MBtu/Hr)	EMISSIONS Nitrogen Oxides (Lb/Hr)	(T/Yr)	Carbon Monoxide (Lb/Hr)	(T/Yr)
902	East Protein Dryer	50	3.25	15.3	1.75	7.665
903	West Protein Dryer	20	1.4	6.1	0.7	3.066
904	12' Protein Dryer	10	0.7	3.1	0.35	1.533
909	4th Protein Dryer	20	1.4	6.1	0.7	3.066
				30.6		15.33

c. All of the annual emission are based on operating hours of 8760 hours/year.

2a. Particulate matter emissions of the following equipment, constructed pursuant to Construction Permit 89010071, shall not exceed the following limits. The annual emission are based on operating hours of 8,760 hours/year.

OES	Item of Equipment	Particulate Matter Emissions (Lb/Hour)	(Ton/Yr)
921	Flake Transfer	0.1	0.44
922	30 ft Protein Dryer	1.2	5.26
923	Bulk Protein Transfer	0.385	1.68
924	Rotary Fiber Dryer	0.27	1.18
925	Rotary Fiber Dryer	0.27	1.18
926	Rotary Fiber Transfer	0.81	3.53
		Total:	13.27

b. Nitrogen dioxide and carbon monoxide and operation of the following equipment shall not exceed the following limits:

OES	Item of Equipment	Firing Rate (MBtu/Hr)	EMISSIONS Nitrogen Oxides (Lb/Hr)	(T/Yr)	Carbon Monoxide (Lb/Hr)	(T/Yr)
922	30' Protein Dryer	100	7.0	30.6	3.5	15.33

These limits are based on the information provided in the permit application.

c. Compliance with annual limits shall be determined from a running total of 12 months of data.

3a. i. Particulate matter emissions of the following equipment constructed pursuant to construction permit 95050189, shall be operated without visible emissions of particulate matter to the atmosphere.

ii. Emissions and operation of equipment shall not exceed the following limits:

OES No.	Item of Equipment	Exhaust Rate (acfm)	Particulate Matter Emissions (Lb/Hr)	(T/Yr)
931	Flake Transfer	2,000	0.17	0.74
932	Spray Dryer	200,000	1.50	6.96
933/934	Rotary Dryers (Total)	15,000	1.29	5.65
935	Vacuum System	1,000	0.08	0.35
			Total	13.31

b. i. Natural gas or other gaseous fuel shall be the only fuel fired in spray dryer OES 932, at a rate not to exceed 100 million Btu per hour.

ii. Emissions of nitrogen dioxide (NO_x) and carbon monoxide (CO) from the spray dryer shall not exceed the following limits:

Firing Rate ((MBtu/Hr)	NO_x (Lb/Hr)	NO_x (T/Yr)	CO (Lb/Hr)	CO (T/Yr)
100	4.5	19.8	3.5	15.3

These limits are based on the information provided in the permit application.

c. Compliance with annual limits shall be determined from a running total of 12 months of data.

4a. The Permittee shall keep written records of the following item as related to the requirements established by Conditions 1 and 2. These records may include normal production and operating records and shall be kept on at least a monthly basis.

i. Soy protein production (ton/day, ton/month and ton/year).

b. i. Operating parameters for the protein dryers to identify proper dryer operation, at least once per day.

ii. Operating parameters for the control system protein dryers and each cooler/cyclone to identify proper operation, at least once per shift and at least once per day for the handling-conveying system/baghouse.

iii. The amount of natural gas fired in the protein dryers on a daily basis in million Btu.

c. The operating parameters of other equipment and associated control devices, as related to emissions.

5a. i. Within 90 days of a written request from the Agency the particulate matter emissions of spray dryer baghouse shall be measured as follows by an approved testing service, during conditions which are representative of maximum emissions.

ii. The particulate matter emissions from the spray dryer shall be measured as follows. Within 90 days of a written request from the Agency.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency:

Location of Sample Points	USEPA Method 1 (40 CFR 60, Appendix A)
Gas Flow and Velocity	USEPA Method 2 (40 CFR 60, Appendix A)
Particulate Matter	USEPA Method 5 (40 CFR 60, Appendix A)

c. The Agency shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

d. Three copies of the Final Report(s) for these tests shall be submitted to the Agency within 14 days after the test results are compiled and finalized.

i. A summary of results.

ii. General information.

iii. Description of test method(s).

iv. Process and control data during the test.

v. Data and calculations, including copies of all raw data sheets, records of laboratory analyses, sample calculations, and data on equipment calibration.

e. Submittals of test plans and notifications shall be made with one copy to Source Emission Test Specialist (address below), one copy to the Regional Office, and one copy to Compliance Unit.

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
1701 First Avenue
Maywood, Illinois 60153

6. This permit is based on representations of maximum operation and maximum actual emission rates made in the permit application in order to limit emissions to levels below those at which the Agency believes the federal Prevention of Significant Deterioration Regulations (PSD) would apply. The Agency will revise this condition upon the formal request of the Permittee if the requirements of applicable rules would be met by the permit application.

7a. This permit is issued based upon adding a baghouse in series with the two cyclones which control the two steam rotary fiber dryers OES 906 and OES 906A, without any increase in emissions of particulate matter into the atmosphere.

b. This permit is issued based upon adding a baghouse in series with two existing cyclones that control the two rotary fiber dryers OES924 and 925, without any increase in emissions of particulate matter into the atmosphere.

8. This permit is issued based on the fact that the above-specified units are identified in the Permittee's pending application for a CAAPP permit and are certified, by Permittee, to be in compliance with applicable regulations.

9. This permit does not preclude any future permitting review and evaluation nor does it shield the Permittee from any legal action for noncompliance with or circumvention of, applicable regulations.

It should be noted that a detailed review of the specified units will be performed during the review of the pending CAAPP application submitted for these units.

It should be noted that the limits on particulate matter emissions from the flake transfer (OES 921) and 30 foot protein dryer (OES 922) in Condition 2(a) have been revised at the request of the Permittee, to be consistent with the results of emissions testing. The results of this revision is an increase in permitted emissions of 0.67 ton/year.

It should be noted that this permit has been revised to include construction permit 95050189.

If you have any questions on this, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Operating Permit 72110964

OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: John Cwiklewski
4666 Faries Parkway
Decatur, IL 62526

Application No.: 72110964
I.D. No.: 115015AAE
Applicant's Designation: DECATUREPT
Date Received: August 16, 1996
Subject: Decatur East Plant, with Modified Equipment
Date Issued: September 18, 1996
Expiration Date: September 16, 1999
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a soybean processing plant, with emission sources as shown on the attached list as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Particulate matter (PM) emissions from equipment shall not exceed the following limits:

Item of Equipment	Hourly Emissions (lbs/hr)	Annual Emissions (ton/yr)
OES103B Fluid bean dryer	1.41	6.18
OES202A Secondary dehulling	0.04	0.18
OES205 Meal Dryer	1.63	7.14
OES307 Meal Transfer	0.02	0.09
OES301 Meal Screen	0.14	0.61
OES301A Meal Loadout	0.01	0.04
OES204A Meal Cooler	0.02	0.09
Total:	3.27	14.33

These limits are based on information provided in the permit application.

b. Volatile organic material (VOM) emissions shall not exceed the following limits:

Item of Equipment	VOM Emissions lb/hour	ton/yr
Final vent	4.31	8.8
Other (total)	0.1	0.44

These limits are based on the information provided in the permit application.

c. This permit is issued based upon replacing an existing baghouse with a new and single baghouse, without any increase in emissions of particulate matter into the atmosphere.

d. This permit is issued based upon adding a hull loadout tank, without any increase in emissions of particulate matter into the atmosphere.

e. This permit is issued based upon replacing two existing isolated packaging operations with two new isolated protein packaging operations. One of the existing packers will be used as a backup.

2a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with the limits in Condition 1.

i. Production

ii. Hexane consumption

iii. Operation of control equipment

b. These records shall be retained for two years and shall be available for inspection by the Agency.

3. With the annual emission report required by 35 Ill. Adm. Code 201.302, the Permittee shall submit the following:

a. Annual emissions of hexane, with supporting calculation, from the plant.

b. Annual emissions of particulate matter, with supporting calculations, from the fluid bed feed dryer (OES 103B) and meal dryer (OES 205).

c. Identification of periods when applicable emission limits in Condition 1 were exceeded, with explanation, if such data has not already been provided to the Agency.

4. This permit is issued based upon replacing an existing baghouse with a new baghouse, without any increase in emissions of particulate matter into the atmosphere.

5. The Permittee shall maintain a housekeeping checklist. This checklist shall contain the applicable housekeeping practices described in the attached "Minimum Recommendations for Housekeeping Practices for Grain Handling Facilities", pursuant to 35 Ill. Adm. Code 212.461(b).

6. This permit is issued based on replacing the north and south Kice fabric filters with a new Pneumafil baghouse, without any increase in emissions of particulate matter into the atmosphere.

7a. The Permittee shall maintain records of the following items for the facility:

   i. The operating pressure drop across each baghouse during normal plant operating conditions, at least once a day. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's specifications.

   ii. The performance of the dust control systems shall be inspected for proper operation during normal plant operating conditions, at least once each week, with date, time and observations.

b. These records shall be retained for two years and shall be available for inspection by the Agency upon request.

8. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

It should be noted that this permit was revised to include construction permit 96080061.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

Emission Sources included in Permit No. 72110964.

List includes ADM ID Numbers.

1. Truck Dump Receiving 101 - 39B and 39C
2. Truck Dump Receiving 101 - 39 and 39A
3. Rail Dump 102B
4. Elevator Legs/Storage 102
5. Elevator Legs/Storage 102C
6. Elevator Legs/Storage 102A
7. Berico Dryer 103A
8. Fluid Bed Dryer 103B
9. Bean Prep/Flaking Rolls (217) Secondary Dehulling - 202A
10. Steam Tube Meal Dryer 205
11. Rotary Meal Cooler Includes 204 - 221 into 204A
12. Oil Extraction Final Vent 218
13. Fugitive VOC
14. Meal Screen/Grind 301
15. Meal/Hull Load-Out 301A
16. Flaking Rolls 217 (Included in 202A)
17. Specialty Products Processing/Cooling 219A and 219B
18. Specialty Products Meal Conveyor Vent 220 (into 204A)
19. Specialty Products Cond. Bean Convey 221 (into 204A)
20. Specialty Products Extracted Flake Convey 222 (into 204A)
21. Flour Pak Transfer 302
22. Flour Grind Transfer 303-304
23. Raymond Entolater-Grind 305
24. Soy Grit Grind 306
25. Flake/Meal Storage/Transfer 307
26. Flake Transfer 308
27. Flake Storage 309
28. Flake Transfer 1 - 310/310A
29. Bean Cleaning 311
30. Flour Grinding 312
31. Flake Transfer 3/4 313-314
32. Flour Grinding 315
33. Flour Grind/Transfer 316-317
34. Grit Grind/Transfer 2 306 321
35. Grit Bag Packing 323
36. (8) Bin Vents Flour Pak Transfer 324
37. TVP Scrap Storage 325
38. (DT) Flour Pak Transfer 327
39. Flour Bag Packing 328
40. Fuel Oil Storage Tank 602
41. Hexane Storage Tank 604
42. Diesel Fuel Tank 605
43. Gas Boilers 1 and 2
44. Bean Flake Transfer 501
45. Scrap Flake Transfer 502
46. Extruded Product Transfer 507

47. Dryers 508/509/510
48. Coolers 511/512
49. Extruded Product Transfer 513/514/515
50. Scrap Transfer Separator 519
51. Cooler/Dryer 6 518
52. Flour Product Receiving 318A
53. Flour Grinding I 350
54. Flour Grinding II 360
55. Bean/Corn Dump Pit Truck Road
56. Alcohol/Germ Fructose Truck Road
57. Protein Isolate Packaging

DES:TDP:jar

State Joint Construction and Operating Permit 99030056

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Chris Janick, Environ. Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99030056
I.D. No.: 115015AAE
Applicant's Designation: PREPFILTER
Date Received: March 15, 1999
Subject: Secondary Dehulling Baghouse Replacement
Date Issued: May 25, 1999
Operating Permit Expiration Date: May 25, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of secondary dehulling baghouse replacement as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based on no increase in emissions over those already permitted in permit number 72110964 for the Decatur East Plant.

3a. The Permittee shall maintain records of the following items for the facility:

   i. The operating pressure drop across each baghouse during normal plant operating conditions, at least once a day. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer’s specifications.

   ii. The performance of the dust control systems shall be inspected for proper operation during normal plant operating conditions, at least once each week, with date, time and observations.

b. These records shall be retained for two years and shall be available for inspection by the Illinois EPA upon request.

4. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ADM Decatur West Plant Permits

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in theses attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

State Construction Permit 03060020

CONSTRUCTION PERMIT

PERMITTEE

ADM - Decatur West Plant
Attn: Josh Mohr
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 03060020 I.D. No.: 115015AAE
Application's Designation: Date Received: June 9, 2003
Subject: Condenser
Date Issued: June 24, 2003
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of cold water condenser in the soybean extraction plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the condenser in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on no increase of emissions from the condenser because it will better capture and control emissions at the facility while not increasing production levels.

3. The Permittee may operate the condenser under this construction permit until its CAAPP permit is issued.

If you have any questions on this permit, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Joint Construction and Operating Permit 03050045

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

ADM - Decatur West Refinery
Attn: Josh Mohr
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 03050045 I.D. No.: 115015AAE
Applicant's Designation: Date Received: May 15, 2003
Subject: Hydrogen Plant
Date Issued: June 3, 2003 Operating Permit Expiration Date: June 3, 2008
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a hydrogen plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Hydrogen Plant
Control: None

1.1.1 Description

The hydrogen plant will use natural gas and vent gas as the feedstock to produce the gaseous hydrogen. Emissions result from the heater that supplies the energy for this process.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Reformer Heater	Reformer Process Heater	None

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected heater" for the purpose of these unit-specific conditions, is the heater as described in Conditions 1.1.1 and 1.1.2.

b. i. The Permittee shall not cause or allow the emissions of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from each affected heater [35 IAC 212.123(a)].

ii. The emission of smoke or other particulate matter from each affected heater may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period [35 IAC 212.123(b)].

c. The Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from each affected heater to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

1.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected heater not being subject to 40 CFR 60 Subpart Dc, NSPS for Small Industrial - Commercial-Institutional Steam Generating Units because the affected heater is a process heater as defined in Subpart Dc.

b. The source has addressed the applicability and compliance of 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The limits established by this permit are intended to ensure that the equipment addressed in this construction permit does not constitute a major modification of the source pursuant to these rules.

1.1.5 Operational and Production Limits and Work Practices

a. The affected heater shall be equipped, operated, and maintained with low NO_x burners. This burner shall be operated and maintained in conformance with good air pollution control practices.

b. The rated firing rate of the affected heater shall not exceed 21 MBtu/hr for the combustion of natural gas and 9.75 MBtu/hr for the combustion of vent gas (30.75 MBtu/hr, total).

c. Natural gas, vent gas, or a combination of such fuels shall be the only fuels fired in the affected heater.

1.1.6 Emission Limitations

a. Emissions combined from the affected heater shall not exceed the following limits:

Pollutant	Emissions (Ton/Mo)	Emissions (Tons/Year)
NO_x	0.73	8.68
SO_2	0.02	0.16
CO	1.84	22.08
VOM	0.13	1.45
PM/PM_{10}	0.17	2.00

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected heater to demonstrate compliance with Conditions 1.1.3 and 1.1.6:

a. Rated firing rate of the affected heater;

b. Fuel usage, by type, on a monthly basis; and

c. NO_x, CO, VOM, SO_2, PM and PM_{10} emissions from the affected heater (tons/month and tons/year).

1.1.10 Reporting Requirements

The Permittee shall notify the Illinois EPA of deviations of the affected heater with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

a. Compliance with the emission standards specified in Condition 1.1.3(b) and (c) is considered inherent in the normal operation of the affected heater firing natural gas, vent gas, or a mixture of such fuels.

b. Compliance with the emission limits in Condition 1.1.6 for the affected heater shall be based on the operating records required by Condition 1.1.9 and appropriate emission factors. For this purpose, the following factors may be used if the affected heater is operating normally.

i. Natural Gas Combustion:

Pollutant	Emission Factor (Lbs/MBtu)
NO_x	0.033
CO	0.084
VOM	0.0055
PM/PM_{10}	0.0076
SO_2	0.0006

ii. Vent Gas Combustion:

Pollutant	Emission Factor (Lbs/MBtu)
NO_x	0.132
CO	0.336
VOM	0.022
PM/PM_{10}	0.0304
SO_2	0.0024

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this permit, please contact Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:psj

cc: Region 3

State Joint Construction and Operating Permit 02060058

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02060058 I.D. No.: 115015AAE
Applicant's Designation: VEGGIE OVEN
Date Received: June 20, 2002
Subject: Impingement Oven
Date Issued: July 25, 2002 Operating Permit Expiration Date: July 25, 2007
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of an impingement oven in the Specialty Food Ingredients Plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the oven, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

2a. The oven's firing rate shall not exceed 3,000,000 Btu/hour.

b. Natural gas shall be the only fuel used for the oven.

3a. i. Nitrogen oxides (NO_x), carbon monoxides (CO), and volatile organic materials (VOM) emissions from the oven shall not exceed the following limits:

NO_x Emissions		VOM Emissions		CO Emissions	
(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)
0.3	1.32	0.16	0.722	0.25	1.11

ii. Compliance with these annual limits shall be determined from a running total of 12 months of data.

b. This permit is issued based on negligible emissions of particulate matter (PM) and sulfur dioxides (SO_2) from the oven. For this purpose, emissions from the oven shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

4a. The Permittee shall keep a file documenting the oven's rated maximum firing rate.

b. The Permittee shall maintain logs of inspection, maintenance, and repairs for the oven to demonstrate good air pollution control practice.

5. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

6. The Permittee shall promptly notify the Illinois EPA, of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

7. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Josh Mohr - Decatur West Refinery
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 04040045 I.D. No.: 115015AAE
Applicant's Designation: EXPAN PROJECT Date Received: April 18, 2004
Subject: Expansion Project at ADM's Decatur West Refinery
Date Issued: June 7, 2004
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of expansion of the West oil refinery, including new and modified boilers and new and modified silos and day bins as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. General Conditions

   a. This permit authorizes the expansion of the Decatur West Refinery, including installation of new units and modifications of existing units.

   b. This permit does not authorize modifications elsewhere at the source.

2. Emissions of volatile organic material (VOM) from the processing and handling of vegetable oil at the refinery shall not exceed 83.0 ton/year. This represents an increase in VOM emissions of 30.5 ton/year compared to average annual emissions of VOM in 2002 and 2003, as presented by the Permittee in the application. Note: Certain VOM emissions from raw oil produced at the Decatur extraction plant are also accounted for as part of the extraction process at the source.

3. This permit is issued based on the expansion of the refinery not constituting a major modification subject to the federal Prevention of Significant Deterioration rules (PSD) 40 CFR 52.21, because the total emissions of the refinery are less than the PSD significant emission thresholds.

4. This permit is issued based on the vegetable oil refinery not being subject to the National Emission Standard for Hazardous Air Pollutants

(NESHAP), 40 CFR Subpart GGGG, because this NESHAP only addresses extraction of vegetable oil from grain or seeds and does not address subsequent refining of the vegetable oil.

5a. Two copies of submittals and reports required by this permit shall be made to the Illinois EPA at the following:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/782-6348

b. One copy of the report shall be made to the Illinois EPA at the following:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville Illinois 62234
Telephone: 618/346-5120 Fax: 618/346-5155

6. The affected boilers and diatomaceous earth and bleaching clay storage silos and filters may be operated under this construction permit until they are incorporated into the source's CAAPP permit.

1.0 Unit Specific Conditions

1.1 Natural Gas Fired Boilers

1.1.1 Description

Dedicated natural gas fired boilers and heaters are used to produce steam and heat for the oil refining process.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU CR-03	Natural Gas-Fired Boiler Refinery Boiler A (Nom. Capacity 13.5 mmBtu/Hr) installed 1991	None
EU CR-06	Natural Gas-Fired D Dowtherm (Nom. Capacity 8.6 mmBtu/Hr) installed 1974	None

Emission Unit	Description	Emission Control Equipment
EU CR-07	Natural Gas-Fired (Nom. 15.0 mmBtu/Hr) installed 1995	None
EU CR-08	Natural Gas-Fired (Nom. Capacity 20 mmBtu/Hr) New	None
EU CR-09	Natural Gas-Fired (Nom. Capacity 13.5 mmBtu/Hr) New	None

1.1.3 Applicable Provisions and Regulations

a. An "affected boiler" for the purpose of these unit specific conditions is a boiler described in Conditions 1.1.1 and 1.1.2. As each affected boiler except EU CR-06 has a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr, and is constructed after June 9, 1989, each affected boiler other than EU CR-06 is also an affected facility subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc.

b. The emission of carbon monoxide (CO) into the atmosphere from each affected boiler other than EU CR-06 shall not exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

c. Each affected boiler is subject to 35 IAC 212.123(a) which provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

1.1.4 Non-Applicability of Regulations of Concern

There are no applicable requirements for particulate matter or sulfur dioxide pursuant to 40 CFR 60, Subpart Dc because the boilers are firing natural gas.

1.1.5 Operational and Production Limits and Work Practices

a. Each affected boiler shall only be fired with natural gas as the fuel.

b. i. The total usage of natural gas of affected boilers and heaters shall not exceed 620 million ft^3/year, total.

ii. Compliance with the annual limits shall be determined from the running total of 12 months of data.

c. At all times, the Permittee shall, to the extent practicable, maintain and operate each affected boiler in a manner consistent with good air pollution control practices for minimizing emissions, pursuant to 40 CFR 60.11(d).

1.1.6 Emission Limitations

a. Emissions and operation of affected boiler shall not exceed the following limits:

Emission Unit	Pollutant							
	NO_x		CO		VOM		PM	
	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)
EU CR-03	1.35	5.91	1.13	4.95	0.08	0.35	0.11	0.48
EU CR-06	0.86	3.76	0.72	3.15	0.05	0.22	0.07	0.30
EU CR-07	1.50	6.57	1.26	5.52	0.08	0.36	0.11	0.50
EU CR-08	2.00	8.76	1.68	7.36	0.11	0.48	0.15	0.66
EU CR-09	1.35	5.91	1.13	4.95	0.08	0.35	0.11	0.48
Totals	---	30.91	---	25.93	---	1.76	---	2.42

These limits are based on the maximum firing rate, standard emission factors, and continuous operation (8,760 hours/year).

b. This permit is issued based on negligible emissions of SO_2 for each affected boiler. For this purpose, emissions of this pollutant shall not exceed 0.1 lb/hour and 0.44 tons/year.

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

a. The Permittee shall keep a file that contains the maximum rated input of each affected boiler.

b. The Permittee shall maintain the following operational records:

i. Total natural gas usage for affected boiler (million ft^3/month);

ii. The amount of vegetable oil processed by the refinery (million pounds/month) and the VOM (hexane) content of the raw oil as determined from representative manufacturing data.

c. The Permittee shall maintain the following emission records:

i. Records of the NO_x, CO, PM, and VOM emissions from each affected boiler, based on fuel consumption and the applicable emission factors, with supporting calculations (lb/month and tons/year).

ii. VOM emissions attributable to processing oil in the refinery, with supporting calculation (pounds/month and tons/year).

1.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of noncompliance with applicable permit requirements as follows: Notification within 30 days shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken, and be accompanied by a copy of any records for such incident.

b. The Permittee shall fulfill all applicable notification and reporting requirements for the NSPS 40 CFR 60.7 and 60.4(c), including notification of startup of new affected boilers.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

1.1.12 Compliance Procedures

a. Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 1.1.9 and appropriate emission factors:

b. Emissions from the boilers may be calculated based on the following emission factors, if properly operated:

Pollutant	Emission Factor ($lb/10^6\ ft^3$)
PM	7.6
VOM	5.5
NO_x	100.0
CO	84.0

These are the emission factors for natural gas combustion in small boilers equipped with low-NO_x burners (<100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, July 1998.

1.2 Silos and Bins with Filters

1.2.1 Description

The silos and bins are used to handle diatomaceous earth and bleaching clay used in the processing of vegetable oil in the refinery. The purpose of the expansion project is to provide better utilization of the plant.

1.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU CR-10	Diatomaceous Earth Storage Silo	Filter CE CR-10
EU CR-11	Bleaching Clay Storage Silo	Filter CE CR-11
EU CR-12	Bleaching Clay Storage Silo	Filter CE CR-12
EU CR-13	Day Bin for Bleaching Clay System 1	Filter CE CR-13
EU CR-14	Day Bin for Bleaching Clay System 2	Filter CE CR-14

1.2.3 Applicability Provisions and Applicable Regulations

a. An affected unit for the purpose of these unit specific conditions is a silo or bin with a filter as described in conditions 1.2.1 and 1.2.2.

b. Each affected unit is subject to 35 IAC 212.123(a) which provides that no person shall cause or allow

the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

1.2.4 Non-Applicability of Regulations of Concern

None

1.2.5 Operational And Production Limits And Work Practices

At all times, the Permittee shall, to the extent practicable, maintain and operate affected units and associated filters in a manner consistent with good air pollution control practice for minimizing emissions.

1.2.6 Emission Limitations

a. Each affected unit shall be equipped with a filtration air pollution control system designed and operated to meet an outlet grain loading of no more than 0.01 gr/scf.

b. This permit is issued based on negligible emissions of particulate matter from each affected unit. For this purpose, particulate matter emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.

1.2.7 Testing Requirements

None

1.2.8 Monitoring Requirements

None

1.2.9 Recordkeeping Requirements

a. The Permittee shall keep a file for each affected unit and filtration system, which includes the performance specification, operating procedure, and recommended maintenance procedures for each filtration system.

b. The Permittee shall maintain records of the following items:

i. Total amount of diatomaceous earth and bleaching clay received at the refinery (tons/month and tons/year).

ii. Estimated emissions during any period of time when a filtration system does not meet its performance specification.

c. The Permittee shall maintain logs of inspection, maintenance, and repair for the filters controlling the affected units

1.2.10 Reporting Requirements

a. The Permittee shall notify the Illinois EPA of the type, manufacturer, and model number of the filtration system for each affected unit once it has been selected.

b. The Permittee shall promptly notify the Illinois EPA of noncompliance with applicable permit requirements as follows: Notification within 30 days shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken, and be accompanied by a copy of any records for such incident.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland
Attn: Josh Mohr
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 03110036 I.D. No.: 115015AAE
Applicant's Designation: Date Received: March 4, 2004
Subject: Expeller for West Germ Processing Plant
Date Issued: March 9, 2004
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modification of the west germ processing plant by the construction of a corn germ expeller as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the west germ processing plant, including the new expeller, in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.

3. The amount of corn germ handled at the west germ processing plant shall not exceed 0.12 million tons/month and 1.2 million tons/year.

4a Particulate matter (PM) emissions from the west germ processing plant shall not exceed the following limits:

	PM		PM_{10}	
Unit	**Lb/Hr**	**Ton/Yr**	**Lb/Hr**	**Ton/Yr**
Elevator A Unload/Transfer	0.51	2.23	0.51	2.23
Corn Germ Conditioning/Flaking	0.8	3.5	0.8	3.5
Corn Germ Expeller Vent	1.73	7.58	1.73	7.58
Corn Germ Expeller Discharge	2.57	11.26	2.57	11.26
Corn Germ Expander	0.52	2.28	0.52	2.28
Corn Germ West DTDC	1.28	5.61	1.28	5.61
Corn Germ South DTDC	1.39	6.09	1.39	6.09
Corn Germ Meal Truck Loadout	0.41	0.80	0.41	0.80
Total	---	39.35	---	39.35

b. This permit is issued based on the modification not being subject to PSD requirements for PM/PM_{10} because the net increase is less than 15 tons/year. Previous past actual PM emissions were 30.72 tons/year and new total is 39.35 tons/year for an increase of 8.63 tons.

5a. The emission units in the west germ processing plant shall be operated to comply with the particulate matter emission standard of 35 IAC 212.321.

b. The plant shall be operated to comply with the applicable standard for hazardous air pollutants (HAP) in 40 CFR 63 Subpart GGGG, National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production. This standard limits loss of organic solvent from the plant to 0.4 gallon/ton of corn germ, on a 12-month rolling average, beginning April 2004 [40 CFR 63.2840].

c. The plant shall be operated to comply with applicable requirements under the Consent Decree entered into by the Permittee with the United States and State of Illinois, in the United State District Court for the Central District of Illinois, United States v. Archer Daniels Midland Company, Civil Action No. 03-2006. In particular, this decree sets an interim limit of 0.31 gallon/ton for organic solvent loss from the plant (Paragraph 47).

6a. This permit is issued based on the west germ processing plant being designated as a Clean Unit for emissions of VOM. [40 CFR 52.21(x)] The change in VOM emission with this project, i.e., the addition of another expeller, is not addressed because of Clean Unit Status. In this regard, a PSD permit was issued for the plant in the last 10 years (Construction Permit 95050124), which limits VOM emissions to no more than 0.52 gallons per ton of corn germ crush. No changes are being made to VOM emission limits or work practices that were established as BACT.

b. This permit is issued based on the design of the west germ processing plant as related to VOM emissions, being consistent with the design addressed by Permit 95050124.

c. This permit does not revise or relax any limitations or requirements related to VOM or hexane contained in Construction Permit 95050124, e.g., annual hexane consumption continues to be limited to 1709.7 tons per any 12-month period, pursuant to Construction Permit 95050124, Condition 4.

7a. Within 180 days after initial start up of the new corn germ expeller, the Permittee shall at its own expense, conduct tests for PM emissions and opacity from the corn germ expellers in accordance with the applicable test methods and procedures as identified below.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM/PM_{10})	USEPA Method 5
Opacity	USEPA Method 9

b. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:

   i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

   ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

   iii. The specific determinations of emissions and operation, which are intended to be made, including sampling and monitoring locations.

   iv. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.

   v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

   i. A summary of results.

   ii. General information.

   iii. Description of test method(s), including description of sample point sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information, e.g., equipment feed rate.

B. Control equipment information, i.e., equipment condition and operating parameters during testing.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

8. The Permittee shall keep the following records for the plant:

a. Logs of inspection, maintenance, and repairs for the expeller, including the cyclone, to demonstrate good air pollution control practice.

b. Throughput of corn germ (tons/month and tons/year).

c. Records for upsets or deviations in operation of processing plant that would increase PM emissions, with estimate of the excess emissions and supporting calculations.

d. The annual PM emissions for each month of the previous calendar year based on throughput and applicable factors and formulas with supporting calculations.

9. The Permittee shall promptly notify the Illinois EPA, of noncompliance with the permit requirements. Reports shall describe the probably cause of such deviations and any corrective actions or preventive measures taken.

10. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

11. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

12. The Permittee may operate the west germ processing plant with an additional expeller under this construction permit until its CAAPP permit is issued.

Please note this permit has been revised to lower the amount of corn germ handled.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT - REVISED

PERMITTEE

ADM - Decatur West Refinery
Attn: Josh Mohr
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 03050045
Applicant's Designation:
Subject: Hydrogen Plant
Date Issued: March 9, 2004

I.D. No.: 115015AAE
Date Received: March 4, 2004

Operating Permit Expiration Date: June 3, 2008

Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a hydrogen plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Hydrogen Plant
Control: None

1.1.1 Description

The hydrogen plant will use natural gas and vent gas as the feedstock to produce the gaseous hydrogen. Emissions result from the heater that supplies the energy for this process.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Reformer Heater	Reformer Process Heater	None

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected heater" for the purpose of these unit-specific conditions, is the heater as described in Conditions 1.1.1 and 1.1.2.

b. i. The Permittee shall not cause or allow the emissions of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from each affected heater [35 IAC 212.123(a)].

ii. The emission of smoke or other particulate matter from each affected heater may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period [35 IAC 212.123(b)].

c. The Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from each affected heater to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

1.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected heater not being subject to 40 CFR 60 Subpart Dc, NSPS for Small Industrial - Commercial-Institutional Steam Generating Units because the affected heater is a process heater as defined in Subpart Dc.

b. The source has addressed the applicability and compliance of 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The limits established by this permit are intended to ensure that the equipment addressed in this construction permit does not constitute a major modification of the source pursuant to these rules.

1.1.5 Operational and Production Limits and Work Practices

a. The affected heater shall be equipped, operated, and maintained with low NO_x burners. This burner shall be operated and maintained in conformance with good air pollution control practices.

b. The rated firing rate of the affected heater shall not exceed 33.0 mmBtu/hr for the combustion of natural gas and vent gas combined.

c. Natural gas, vent gas, or a combination of such fuels shall be the only fuels fired in the affected heater.

1.1.6 Emission Limitations

a. Emissions combined from the affected heater shall not exceed the following limits:

Pollutant	Emissions (Ton/Mo)	Emissions (Tons/Year)
NO_x	2.55	30.52
SO_2	0.05	0.56
CO	6.57	78.76
VOM	0.44	5.25
PM/PM_{10}	0.61	7.22

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected heater to demonstrate compliance with Conditions 1.1.3 and 1.1.6:

a. Rated firing rate of the affected heater;

b. Fuel usage, by type, on a monthly basis; and

c. NO_x, CO, VOM, SO_2, PM and PM_{10} emissions from the affected heater (tons/month and tons/year).

1.1.10 Reporting Requirements

The Permittee shall notify the Illinois EPA of deviations of the affected heater with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

a. Compliance with the emission standards specified in Condition 1.1.3(b) and (c) is considered inherent in the normal operation of the affected heater firing natural gas, vent gas, or a mixture of such fuels.

b. Compliance with the emission limits in Condition 1.1.6 for the affected heater shall be based on the operating records required by Condition 1.1.9 and appropriate emission factors. For this purpose, the following factors may be used if the affected heater is operating normally.

i. Natural Gas Combustion:

Pollutant	Emission Factor (Lbs/mmBtu)
NO_x	0.093
CO	0.24
VOM	0.016
PM/PM_{10}	0.022
SO_2	0.0017

ii. Vent Gas Combustion:

Pollutant	Emission Factor (Lbs/mmBtu)
NO_x	0.29
CO	0.74
VOM	0.05
PM/PM_{10}	0.07
SO_2	0.01

It should be noted that this permit has been revised to increase the firing rate of the reformer heater.

If you have any questions on this permit, please contact Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:psj

cc: Region 3

State Joint Construction and Operating Permit 02050010

JOINT CONSTRUCTION AND OPERATING PERMIT - NESHAP SOURCE - REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle Bublitz
3883 Faries Parkway
Decatur, Illinois 62526

Application No.: 02050010
Applicant's Designation: EXTRACTOR
Subject: DTDC/Distillation Modifications, Replacement Extractor
Date Issued: June 2, 2003

I.D. No.: 115015AAE
Date Received: April 15, 2003
Operating Permit Expiration Date: July 18, 2007

Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a replacement of the existing deep-bed extractor with a shallow-bed extractor, alterations to the existing desolventizer-toaster-dryer-cooler (DTDC) including the installation of additional desolventizing decks, and replacement of several condensers in the solvent recovery system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Vegetable Oil Production Process
Control: Mineral Oil Scrubber, Dust Collectors

1.1.1 Description

The Permittee is making changes to its West soybean plant, in which it processes soybeans to recover soybean oil and produce soybean meal for animal consumption. The oil extraction process consists of "washing" soybean flakes with solvent (hexane). The source is replacing the existing deep-bed extractor with a newer shallow-bed extractor.

The soybean flakes leaving the extractor, which have adsorbed some solvent, are desolventized in the desolventizer toaster where steam is used to drive off the solvent. The toasted flakes then pass to a dryer, where excess moisture is removed by heat and then to a cooler where ambient air is used to reduce the temperature of the flakes. As part of this application, several desolventizing decks will be replaced and added in the

existing desolventizer-toaster-dryer-cooler (DTDC) to improve the effectiveness of solvent removal so that less solvent is emitted from the dryer and cooler. Solvent vapors are recovered from the extractor and desolventizer-toaster by a number of condensers and a mineral oil scrubber. The recovered solvent is processed for reuse. Several condensers will be replaced.

The particulate emissions from the dryer and cooler are captured and exhausted to a dust collector, which will recover product and reduce emissions.

The amount of hexane emitted is determined by a material balance calculating the amount of hexane used from the amount received and changes in the amount stored.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Vegetable Oil Production Process	Vegetable Oil Production Process Including Extractor, Desolventizer-Toaster-Dryer-Cooler and Ancillary Equipment	Mineral Oil Scrubber, Dust Collectors

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected plant" for the purpose of these unit-specific conditions, is the modified vegetable oil production process described in Conditions 1.1.1 and 1.1.2.

b. i. The affected plant is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) for Solvent Extraction for Vegetable Oil Production, 40 CFR 63 Subparts A and GGGG. The Permittee must comply with all applicable requirements of Subparts A and GGGG no later than the compliance date of these standards, i.e., April 12, 2004.

ii. This permit is issued based on the modifications addressed by this permit being classified as a significant modification as defined in 40 CFR 63.2872 and the modifications not constituting reconstruction. Accordingly, the affected plant will remain an

existing source for purposes of 40 CFR 63, Subpart GGGG.

c. i. The affected plant is subject to 35 IAC 212.321(a), which provides that the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, shall not exceed the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

ii. A. The Permittee shall not cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from the affected plant except as provided below [35 IAC 212.123(a)].

B. The emission of smoke or other particulate matter from the affected plant may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by the Permittee, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period [35 IAC 212.123(b)].

1.1.4 Non-Applicability of Regulations of Concern

a. The source has addressed the applicability and compliance of 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The provisions in this permit are intended to ensure that the modification addressed in this construction permit does not constitute a major modification pursuant to these rules. In particular:

i. With respect to emissions of volatile organic material (VOM), the modifications to the affected plant are intended to reduce the solvent loss rate, to facilitate compliance with 40 CFR 63 Subpart GGGG and future usage of solvent is limited to a level that is below historical levels in 2000 and 2001 (1017 tons compared to 1033 tons) to reflect this reduction in VOM emissions (Refer to Condition 1.1.6(c)(i)).

ii. With respect to emissions of particulate matter, the operation and emissions of the affected plant are being limited to ensure that the increases are less than significant, e.g., an increase of at most 12.7 tons/year of PM_{10} compared to the 15 tons/year significant emission threshold for PM_{10}. In the event that emission testing required by Condition 1.1.7 identifies significant discrepancies between emissions as measured and emissions as estimated by engineering calculations, the Permittee shall expeditiously apply for appropriate revisions to this permit to ensure that it effectively constrains the affected plant so that it is not a major modification or shall undergo PSD permitting for particulate matter.

b. This permit is issued based on the affected plant not being subject to 35 IAC 215 Subpart K, Use of Organic Material, because hexane is not a photochemically reactive material, as defined in 35 IAC 211.4690.

1.1.5 Operational Limits

a. No later than April 12, 2004, the affected plant shall be operated to comply with the standards and compliance requirements specified at 40 CFR 63.2840 and 63.2850, respectively, for a conventional soybean processing plant.

b. The Permittee shall follow good air pollution control practices for the affected plant and associated control devices, including periodic inspection, routine maintenance and prompt repair of defects.

c. Operation of the affected plant shall not exceed the following limits:

i. Organic solvent usage shall not exceed 102 tons/month and 1017 tons/year. Compliance with annual limit shall be determined from the amount of organic solvent used in the affected plant, based on inventory records, compiled on a monthly basis with the annual compliance determination made from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

ii. A. Quantity of soybeans crushed shall not exceed 6,022,500 bushels/month and 60,225,000 bushels/year; and

B. Notwithstanding the above, the quantity of soybeans crushed shall not exceed 5,200,000 bushels/month and 52,000,000 bushels/year until the emission testing required by Condition 1.1.7 has been submitted and the report required by Condition 1.1.10(a) has been submitted to the Illinois EPA.

1.1.6 Emission Limitations

a. VOM emissions from the affected plant shall not exceed 102 tons/month and 1017 tons/year. Compliance with these emission limits shall be determined assuming that all organic solvent used is lost to the atmosphere as emissions from the affected plant (See also Condition 1.1.5(c)(i)).

b. Emissions of PM and PM_{10} from the affected plant shall not exceed the limits in Table 1.

1.1.7 Testing Requirements

a. i. Within 60 days after modification of the DTDC, but not later than 180 days after initial startup of the DTDC, the PM emissions of the DTDC and at least five other emission units at the affected plant, as addressed by Table 1, shall be measured during conditions which are representative of typical emissions as follows. These other units shall include at least one unit handling grain, one unit processing soybeans, one unit handling meal and one unit handling fixed pellets.

ii. Not later than March 28, 2003, the PM emissions from the Rail Receiving source shall be measured during conditions which are representative of typical emissions as follows. Note: The Rail Receiving source may be considered one of the five "other emission unit" as specified in Condition 1.1.7(a)(i).

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter	USEPA Method 5 or 201A

c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

vi. The format and content of the Source Test Report.

d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results

ii. General information

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule

iv. Detailed description of test conditions, including

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption

B. Control equipment information, i.e., equipment condition and operating parameters during testing, and

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration

vi. An explanation of any discrepancies among individual tests or anomalous data

e. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five working days prior to the actual date

of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

1.1.8 Monitoring Requirements

The Permittee shall monitor the following information for the mineral oil scrubber:

a. Pressure drop across the scrubber (inches of water);

b. Inlet gas temperature (Degrees F);

c. Outlet gas flow rate (scfm); and

d. Scrubbant rate (gallons/minute).

1.1.9 Recordkeeping Requirements

a. The Permittee shall maintain the following operating records for the affected plant:

i. Amount of soybeans processed (bushels/month and bushels/year);

ii. Amount of organic solvent used from inventory records (tons/month and tons/year);

iii. HAP content of organic solvent with supporting documentation; and

b. The Permittee shall maintain the following records for air pollution control equipment:

i. Records of the monitoring activity conducted pursuant to Condition 1.1.8;

ii. Records of the pressure drop of each filter-type dust collector measured on at least a weekly basis; and

iii. Operating and maintenance log(s) for the scrubber and dust collectors.

c. The Permittee shall maintain the following emission records for the affected plant:

i. PM emissions (tons/month and tons/year), with supporting calculations;

ii. Beginning September 2003, monthly HAP Compliance ratio, with supporting calculations; and

iii. Observations of opacity made using USEPA Method 9 by the Permittee's personnel or by qualified observers on its behalf.

d. No later than April 12, 2004, the Permittee shall begin complying with the recordkeeping requirements specified at 40 CFR 63.2860, including the following:

i. Pursuant to 40 CFR 63.2863, the records must be in a form suitable and readily available for review in accordance with 40 CFR 63.10(b)(1).

ii. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

iii. The Permittee shall keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with 40 CFR 63.10(b)(1). The Permittee may keep the records off-site for the remaining 3 years.

1.1.10 Reporting Requirements

a. Prior to operating the affected plant at rates in excess of those allowed by Condition 1.1.5(c)(ii)(B), the Permittee shall submit a detailed report to the Illinois EPA confirming that the plant complies with the particulate matter emission limits in Table 1 <u>and</u> that these limits are adequate to ensure that the plant will not undergo a major modification for particulate matter for purposes of PSD if operated at the rates allowed by Condition 1.1.5(c)(ii)(A).

b. The Permittee shall notify the Illinois EPA of noncompliance of the affected plant with the permit requirements as follows. Reports shall describe the

probable cause of such deviations, and any corrective actions or preventive measures taken.

c. No later than April 12, 2004, the Permittee shall begin complying with the reporting and notification requirements specified at 40 CFR 63.2860.

d. Two copies of reports and notifications required by this permit shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

Compliance with the emission limits in Condition 1.1.6(a) shall be based on the recordkeeping requirements in Condition 1.1.9 and a material balance calculation.

Please note that the Permittee shall update its CAAPP application to include this new equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information to address the affected extractor.

It should be noted that this permit has been revised to correct the permitted emissions for the emission units in Table 1 based on improved emission data.

If you have any questions on this permit, please call Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:jar

cc: Region 3
Compliance and Enforcement Section

Table 1: Particulate Matter Emission Limits

Emission Unit	Unit I.D.	*	Particulate Matter			Particulate Matter$_{10}$		
			(Lb/Ton)	(Lb/Hr)	(Ton/Yr)	(Lb/Ton)	(Lb/Hr)	(Ton/Yr)
Grain Receiving - Process	UO05-01, 07	r	0.00040	0.61	0.41	0.00040	0.61	0.41
- Fugitive**			0.00215	3.23	2.14	0.00215	3.23	2.14
Feed Mill Pelleting Coolers	HG05-01	c	0.06797	15.00	12.65	0.05097	11.25	9.49
Elevator Tunnel Conveying	UO05-06	r	0.00018	0.27	0.32	0.00010	0.15	0.18
Bean Transfer/Hull Grind	SP05-01	c	0.00122	0.27	1.18	0.00072	0.16	0.72
DTDC	SE05-01	c	0.01124	2.48	10.84	0.01124	2.48	10.84
Meal Screen/Grind/Transfer	MP05-01	c	0.00906	2.00	11.20	0.00453	1.00	5.60
Elevator Gallery Conveying	UO05-05	r	0.00023	0.34	0.75	0.00006	0.09	0.19
Dehulling	SP15-01	c	0.01799	3.97	17.40	0.01169	2.58	11.31
Fluid Bed Dryer	SP20-01	c	0.00204	0.45	1.99	0.00204	0.45	1.99
Flaking Rolls	SP20-02	c	0.00163	0.36	1.67	0.00104	0.23	1.08
Meal Loadout - Process	MP05-02	e	0.00197	2.31	1.90	0.00049	0.58	0.48
- Fugitive**			0.01034	12.15	10.00	0.00259	3.04	2.50
Expander Coolers	SP30-01	c	0.00933	2.06	9.03	0.00607	1.34	5.87
Elevator Center Conveying	UO05-04	r	0.00012	0.18	0.15	0.00007	0.10	0.08
Total:			----	----	81.63	----	----	52.88

Notes:

* The emission factors are expressed in terms of the tons of soybeans received or handled by the elevator (r), the tons of whole soybeans processed or crushed in the affected plant (c), and, for soybean meal, the tons of whole soybeans represented by the meal that is being handled (e). The conversion factor for soybeans is 60 pounds per bushel.

** This factor accounts for fugitive emissions as defined by the NSPS for grain elevators, 40 CFR 60 Subpart DD, i.e., emissions that are not collected by a capture system and exhausted through a control device. Capture efficiency is assumed to be 95%.

JMS:jar

State Joint Construction and Operating Permit 00110012

JOINT CONSTRUTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 60526

Application No.: 00110012
I.D. No.: 115015AAE
Applicant's Designation: BAGHOUSE
Date Received: November 6, 2000
Subject: Meal Loadout Baghouse
Date Issued: December 13, 2000
Operating Permit Expiration Date: December 13, 2005
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a meal loadout baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Emissions and operation of the meal loadout baghouse shall not exceed the following limits:

PM Emissions	
(Tons/Month)	(Tons/Year)
0.71	7.10

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. Appropriate operating records shall be maintained to allow the Illinois EPA to review compliance with the limits in Condition 1.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KSL:jar

cc: Region 3

State Joint Construction and Operating Permit 00040014

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00040014
I.D. No.: 115015AAE
Applicant's Designation: FCPACK
Date Received: April 7, 2000
Subject: Soy Protein Packaging
Date Issued: June 28, 2000
Operating Permit Expiration Date: June 28, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a soy protein packaging system which includes a pneumatic conveyor and packer, filter receiver and dust collector as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	PM Emissions Lb/Hour	PM Emissions Ton/Yr
Filter Receiver	8,760	0.1	0.4
Dust Collector	8,760	0.3	1.3

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. Appropriate operating records shall be maintained to allow the Illinois EPA to review compliance with the limits in Condition 2.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 99020028

JOINT CONSTRUCTION AND OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99020028
I.D. No.: 115015AAE
Applicant's Designation: FIBERPELET
Date Received: July 5, 2002
Subject: Soy Fiber Pelletizing System
Date Issued: August 13, 2002 (See Condition 9)
Expiration Date: August 8, 2007
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a soy fiber pelletizing system with cyclone control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the soy fiber pelletizing system and associated control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

3a. The exhaust flow rate of the soy fiber pelletizing system shall not exceed 4,080 scfm.

b. Exhaust dust loading from the soy fiber pelletizing system shall not exceed 0.05 gr/scf.

4a. Particulate matter (PM) emissions from soy fiber pelletizing system shall not exceed 1.75 lb/hr and 7.7 tons/yr.

b. The soy fiber pelletizing system shall be operated to comply with the particulate matter emission standard of 35 IAC 212.321.

c. This permit is issued based on the soy fiber pelletizing system having a process weight rate of at least 1000 pounds per hour, so that the

applicable emission standards pursuant to 35 IAC 212.321 is at least 1.75 pound/hour.

5. The Permittee shall keep the following records for the soy fiber pelletizing system:

   a. The Permittee shall maintain logs of inspection, maintenance, and repairs for the soy fiber pelletizing system, including the cyclone, to demonstrate good air pollution control practice.

   b. The annual PM emissions for each month of the previous calendar year based on operating information and applicable factors and formulas with supporting calculations.

6. The Permittee shall promptly notify the Illinois EPA of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

8. Two (2) copies of required reports and notifications concerning equipment operation or repairs, maintenance, performance testing or a continuous monitoring system shall be sent to:

   Illinois Environmental Protection Agency
   Division of Air Pollution Control
   Compliance Section (#40)
   P.O. Box 19276
   Springfield, Illinois 62794-9276

   and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

   Illinois Environmental Protection Agency
   Division of Air Pollution Control
   2009 Mall Street
   Collinsville, Illinois 62234

9. Notwithstanding the issuance date specified on the face of this permit, this permit shall not take effect until the Permittee withdraws and the Board dismisses the appeal of the original permit for this system. (PCB No. 99-166 (Trade Secret))

This permit has been revised to establish operating limitations for this system that do not involve parameters that the Permittee has claimed as Trade Secrets, so as to resolve the above appeal.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Joint Construction and Operating Permit 97010045

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis, Sr. Env. Engr.
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97010045
I.D. No.: 115015AAE
Applicant's Designation: WESTPKGBLR
Date Received: January 21, 1997
Subject: Package Boiler - Low NO_x Burner Addition
Date Issued: April 8, 1997
Expiration Date: January 21, 1999
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of low NO_x burner installation for existing package boiler as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Natural gas shall be the only commercial fuel combusted in the above-referenced package boiler.

2. The total annual consumption of natural gas in the above-referenced package boiler shall not exceed 1,533 million cubic feet.

3a. The above-referenced package boiler shall not operate for more than 8,736 hours per year.

b. Emissions and operation of the above-referenced package boiler shall not exceed the following limits:

Natural Gas Usage		Nitrogen Oxides Emissions		Carbon Monoxide Emissions	
(scf/Hr)	(scf/Yr)	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)
196,700	1,533,000,000	10.4	38.3	7.22	6.7

These limits are based on the information in the permit application.

4a. Within 30 days of initial startup, the nitrogen oxides emissions of the boiler shall be measured during conditions which are representative of maximum emissions.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Nitrogen Oxides	USEPA Method 7

c. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized.

f. Satisfactory completion of these tests and compliance with the limitations of this permit shall be a prerequisite to the continuation under terms and conditions of this operation permit. This boiler currently has an operating permit under terms and conditions as covered in permit No. 85060030.

5a. The Permittee shall keep all records necessary to demonstrate compliance with the conditions set forth in this construction and operating permit. These records include, but are not limited to, records displaying total hours of operation, monthly records of fuel usage and all records required to prove compliance in the permit.

b. The Permittee shall keep these records for a period of two (2) years and make them available for inspection and copying by the Agency upon request.

c. Compliance with annual limits shall be determined from a running total of twelve (12) months of data.

6. Any required reports and notifications concerning equipment operation, performance testing or a continuous monitoring system shall be sent to the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

7. As a consequence of the above conditions, this permit is issued based on the addition of the above referenced package boiler not constituting a major modification in order to limit NO_x emissions to below those at which the Agency believes Prevention of Significant Deterioration rules, CFR 52.21 would apply. The emissions of NO_x are below the significance level of 40 tons/yr. This shall be accomplished by operating 207 million Btu per hour boiler with low NO_x burner as a package unit.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:sad

cc: Region 3
USEPA Region V

State Operating Permit 95050025

OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No: 95050025
I.D. No.: 115015AAE
Applicant's Designation: LECITHIN
Date Received: September 25, 2000
Subject: Deoiled Lecithin Plant
Date Issued: December 11, 2000
Expiration Date: December 11, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and /or air pollution control equipment consisting of Deoiled Lecithin Plant with solvent recovery system which includes storage tanks, separator, clay slurry tank, desolventizing, all with mineral oil scrubber control, and two dryers and packaging each with a baghouse as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Annual solvent usage, that is consumption of hexane used for lecithin production, shall not exceed 14,174 gallons per year.

b. Annual emissions of volatile organic material associated with lecithin production, that is hexane disappearance, shall not exceed 39.9 tons per year.

c. Total lecithin production shall not exceed 1,360 lbs/hour and 5,957 tons per year.

2a. Annual usage, that is consumption, of hexane for the Decatur West Soybean Solvent Extraction Plant shall not exceed 563,200 gallons.

b. Total annual emissions of volatile organic material from solvent usage at the soybean plant shall not exceed 1585.4 tons.

3a. Total annual solvent usage, that is consumption of hexane for all operations at the Decatur West Soybean Solvent Extraction Plant including the Lecithin Plant, shall not exceed 577,371 gallons.

b. Total annual emissions of volatile organic material, that is VOM disappearance, from solvent consumption at the Decatur West Soybean Solvent Extraction Plant shall not exceed 1,625.3 tons per year.

4a. The Permittee shall maintain and operate a solvent recovery system which shall condense at least 85 percent of solvent which would otherwise be emitted to the atmosphere.

b. All material storage and mixing tanks associated with lecithin production, except for the raw material storage and the crude lecithin storage tanks, shall be ducted to the solvent recovery system.

c. Emissions of Volatile Organic Material (VOM) from the raw material storage tanks and the crude lecithin storage tanks shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 tons per year for each.

5. Emissions of particulate matter (PM) from each item of equipment shall not exceed the following limitations:

Item of Equipment		PM (Lb/Hr)	PM (Ton/Yr)
Dryer (Baghouse)	ESO2	1.70	7.45
Packaging (Baghouse)	ESO3	0.90	3.90
Dryer (Baghouse)	ESO4	0.23	1.00
		Total	12.35

These limits are based on information provided in the permit application.

6. Compliance with annual limits shall be determined from a running total of twelve months of data.

7. The Permittee shall operate and maintain the mineral oil scrubber system in good working order at all times.

8a. As a minimum, the Permittee shall maintain records of the following items and other such items as necessary to allow the Illinois EPA to review compliance.

i. Quantity of fresh solvent used in Lecithin production, (lbs/day);

ii. Quantity of lecithin produced, (tons/month);

iii. VOM emissions from solvent consumption associated with lecithin production as determined by material balance, including amount of solvent added to the system, the amount of solvent in the system, and the amount of solvent leaving the system, (lbs/day);

iv. VOM emissions from solvent consumption at the Decatur West Soybean Solvent Extraction Plant, (lbs/day);

v. VOM emissions from the Lecithin Plant (lbs/day).

b. These records shall be retained for a period of at least three (3) years and shall be made available for inspection by the Illinois EPA upon request.

9. The issuance of this permit does not relieve the Permittee of the responsibility of complying with the provisions of the State of Illinois Rules and Regulations, Title 35, Subtitle C: Water Pollution Control, Chapter 1.

10. As a consequence of the above conditions, this permit is issued based upon the deoiled lecithin plant not constituting a major modification subject to the federal Prevention of Significant Deterioration of Air Quality Rules, 40 CFR 52.21, PSD.

11. This permit becomes effective upon the formal withdrawal of permit appeal PCB 96-49 filed with the Pollution Control Board.

Please note, this permit has been revised to allow the granulation fluid bed dryer, grinder and screening processes to exhaust to the ES04 baghouse and the removal of the ES05 baghouse without resulting in an increase in emissions.

Please note the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - Supplement to CAAPP Application along with all other appropriate information.

If you have any questions concerning this letter, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Operating Permit 72110962

OPERATING PERMIT - NSPS SOURCE - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 72110962
I.D. No.: 115015AAE
Applicants Designation: REPLACEMENT
Date Received: March 12, 1998
Subject: Decatur West Complex
Date Issued: March 19, 1998
Expiration Date: March 18, 2003
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a hydrogen gas plant with 12.0 MBtu/hr waste heat boiler and reformer, a soybean oil plant and corn germ plant with grain storage, grain drying operation with baghouse control, grain preparation, oil extraction, oil processing and refining, meal processing, meal loadout, cooling tower No. 2, boilers, dairy feed pelleting system controlled by four cyclones, and a new baghouse as described in the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Total corn germ throughput at the Decatur West Corn Germ Extraction Plant shall not exceed an average of 3200 tons per day on a rolling twelve month basis.

b. The total corn germ throughput at the Decatur West Corn Germ Extraction Plant shall not exceed 1,168,000 tons for any consecutive twelve month period.

c. Hexane consumption used for corn germ processing at the Decatur West Corn Germ Extraction Plant shall not exceed 0.52 gallons per ton of corn germ crush. Compliance with this limit shall be determined from a 180 day rolling average, calculated daily. This limitation represents the application of the Best Available Control Technology (BACT) as required by Section 165 of the Clean Air Act.

d. Emissions of Volatile Organic Material (VOM) from corn germ processing at the Decatur West Corn Germ Extraction Plant shall not exceed 1709.7 tons per year for any consecutive twelve month period.

2a. Annual usage, that is consumption, of hexane shall not exceed 556,200 gallons for the soybean plant. Compliance with this limit shall be determined from a running total of daily data.

b. Annual emissions of Volatile Organic Material shall not exceed 1585.4 tons for the soybean plant. Compliance with this limit shall be determined assuming that all hexane consumed is emitted to the atmosphere.

c. Emissions of Volatile Organic Material shall not exceed 0.0026 pounds per pound of conventional soybean crush pursuant to 35 Ill. Adm. Code 215.340(a).

3. Emissions of particulate matter from each DTDC unit shall not exceed the following limitations:

Item of Equipment	Particulate Matter Emissions (Lbs/Hour)	(Tons/Year)
DTDC #1	1.39	6.09
DTDC #2	0.56	2.44
DTDC #3	1.28	5.61

Total = 14.14 Tons/Year

These limits are based on the installation and operation of baghouses on DTDCs 1 and 2 as described in Construction Permit 95080102. Compliance with annual limits shall be determined from a running total of twelve months of data.

4a. Within 90 days after completion of construction and debugging of DTDC unit baghouses 1 and 2 as described in Construction Permit 95080102, the particulate matter emissions from drying and cooling sections of DTDC units 1, 2, and 3 shall be measured as follows by an approved testing service during conditions which are representative of maximum operation and emissions:

i. Testing of any other emission unit shall be conducted within 60 days of a written request from the Agency.

ii. The Agency may extend the period within which testing shall be performed for up to one year, based on a written request from the Permittee showing that the testing would not be representative of normal operation of the unit, e.g., the unit would be operating significantly below normal rate, the rate is still increasing significantly, or it is impractical to perform testing more rapidly, e.g., qualified testing services are already committed to other tests.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency:

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Particulate Matter	USEPA Method 5
PM_{10}	USEPA Method 201

c. At least 30 days prior to the actual date of testing, a written test plan shall be submitted to the Agency for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

iii. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

d. The Agency shall be notified in writing a minimum of 15 days prior to the expected date of these tests and further notified a minimum of 5 working days prior to the test of the exact date, time, and place of these tests, to enable the Agency to witness these tests.

e. Three copies of the Final Report for each of these tests shall be submitted to the Agency, within 60 days after completion of sampling and this report shall include as a minimum:

i. General information, that is, date of testing, testing personnel and observers;

ii. A summary of results;

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule;

iv. Detailed description of test conditions, including:

A. Process information, i.e., modes(s) of operation, and process rate, e.g. fuel and raw material consumption,

B. Control equipment information, i.e., equipment condition and operating parameters during testing; and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

5a. The 12.0 MBtu/hr waste heat boiler is subject to a New Source Performance Standard (NSPS) for small institutional steam generating units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

b. At all times, the Permittee shall, to the extent practicable, maintain and operate the boiler, in a manner consistent with good air pollution control practice for minimizing emissions.

6. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Mode	Firing Rate (MBtu/hr)	Nitrogen Oxide (lb/hr)	Nitrogen Oxide (t/yr)	Carbon Monoxide (lb/hr)	Carbon Monoxide (t/yr)
W.H. Boiler	Gas	12.0	1.68	7.36	0.42	1.84

These limits are based on 8760 hours of operation per year, standard AP-42 emission factors for the combustion of natural gas, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of twelve months of data.

7a. Operation of the Hydrogen gas plant shall not exceed the following limits:

Natural Gas Usage (cf/hr)	Natural Gas Usage (mmcf/yr)	Hydrogen Gas Production (cf/hr)	Hydrogen Gas Production (mmcf/yr)
21,000	184	110,000	964

These limits are based on information provided in the permit application. Compliance with annual limits shall be determined from a running total of twelve months of data.

b. Emission of Nitrogen Oxide, Sulfur Dioxide, and Carbon Monoxide from the Hydrogen gas plant shall not exceed the following limits:

Nitrogen Oxide (lb/hr)	Nitrogen Oxide (ton/yr)	Sulfur Dioxide (lb/hr)	Sulfur Dioxide (ton/yr)	Carbon Monoxide (lb/hr)	Carbon Monoxide (ton/yr)
3.00	13.14	0.10	0.44	1.00	4.38

These limits are based on information provided in the permit application. Compliance with annual limits shall be determined from a running total of twelve months of data.

8a. i. Particulate matter emissions and hours of operation for new equipment and certain items of existing equipment shall not exceed the limits specified in Tables 1 and 2. The limits in these tables are based on the maximum actual emission rates and operating hours, as indicated in the permit application.

This condition is based on maximum actual emission rates for new equipment in order to limit emission to levels below those at which the Agency believes 35 Ill. Adm. Code 203 would apply. This condition is based on maximum actual emission rates for existing equipment in order to make particulate matter emission decreases identified by ADM and relied upon by the Agency, enforceable. The Agency will revise this condition upon the formal request of the Permittee if the requirements of applicable rules are met by the revised permit application.

ii. This permit is issued based upon the minimal hourly emission rate and negligible annual emissions (less than 0.1 ton/year) of particulate matter, Soy Pelleting Equipment (DW36A-L) and Dowtherm boilers 3 and 4 (RF7, RF8).

b. Emissions of nitrogen oxide from Dowtherm boilers 3 and 4 (RF7 and RF8) shall not exceed 4.2 and 2.4 tons/year, respectively. These limits are based on standard emission factors, firing of natural gas at the maximum firing rate, and the maximum hours of operation indicated in the permit application.

9a. At the above location, the Permittee shall not keep, store, or utilize:

i. Distillate fuel oil (Grades No. 1 and 2) with a sulfur content greater than the larger of the following two values:

1. 0.28 weight percent, or

2. The wt. percent given by the formula: Maximum wt. percent sulfur = (0.000015) x (Gross heating value of oil, Btu/lb).

ii. Residual fuel oil (Grades No. 4, 5, and 6) with a sulfur content greater than that given by the formula:

Maximum wt. percent sulfur = (0.00005) x (Gross heating value of the oil in BTU/lb).

b. Organic liquid by-products or waste materials shall not be used as fuels without written approval from this Agency.

c. The Agency shall be allowed to sample all fuels at the above location.

10. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source pursuant to 35 Ill. Adm. Code 212.301.

11a. This permit is issued based upon adding a baghouse on to the existing cyclone/dryer system without any increase in emissions beyond those as stated in Table 1 of this Operating Permit.

b. This permit is issued based upon adding a rotary dryer conditioner to supplement an existing conditioner without any increase in emissions of particulate matter into the atmosphere.

12a. Emissions and operation of two fluid bed dryers (combined) for the dairy feed pelleting system shall not exceed the following limits:

Processing Rate (lbs/hr)	PM_{10} Emissions (lb/hr)	PM_{10} Emissions (ton/yr)	TSP Emissions (lb/hr)	TSP Emissions (ton/yr)
66,666	3.41	14.9	5.68	24.9

These limits are based on 8760 hours of operation and information provided in the application. Compliance with annual limits shall be determined from a running total of twelve months of data.

b. Within 90 days of a written request from the Agency, the particulate matter emissions from one of the fluid bed dryer cyclones shall be measured by an approved testing service, during conditions which are representative of maximum emissions.

c. The Agency shall be notified in writing a minimum of thirty days prior to the expected date of these tests and further notified a minimum of five working days prior to the test of the exact date, time, and place of these tests, to enable the Agency to witness these tests.

d. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency: Refer to 40 CFR, Appendix A USEPA test methods.

Location of Sample points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Particulate Matter	USEPA Method 5
PM_{10}	USEPA Method 201 or 102A (40 CFR 51, Appendix M)

e. Copies of the Final Report(s) for these tests shall be submitted to the Agency within fourteen days after the test results are compiled and finalized. The Final Report shall include as a minimum the following:

i. A summary of results;

ii. General information;

iii. Description of test method(s) including description of sampling points, sampling train, analysis equipment, and test schedule;

iv. Detailed description of test conditions;

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption;

B. Control equipment information, i.e., equipment condition and operating parameters during testing, and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

13a. The Permittee shall maintain records of the following items and other such items as necessary to demonstrate compliance:

i. For the Soybean Oil and Corn Germ plants, the throughputs for each (bushels/day); and

ii. For the Soybean Oil and Corn Germ plants, the quantity of hexane used per day for each plant (gallons/day); and

iii. For individual pieces of equipment, the throughput (lbs/hour) and operating hours for each (hours/year); and

iv. For the Hydrogen gas plant, the quantity of Hydrogen gas produced and quantity of natural gas consumed. (mmcf/month).

v. VOM emissions (tons/year).

b. The Permittee shall maintain appropriate records of hexane usage to allow compliance with 35 Ill. Adm. Code 215.340(a) to be determined.

c. These records shall be retained on site for a period of three years from the date of entry and shall be made available for inspection by the Agency upon request.

14. The Permittee shall operate, maintain, and repair all air pollution control equipment in a manner that assures that the emission limits set in this permit are met at all times. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturer's recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on a regular schedule. Detailed inspections of control equipment shall be made at least once per year.

iii. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations.

iv. Records: Records of inspection, maintenance, and repair activities for air pollution control equipment shall be kept on site and shall include as a minimum:

A. Date and duration of inspection, maintenance, and repair activities;

B. Description of maintenance or repair activity if not routine or preventative maintenance;

C. Probable cause for requiring maintenance or repair if not routine or preventative.

15. The Permittee shall record any period during which any emission source was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, and for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

ii. These records shall also identify any such periods during which an emission source violated applicable emission limits, including the specific requirements of this permit, based upon the above records. This record shall include the cause for noncompliance, if known; the corrective action(s) taken, and the measures taken to prevent any such reoccurrence if any.

16a. All records required by this permit shall be retained at the source for three years, and shall be available for inspection by the Agency. Any records that do not contain trade secrets shall be copied for the Agency upon request. Upon written request by the Agency, the Permittee

shall submit a copy of any records, including records containing trade secrets, within 15 working days from the date of the Agency request.

b. Records may be kept in a computerized data system provided that requested information can be retrieved at the source during its normal working hours.

17a. Any required reports and notifications concerning equipment operation, emissions testing, or monitoring systems shall be sent to the Agency's Compliance Unit at the following address unless otherwise indicated:

Illinois Environmental Protection Agency (39-CASMS)
Division of Air Pollution Control, Compliance Unit
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code 254, shall also be sent to the Agency's Permit Section in Springfield and the Regional Office at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

18. With the Annual Emissions Report required by 35 Ill. Adm. Code 201.302, the Permittee shall submit a summary of the records required by Condition 11 and report the annual emissions of particulate matter, accompanied by supporting calculations.

19. The Permittee shall fulfill applicable notification and record keeping requirements of the NSPS, 40 CFR 60.7.

20. If the Permittee foresees an increase in either the maximum hourly throughput of individual pieces of equipment, or the maximum daily throughput of the Soybean Plant or Corn Germ Plant above the levels indicated in the permit application, the Permittee shall submit an application for permit for such increase, pursuant to 35 Ill. Adm. Code 201.142. This application shall identify for each emission source, 1.) whether operation with such throughput is within the original capacity of the equipment, or the equipment has been or will be physically altered, 2.) the resulting level of emissions and the change in emissions, and 3.) whether the resulting increases in emissions are subject to Major Stationary Sources Construction and Modification, 35 Ill. Adm. Code 203, or the federal Prevention of Significant Deterioration Regulations, 40 CFR 52.21, as applicable.

21. The issuance of this permit does not relieve the Permittee of the responsibility of complying with the provisions of the State of Illinois Rules and Regulations, Title 35: Subtitle C, Water Pollution Control, Chapter 1.

22. As a consequence of the above conditions, this permit is issued based upon an increase in soybean throughput from 133.333 bushels per day to 165,000 bushels per day not constituting a major modification subject to the federal Prevention of Significant Deterioration of Air Quality Rules, 40 CFR 52.21. This permit limits emissions of VOM to within 40 tons/year actual levels associated within operation of the plant in the two year period prior to the installation of the Desolventizer-Toaster-Dryer-Cooler (DTDC). The DTDC was a substantial change debottlenecking the plant and allowing the increase in production through the extractor system.

It should be noted that this permit has been revised to correct a typographical error in Condition 12a and include a baghouse replacement on Elevator A rail unloading.

If you have any questions on this permit, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:psj

cc: Region 3

I.D.: 115015AAE
P.N.: 72110962
Facility: ADM

Table 1
Limits for New Equipment

OES Code	Emission Source	Particulate Matter Emissions lb/hr	Particulate Matter Emissions tons/yr	Annual Operating Hours
DW7	Fluid Bed Soybean Dryer	2.97	11.98	8,060*
DW8	Secondary Dehulling Aspiration	0.04	0.19	8,490
DW11	A-D Soybean DTDC	5.76	24.19	8,490
DW12	Metal Screening/Grinding/Transfer	0.33	1.33	8,400
DW14	Corn Meal Truck Loadout	1.63	6.85	8,400
DW23	Corn Germ Flaking	0.80**	3.40**	8,400
DW24	Corn Germ Expander	0.52	2.18	8,400
DW25	Corn Germ Expeller	1.73	7.27	8,400
DW27	A & B DTDC 1 & 2 (Combined)	5.08	22.25	8,760
DW 28	DTDC 3	4.08	17.87	8,760
		Total =	97.51	

* The fluid Bed Soybean Dryer may emit more than 11.98 tons/year and operate for more than 8,064 hours/year to the extent that the Aeroglide Grain Dryer (DW3) is operated at less than the rates specified in Table 2.

** The emission rates for Corn Flaking, OES DW23 have been revised to 0.80 lb/hour and 3.4 tons/year, from 0.49 lb/hour and 2.06 tons/year, due to the results of emissions testing.

DES:BDR:psj

I.D.: 115015AAE
P.N.: 72110962
Facility: ADM

Table 2
Limits for Existing Equipment

OES Code	Emission Source	Particulate Matter Emissions lb/hr	Particulate Matter Emissions tons/yr	Annual Operating Hours
DW3	Aeroglide Grain Dryer	25.90	18.60	1,440
DW4	Rail Dump and Elevator "C"	0.60	0.24	800
DW6C	Soybean Flaking	0.01	0.01	8,400
DW9	Transfer Aspiration and Hull Toasting and Grinding	0.11	0.46	8,400
		Total =	19.31	

DES:BDR:psj

ADM Decatur Bioproducts Plant Permits

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in theses attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

State Construction Permit 03070017

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co. - Bio Products
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03070017 I.D. No.: 115015AAE
Applicant's Designation: Date Received: July 10, 2003
Subject: Baghouse
Date Issued: July 25, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a baghouse for a product tank/blender in the astaxanthin production at the Bio Products facility as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the baghouse in a manner consistent with good air pollution control practice for minimizing emissions.

3. This permit is issued based on negligible emissions of particulate matter from the baghouse. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT -- REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03020009 I.D. No.: 115015AAE
Applicant's Designation: Date Received: February 14, 2005
Subject: Bio Products Pilot Fermentation System
Date Issued: May 6, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modifying the pilot fermentation system, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit allows modifying the pilot fermentation system, by addition of a scrubber, to allow evaluation of production of biopolymers.

b. This permit allows use of the pilot fermentation system for research and development of product lines other than biopolymers.

c. i. This permit also authorizes operation of an existing production propagator and seed fermentor as part of the pilot system, for which purpose these units shall also be piped to and vented through the scrubber.

ii. This permit also authorizes use of the propagator and seed fermentor that were originally part of the pilot system for the purpose of production as well as pilot work from the production operations, as the pilot equipment will take the place of production equipment. For this purpose, this permit is issued based on no increase in emissions.

2. This permit is issued based on the pilot fermentation system not being subject to 40 CFR Part 60, Subpart VV, Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry because the materials being produced are not included in 40 CFR 60.489.

3a. At all times, the Permittee shall maintain and operate the modified pilot fermentation system, including the scrubber, in a manner

consistent with good air pollution control practice for minimizing emissions.

b. i. Except during loading or unloading of a vessel, the exhaust flow rate of the pilot fermentation system shall not exceed 3,000 scfm.

ii. The scrubber shall be run at all times the pilot fermentation system is operating, for production of biopolymers or other new fermentation products.

c. The wastewater from the scrubber shall be managed so as to minimize emissions of recovered or entrained pollutants to the atmosphere, by either reusing the material as a process feed or sending it directly to the wastewater treatment plant.

4a. i. Emissions of volatile organic materials (VOM) from the modified pilot fermentation system shall not exceed the following limits:

Pollutant	Lbs/Hr	Tons/Yr
VOM	6.0	26.8

ii. This permit is issued based on negligible emissions of particulate matter from the modified pilot fermentation system. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

b. The pilot fermentation system is not a major process unit subject to Section 112(g) of the Clean Air Act, Hazardous Air Pollutants (HAPs) because emissions of HAPs are less than 10 tons/year for a single HAP and less than 25 tons/year for all combined HAPs

Note: These limits establish the potential emission of the modified fermentation system, as set forth by the Permittee in the application. The actual emissions will likely be far below these limits based on bench scale testing conducted by the Permittee. However the Permittee has requested these higher limits since the fermentation system is being used for research and development of a new product and reliable data confirming lower levels of emissions is not yet available.

5. The following methods and procedures shall be used for testing of emissions upon request of the Illinois EPA, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60 Appendix A, and 40 CFR 61 Appendix B, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
VOM	USEPA Method 18, 25 or 25A, as appropriate

6. The liquid flow rate of the scrubber shall be recorded at least once per shift during operation.

7a. The Permittee shall keep a file with the following for the modified pilot fermentation system, which shall be updated as needed to accurately describe the current operation of the system:

i. Maximum exhaust flow rate for the scrubber.

ii. Design information and engineering calculations for the uncontrolled emissions of the pilot fermentation system.

iii. Design information and engineering calculation for the performance of the scrubber and controlled emissions of the pilot fermentation system.

b. i. Hours of operation for the pilot process for biopolymers and other new products and hours of operation for the scrubber.

ii. The Permittee shall maintain logs of inspection, maintenance, and repairs for the pilot fermentation system to demonstrate good air pollution control practice.

c. The Permittee shall keep records of the VOM emissions for each month of the previous calendar year based on operating information, applicable factors, and formulas with supporting calculations.

8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

9a. The Permittee may utilize this system for the research and development of additional fermentation products and may continue to utilize the existing production propagator and production seed fermentor for production. The Permittee must notify the Illinois EPA within 30 days of its intent to trial a new product or product line. Following such notification, the Permittee may continue the trials of such product or product line without further notice.

b. Within 180 days of operation for each new product or product line, the Permittee shall provide the Illinois EPA with engineering calculations or test data demonstrating continued compliance with Condition 4.

10. The Permittee shall promptly notify the Illinois EPA, of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

11. The Permittee may operate the modified pilot fermentation system under this revised construction permit for a period of two years from the date of issuance of this construction permit or until operation is authorized by the source's CAAPP permit, whichever occurs first.

Please note that this permit has been revised to allow the changes addressed in Condition 1(c).

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

State Joint Construction and Operating Permit 02080054

JOINT CONSTRUCTION/OPERATING PERMIT -- REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02080054
Subject: Bin Vents
Date Issued: November 14, 2002

I.D. No.: 115015AAE
Date Received: November 4, 2002
Operating Permit Expiration Date: October 16, 2007

Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of three bin vents on existing tanks and OPERATE emission source(s) and/or air pollution control equipment consisting of five bin vents for the Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system in a manner consistent with good air pollution control practice for minimizing emissions.

3. Exhaust dust loading from the Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system shall not exceed 0.01 gr/dscf.

4. Particulate matter ten (PM-10) emissions from Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system shall not exceed 0.1 tons/month and 1.1 tons/yr.

5. The Permittee shall keep the following records for the Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system:

   a. The Permittee shall maintain logs of inspection, maintenance, and repairs for the Calcium Carbonate, Calcium Hydroxide or any other compatible solid storage system, including the bin vents, to demonstrate good air pollution control practice.

b. The annual PM-10 emissions for each month of the previous calendar year based on operating information and applicable factors and formulas with supporting calculations.

6. The Permittee shall promptly notify the Illinois EPA of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

8. Two (2) copies of required reports and notifications concerning equipment operation or repairs, maintenance, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Please note this permit has been revised to clarify which materials can be stored in the tanks.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

State Construction Permit 02070081

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02070081
Applicant's Designation:
Subject: Amino Acid System
Date Issued: May 13, 2003
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: April 30, 2003

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an Amino Acid system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

2. At all times, the Permittee shall maintain and operate the Amino Acid system in a manner consistent with good air pollution control practice for minimizing emissions.

3a. The inlet flow rate of the amino acid dryer baghouses shall not exceed 5915 scfm.

b. Exhaust dust loading for the amino acid dryer baghouses shall not exceed 0.01 gr/scf.

4. Particulate matter ten (PM_{10}) emissions from amino acid dryers, transfer systems, and compaction/grinding/packing system shall not exceed 0.8 tons/month and 8.13 tons/yr.

5a. The Permittee shall keep a file with the following for the amino acid dryers, transfer systems, and compaction/grinding/packing system:

i. The annual PM-10 emissions for each month of the previous calendar year based on operating information, applicable factors, and formulas with supporting calculations.

b. The Permittee shall maintain logs of inspection, maintenance, and repairs for the amino acid dryers, transfer systems, and

compaction/grinding/packing system to demonstrate good air pollution control practice.

6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

7. The Permittee shall promptly notify the Illinois EPA, of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

8. Two copies of required reports and notifications concerning equipment operation or repairs, performance testing, or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
2009 Mall Street
Collinsville, Illinois 62234

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 67294-9276

9. The Permittee may operate the Amino Acid system under this construction permit until its CAAPP permit is issued.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Please note that this permit has been revised to clarify which specific equipment, comprise the system.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 3

State Construction Permit 00090065

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland
Attn: Jill Davidson, Sr. Environmental Engineer.
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00090065
I.D. No.: 115015AAE
Applicant's Designation: IPA DISTL.
Date Received: September 22, 2000
Subject: IPA Distillation and Rework System
Date Issued: December 7, 2000
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an isopropyl alcohol (IPA) distillation column, condenser and product rework system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is based on the addition of the above listed equipment for the xanthan gum plant not resulting in an increase of throughput and emissions.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 00030042

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00030042
I.D. No.: 115015AAE
Applicant's Designation: TH40-01
Date Received: March 10, 2000
Subject: Threonine 4th - 8th Floor Transfer Collector
Date Issued: May 25, 2000
Operating Permit Expiration Date: May 25, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a baghouse for threonine transfer as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	PM Emissions (Lb/Hour)	(Ton/Yr)
Baghouse	8,760	0.2	0.9

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

State Joint Construction and Operating Permit 99010036

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Christopher R. Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99010036
I.D. No.: 115015AAE
Applicant's Designation: NTHREODC
Date Received: January 19, 1999
Subject: North Threonine Dust Collector
Date Issued: February 26, 1999
Operating Permit Expiration Date: February 26, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of a north threonine line leg baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission unit(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2a. Emission of particulate matter from the north threonine line leg baghouse of the Bioproducts II facility shall not exceed 0.3 lb/hour and 1.3 ton/year. These limits are based on the maximum emission rate and the maximum hours of operation (8,760 hour/year) as indicated in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. This condition is based on representations of maximum operation and maximum actual emission rates made in the permit application as agreed to in the application.

3. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.

Please note that the permit for the above equipment is being issued as a Joint Construction and Operating Permit. To ensure that all equipment is

incorporated into the CAAPP permit upon review by the Illinois EPA, the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Also note that the Illinois EPA has not incorporated the operation of this equipment into the existing operating permit. All equipment and operations will be permitted in a single permit upon issuance of the CAAPP permit.

If you have any questions on this, please call Bill Marr at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:WDM:psj

cc: Region 3

State Joint Construction and Operating Permit 98090012

JOINT CONSTRUCTION AND OPERATION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Joe Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No: 98090012
I.D. No.: 115015AAE
Applicants Designation: SUCCINATE
Date Received: September 4, 1998
Subject: Vitamin E Succinate Coating
Date Issued: November 20, 1998
Operating Permit Expiration Date: November 19, 2003
Location: 3700 East Division, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and /or air pollution control equipment consisting of agglomeration dryer with a primary and final filter as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Particulate Matter Emissions Lb/Hour	Ton/Year
Agglomerate Dryer with Filters	8,760	0.0005	0.0022

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. This permit is issued based upon adding an agglomerate dryer with two filters to the existing Vitamin E plant with an increase of 0.0022 tons per year in particulate matter emissions.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:psj

cc: Region 3

State Joint Construction and Operating Permit

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Joe Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98080065
I.D. No.: 115015AAE
Applicant's Designation: SUNFLOWER1
Date Received: August 21, 1998
Subject: Sunflower Steryl Esters
Date Issued: October 9, 1998
Operating Permit Expiration Date: October 8, 2003
Location: 3700 East Division, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of seven tanks, two reactors, two condensers, and vacuum pump all controlled by existing mineral oil scrubber as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Operation of the emission source(s) included in this permit shall not begin until a flowmeter with non-resettable counter has been installed on the wet methanol pipe and is operational.

3. This permit is issued based upon adding a sunflower steryl ester system to the existing mineral oil scrubber system at the Vitamin E plant without any increase in volatile organic material emissions or production capacity.

If you have any questions on this, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 98080023
Prevention of Significant Deterioration (PSD) Approval

REVISED
CONSTRUCTION PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL
(40 CFR 52.21)
EMISSION STANDARDS FOR PHARMACEUTICALS (40 CFR 63, SUBPART GGG)

PERMITTEE

Archer Daniels Midland Co.
Attn: Jill E. Davidson
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98080023
I.D. No.: 115015AAE
Applicant's Designation: VITAMIN C
Date Received: July 9, 2001
Subject: Vitamin C Production
Date Issued: July 20, 2001
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a Vitamin C Production Plant, including Vitamin C synthesis, product drying, product handling, solvent recovery, and raw material silos as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions which follow:

1. Archer Daniels Midland (ADM) requested a revised construction permit for the Vitamin C plant (Plant) at its Decatur manufacturing complex. The revised permit would allow for greater volatile organic material (VOM) emissions from the plant. VOM emissions occur from the solvent

needed for final processing of intermediate Vitamin C feedstock, which has been produced through a series of water-borne processes. The emissions of solvent are controlled by a scrubber, which recovers solvent for reuse, from the point at which solvent is first introduced into the process through the final dryer for Vitamin C product.

2. The source is located in Decatur Township in Macon county. The area is designated attainment for all pollutants.

3. The permit allows annual VOM emissions of 400 tons from the plant. The plant would therefore be subject to PSD as a major modification to an existing source for VOM emissions.

4. The permit allows annual emissions of hazardous air pollutants (HAPs) that are more than 10 tons of a single HAP, i.e., methanol. Accordingly, the plant is subject to USEPA's National Emission Standards for Pharmaceutical Production, 40 CFR Part 63, Subpart A and GGG, as an existing source. However, in the event that the delisting process currently under way by USEPA for methanol declassifies it, this standard may no longer apply to the Vitamin C plant.

5. After reviewing the materials submitted by ADM, Illinois EPA determined that the plant, as proposed, is designed to:

   a. Comply with applicable Pollution Control Board emission standards,

   b. Comply with federal emission standards for hazardous air pollutants from pharmaceutical production, and

   c. Utilize Best Available Control Technology (BACT) on emissions of VOM.

6. The Illinois EPA determined that the application complies with all applicable state and federal air pollution regulations, including the federal rules for Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

7. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

2a. All process vents in the plant discharging VOM, including any vacuum systems and VOM solvent tanks, shall be enclosed and ducted through a closed vent system to a VOM emission control system.

b. The VOM emission control systems shall be designed and constructed to achieve at least 98% control of VOM comparing the amount of VOM introduced into the processes and the emissions to the atmosphere. These control systems shall be operated and maintained in conformance with good air pollution practice.

3a. The Permittee shall implement the following practices for components and materials to minimize VOM emission losses from leaking components unless and until an equivalent practice is approved by the Illinois EPA:

i. Open-ended valves shall only be present as needed for routine sampling of a process.

b. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service (i.e., containing process fluids that are at least 10 percent VOM by weight) in the process units of the plant. This program shall include the following elements as a minimum, except for those components for which the Permittee must implement and comply with a Leak Detection and Repair Program pursuant to 40 CFR 63.1255 (See Condition 4).

i. Scope: The program covers components that are in VOM service in the process operations, other than components in vacuum service and components equipped with a closed vent system ducted to a VOM control system, where the term component includes valves, pumps and agitators (shaft seals), flanges, other connectors (inspection ports, manways, sight glasses, etc.), closed vent systems, and pressure relief devices.

ii. Definitions:

Leak:

An instrument reading of 10,000 ppm or greater for components other than pressure relief devices, an instrument reading of 500 ppm or greater for pressure relief devices, or observation of leaking material from a component as detected by sight, smell, or sound is considered a leak.

Low-Leak Design Pump:

A pump fitted with double mechanical pressurized seals, equipped with a permanent gauge for seal pressure* and that is operated and maintained consistent with good practice, or other similar pump design as approved by the Illinois EPA that both minimizes leaks and directly reveals the presence of a leak.

* This pressure gauge may be installed on the individual pump or installed as part of a central seal fluid system if each pump is equipped with a device to indicate flow of seal fluid.

iii. Monitoring: Monitoring is conducted on at least the following basis for components using applicable instrument and source survey procedures specified by USEPA Method 21 (except that daily manual calibration is not required if the instrument is self-calibrating) or the screening procedures in such methods are satisfied. Inspections are as follows:

Quarterly for valves (except for conventional valves as USEPA skip-check criteria and alternative practices established in 40 CFR 60.483-2 (NSPS for SOCMI Leaks) are satisfied) and pumps (except pumps that are of low leak design);

Annually for closed vent systems;

Within a week for a pressure relief device after it experiences a pressure release;

Within a week for the flanges and other connectors in a particular area, system or feature after such components are involved in repair, maintenance, alteration or other activity that has the potential to result in a leak from flanges or other connectors, including resealing of a manway after entry to a vessel, if absence of leaking components was not verified as a final step in such activity by use of a soap solution or other comparable technique; and

Within a week after repair of a component for which a leak was detected and could not be readily repaired within one hour.

iv. Visual Inspection: Pumps and agitator shafts shall be inspected by visual inspection on a weekly basis for indications of liquids dripping from the seal. If there are indications of liquids dripping from a seal, a leak is detected.

v. Repairs: Repairs are made as soon as practicable but not later than the following:

For a component other than a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown.

For a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown or 6 months, whichever occurs first, except that further delay of repair of a valve is allowed (beyond the next process unit shutdown) if reasonable supplies of repair parts or replacement valves are maintained but these supplies are depleted, in which case repair of a valve shall be accomplished not later than 6 months after the first process unit shutdown or 1 year after detection of the leak, whichever occurs first.

vi. Tagging: A leaking component is "tagged" if it cannot be readily repaired within one hour of detection of a leak, which tag includes the date the leak was detected and the date the leak was repaired and which tag is only removed after the repaired component is inspected.

vii. Records: Records are maintained that:

Facilitate correct and consistent identification of the components that are covered by the program, including at a minimum having available an up to date process diagrams for the plant.

Verify performance of required inspections, including date, personnel, proper implementation of inspection methods, purpose or scope of inspection, covered components and results (leak/no-leak status of the covered equipment).

Document each component leak that is identified, including identification of the component and the nature of the leak, and verify prompt repair of the leak, including the date the repair is completed and detailed explanation of the required actions for a leak repair that could not be completed within 30 days, further explanation if a repair could not be completed until process unit shutdown or thereafter, and the date required inspection of the component was performed following repair.

Compile the results of the program, including fulfillment of skip-check criteria for conventional valves when relied upon.

Identify each deviation from required practices, with appropriate identification, description and explanation.

Document proper operation, maintenance, and repair of low-leak design pumps.

viii. Revisions: The minimum provisions for tagging and recordkeeping, as specified above, may be revised by the Illinois EPA in future operating permits for the plant to the extent that the Permittee demonstrates that effective detection and repair of leaking components is still reasonably assured by the revised provisions.

Conditions 2 and 3 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

4a. i. The VOM control system shall be maintained and operated to comply with the applicable control efficiency requirements of the National Emissions Standard for Pharmaceutical Production, Standards: Process Vents, and Standards: Storage Tanks for emissions of HAP [40 CFR 63.1253(b) and 63.1254(a)].

ii. The Permittee shall not rely on the emission averaging provisions of these standards without first having submitted a timely and complete implementation plan to the Illinois EPA.

b. Components in HAP service shall be subject to a Leak Detection and Repair Program and other applicable requirements of National Emission Standards for Pharmaceutical Production - Equipment Leaks [40 CFR 63.1255].

c. Wastewater from the plant shall be handled in conformity with applicable requirements of the National Emission Standards for Pharmaceutical Production - Wastewater [40 CFR 63.1256]. For this purpose, methanol shall be considered a water soluble HAP [40 CFR 63, Subpart GGG, Table 3].

d. If USEPA removes methanol from the list of HAPs, the above Condition 4(a), (b), and (c) and Condition 12(e) shall no longer apply as follows:

i. These conditions shall no longer apply if 40 CFR Part 63, Subpart GGG is not otherwise applicable, as confirmed by the Permittee in writing to the Illinois EPA.

ii. This provisions shall take effect 30 days after written notice from the Permittee, which notice shall explain any changes in applicable requirements for the plan.

5a. Emissions of VOM by the plant shall not exceed 400 tons per year.

b. Compliance with this limit shall be determined on a rolling 12 month basis, calculated monthly, assuming that VOM loss, i.e., the difference between VOM introduced to the plant and VOM in outputs from the plant, is lost as emissions.

6. The VOM control system(s) for process operations, which consists of water absorption, shall be operated in conformance with the following as good air pollution control practices until such practices are set by the Illinois EPA based on actual operating experience and the emission testing required by Condition 9:

A minimum liquid to gas ratio of 0.62 gallon per 100 standard cubic foot of gas flow.

7a. Process emission (stack emissions) of VOM from the plant shall not exceed the following limits:

Operation	VOM Emissions Daily (Lb/Hr - 8 Hr. Ave.)	VOM Emissions Annual (Ton/Yr)
Processing Vents	7.4	32.4
Packaging Tower (EP1)	0.51	2.25
Product Transfer (EP2)	0.86	3.75
Transfer System (EP3)	0.26	1.125
Recycle System (EP7)	0.09	0.4
	Total:	39.9

b. i. Emissions of particulate matter (PM) from classifying packaging and cleanup operations and from bulk storage silos shall be controlled by fabric filters designed and maintained to emit no more than 0.01 gr/dscf.

ii. Process emissions of PM from the plant shall not exceed the following limits:

Operation	PM Emissions (Lbs/Hr)	PM Emissions (Tons/Yr)
Packaging Tower (EP1)	0.69	3.02
Product Transfer (EP2)	0.07	0.31
Transfer System (EP3)	0.07	0.31
CaOH Silos (EP4)	0.22*	1.04
Vacuum System (EP5)	0.02	0.09
NaOH Silo (EP6)	0.18	0.79
Recycle Transfer (EP7)	0.04	0.18
	Total	5.74

* Hourly emission rate 0.11 lb/hour, each.

These conditions are based on representations of maximum operation and maximum actual emission rates made in the permit application.

8. The plant may be operated for 365 days pursuant to this Construction Permit. This Condition supersedes standard Condition 6(b).

9a. i. A. On or before August 31, 2001, the VOM and HAP emissions from the VOM control system shall be measured at the Permittee's expense by an approved testing service, to verify compliance with the requirements in this permit, including the National Emission Standards for Pharmaceutical Production.

B. Within 60 days upon achieving commercial production, the Permittee shall retest the VOM and HAP emissions from the VOM control system at their expense by an approved testing service, during conditions which are representative of maximum emissions to verify compliance with the requirements in this permit, including the National Emission Standards for Pharmaceutical Production.

C. Notwithstanding the above, the Illinois EPA may upon request of the Permittee provide more time for testing pursuant to this permit if initial shakedown of the plant is interrupted or proceeds slowly so that more time is needed to achieve stable operation at a level suitable for emission testing or such time is reasonably needed to address unavoidable delays in performance of testing.

ii. Measurements of VOM, HAP or particulate matter emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance such request.

b. The following methods and procedures shall be used for testing of emissions, as approved by the Illinois EPA. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
Volatile Organic Material	USEPA Method 18, 25 or 25A, as appropriate

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and particulate matter and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The methodology that will be used to determine the operating rate during the period of testing, e.g., the rate of VOM solvent introduced to the process.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.

f. The Final Report from testing shall include as a minimum:

i. A summary of results.

ii. General Information.

iii. A detailed description of methodology for determination of the rate of VOM introduced into processes during the period of testing, with supporting information.

iv. Detailed description of operating conditions of the emission unit(s) being tested, including:

A. Process information, process rate, e.g. raw material consumption; and

B. Control equipment information, i.e., equipment condition and operating parameters during testing.

v. Data and calculations.

vi. Conclusions.

10a. The Permittee shall install, operate, and maintain devices to measure, either directly or indirectly, and record the scrubbant (liquid) flow and exhaust (gas) flow from the scrubber.

b. The Permittee shall maintain logs for the operation, maintenance and repair of these monitoring devices.

11. The Permittee shall operate, maintain, and repair all particulate matter air pollution control equipment in a manner that assures the emission limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturer's recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

iii. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

iv. Records: Records of inspection, maintenance, and repair activities for all air pollution control equipment shall be kept on site and shall include as a minimum:

A. Date of inspection, maintenance, and repair activities;

B. Description of maintenance or repair activity if not routine preventative maintenance; and

C. Probable cause for requiring maintenance or repair if not routine or preventative.

12a. The Permittee shall maintain records of the following items, which shall be kept current:

i. The amount of VOM, (lbs by type of material) typically in inventory in process area in the plant, that is, held in process vessels, in-process tanks, and piping.

ii. If the Permittee considers VOM contained in wastewater in determining compliance with Condition 5, records of the fraction of VOM in wastewater, by type of material, that is eliminated by wastewater treatment, e.g., destroyed by biodegradation, so that

is not lost to the atmosphere during collection and wastewater treatment, as determined by appropriate USEPA models and analysis methods. (If this record is not maintained the Permittee need not keep the records specified by Condition 12(b)(iii) and (d)(iii).

b. The Permittee shall maintain operating records for the following items:

i. Each receipt of VOM material, i.e., transfer from delivery vehicles or shipping containers to the plant or transfer from another operation to the plant, by type of material (lbs., as determined from scale weight tickets or records).

ii. Each shipment of VOM material, i.e., transfer to delivery vehicles or shipping containers for return to the supplier or transfer to another source from the plant, by type of material (lbs., as determined from scale weight tickets or records).

iii. Quantity of wastewater containing VOM sent from the plant for treatment (gallon/day), and its VOM content (% VOM, as determined from representative sampling and analysis).

iv. Estimated amount of VOM material (lbs by type of material) in inventory in process areas in the plant, determined (1) with the initial material balance determination under this permit, and (2) on at least a calendar year basis thereafter.

v. Changes in plant operating procedures that would significantly increase the amount or concentration of VOM in the exhausts from process operations, including changes in the amount or type of VOM used or changes in the amount of steam or other inert gases introduced.

c. The Permittee shall maintain records for the VOM control systems as follows:

i. A chart or diagram indicating acceptable liquid and gas flow rates so as to comply with Condition 6, with supporting documentation for conversion factors if monitoring devices indirectly determine flow, e.g., by measurement of motor current flow.

ii. Each period of time when the control system was not in operation (date and duration) and whether associated process operations were in service during the period.

iii. The operating parameters of the VOM control systems as recorded pursuant to Condition 10(a), using an averaging period that is at most an hourly block average:

iv. The above parameters as manually recorded at least every 30 minutes, if automatic measurement and recording device(s) are not in service for more than two hours.

d. The Permittee shall maintain monthly records of the following items with supporting calculations to determine VOM emissions from the plant by material balance:

i. The total amount of VOM (lbs) received during the month, (Refer to Condition 12(b)(i)).

ii. The total amount of VOM (lbs) shipped during the month (Refer to Condition 12(b)(i)).

iii. The total amount of VOM (lbs) eliminated with wastewater during the month, if considered by the Permittee (Refer to Condition 12(a)(i) and (b)(iii)).

iv. Any significant change in the amount of VOM (lbs) in inventory in the plant, comparing the current determination for the amount of VOM in inventory with the previous determination (Refer to Condition 12(a)(i)).

v. The total amount of VOM (lbs) emitted (lost) during the month, determined as (i) - (ii) - (iii) - (iv).

vi. The total amount of VOM (lbs) emitted (lost) during the year, determined as the total of the monthly emissions and the emissions of the previous 11 months (Refer to Condition 12(d)(v)).

e. The Permittee shall keep applicable records required by the National Emission Standards for Pharmaceutical Operations, 40 CFR 63, Subpart GGG.

f. The Permittee shall record any period during which any emission unit was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a VOM control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit failed to meet the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

13a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available to the Illinois EPA at the end of inspection.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. The Permittee shall mark such records "trade secret," safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, as required upon request, they shall be accompanied by a copy of the claim letter and the statement of justification, which have been dated by the Permittee and otherwise completed for the material provided to the Illinois EPA.

14. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

15a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811
Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

16. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State implementation Plan, as well as all other applicable local, state and federal requirements.

Please note, this permit has been revised to allow additional time to complete performance tests.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Operating Permit 98020015

OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Joe Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98020015
I.D. No.: 115015AAE
Applicant's Designation: THREONINE-II
Date Received: March 1, 1999
Subject: Threonine Dryer Expansion
Date Issued: May 19, 1999
Expiration Date: May 19, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of two threonine dryers with baghouse control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Particulate Matter Emissions (Lb/Hr)	(T/Yr)
Two Threonine Dryers with Baghouse	8,760	0.69	3.02

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in Condition 1.

i. Hours of Operation (hour/day).

b. These records shall be retained for three years and shall be available for inspection and copying by the Illinois EPA and USEPA.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions concerning this letter, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Operating Permit 94090105

OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 94090105
I.D. No.: 115015AAE
Applicant's Designation: LACTIC 2
Date Received: December 14, 1999
Subject: Lactic Acid Production
Date Issued: January 7, 2000
Expiration Date: November 19, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a modification to the Lactic Acid Plant including: one stripper, six vent scrubbers, nine distillation/column reactors, four ethanol storage tanks with scrubber control and one gaseous scrubber as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation and emissions of the lactic acid plant shall not exceed the following limits. These limits apply to the modified plant, superseding limits associated with "food grade" lactic acid production by the existing plant, as established in construction permit 94090605.

   a. Total crude lactic acid processed shall not exceed 12,222 tons per month and 110,000 tons per year.

   b. Total VOM emissions from the lactic acid plant shall not exceed 4.2 tons/month and 37.5 tons/year.

   c. These limits are based on information provided in the permit application. Compliance with annual limits shall be determined from a running total of twelve months of data.

2a. The Permittee shall maintain records of the following items and such other items as necessary to allow the Illinois EPA to review compliance with the limits in Condition 1.

   i. Detailed documentation for the amount of VOM estimated to be contained in residue material returned to the alcohol plant, as determined from representative monthly sampling and analysis of

the residue for ethanol content or upon request by the Illinois EPA.

b. Records for operation of the scrubber at least once per shift including:

i. Scrubbant flow rate and scrubber temperature.

ii. The occurrence and duration of any period when the scrubber was operating outside required levels, i.e., insufficient scrubbant flow or excess temperature, or was not in operation, with explanation and description of course of action, if the lactic acid plant was in operation.

c. Operating records for the lactic acid plant, at least once per month, including:

i. Quantity of fresh ethanol used in lactic acid production (tons/month);

ii. Quantities of crude lactic acid processed (tons/month); and

iii. Quantities of residue generated (i.e., material returned to alcohol plant for recovery of ethanol (ton/month)).

iv. VOM emissions (tons/month and tons/year) determined by material balance with supporting calculations.

d. The above records shall be retained for a period of at least three (3) years and shall be made available for inspection by the Illinois EPA upon request.

3a. The Permittee shall notify the Illinois EPA of any exceedance of permit requirements within 30 days.

b. With the Annual Emission Report, the Permittee shall also report <u>total quantity</u> of fresh ethanol used in lactic acid production (ton/year) and the factor used for ethanol content of residue.

4. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

5a. i. The volatile organic material emissions from the packed bed scrubber shall be measured within 90 days of a written request from the Illinois EPA, as selected by the Illinois EPA as follows by an approved testing service, during conditions which are representative of maximum emissions.

ii. The scrubber shall be equipped with appropriate ports and other facilities for emission testing.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA:

Volatile Organic Material	USEPA Method 25, 25A if outlet VOM cont. < 50 ppmv as C Non CH_4

c. The Illinois EPA shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Illinois EPA to witness these tests.

d. Three copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are complied and finalized.

i. A summary of results.

ii. General information.

iii. Description of test method(s).

iv. Process and control data during the test.

v. Data and calculations, including copies of all raw data sheets, records of laboratory analyses, sample calculations, and data on equipment calibration.

6. The ethanol content of residue shall be reevaluated upon written request from the Illinois EPA, to verify or update the factor maintained pursuant to Condition 2(a). This evaluation shall include representative sampling and analysis covering at least a month time period.

It should be noted this permit has been revised to increase annual lactic acid production as described in Construction Permit 99070009.

If you have any questions on this permit, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Construction Permit 94050075

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 94050075
Applicant's Designation:
Subject: Bio Sys Dryer
Date Issued: March 24, 2005
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: December 28, 2004

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new Bio Sys dryer with baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1a. The Bio Sys dryer shall only be fired with natural gas or other gaseous fuel, at a rate not to exceed 7.0 million Btu/Hour.

b. Exhaust flow rate from the Bio Sys dryer and associated baghouse shall not exceed 24,500 scfm.

c. Emission of the new Bio Sys dryer shall not exceed the following limits:

	E M I S S I O N S					
	Particulate Matter		Nitrogen Oxide		Carbon Monoxide	
(Grain/SCF)	(Lbs/Hr)	(Tons/Yr)	(Lbs/Hr)	(Tons/Yr)	(Lbs/Hr)	(Tons/Yr)
0.01	2.1	9.2	0.7	3.0	0.14	0.61

These limits are based on the maximum emission data and operating data provided in the permit application.

2. At all times, the Permittee shall maintain and operate the Bio Sys dryer and associated baghouse in a manner consistent with good air pollution control practice for minimizing emissions.

3. The Permittee shall maintain an operating and maintenance log for the control system for the Bio Sys dryer that includes:

a. Maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

b. Incidents of malfunction, with date, duration, description, probable cause, corrective actions, and resultant emissions.

4a. The Permittee shall maintain records of the following items for the Bio Sys dryer and such other items as may be appropriate to allow the Agency to review compliance of the Bio Sys dryer with the limits in Condition 1.

i. A file containing the following information, which shall be kept up to date:

A. Specifications or other data documenting the design capacity of the dryer burner (million Btu/hour).

B. Engineering data for the maximum exhaust flow rate and outlet grain loading for the Bio Sys dryer (baghouse) with supporting calculations.

ii. Nominal hourly emission rates of PM, NO_x and CO from the dryer with supporting calculations.

iii. The following operating and emissions records:

A. Hours of operation.

B. Emissions of PM, NOx and CO (tons/month and tons/year), with supporting calculations.

b. These records shall be retained for three years at a readily accessible location at the source and shall be available for inspection and copying by the Illinois EPA.

5. The Permittee shall submit an annual report including the following data to the Illinois EPA:

a. The annual emissions of particulate matter with supporting activity data and calculation.

It should be noted that this permit has been revised to include an operational limitation on the Bio Sys dryer and associated baghouse, replacing the previous production limitations.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:jar

cc: Region 3

State Operating Permit 92050005

217/782-2113

OPERATING PERMIT GRANT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Joseph Porter
4666 Faries Parkway
Decatur, IL 62526

Application No.: 92050005
Applicant's Designation:
Subject: Amino Acid Production
Date Issued: January 9, 1997
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: December 24, 1996
Expiration Date: October 23, 1997

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a Bio-Chem plant modification which includes an increase in throughput, the addition of four new dryers with baghouse (OES-BC214B) and an additional baghouse for amino acid packaging. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The exhaust from dryer baghouses shall not exceed a particulate matter loading of 0.0023 grains per standard cubic food (scf).

b. Operation and particulate matter emissions of equipment shall not exceed the following limits:

Item of Equipment	Exhaust Flow Rate (SCFM)	Particulate Matter Emissions (Lb/Hr)	(Ton/Yr)
Dryers 1 through 5 (Each)	12,000	0.24 (Each)	5.25 (Total)
Dryers 7 through 14 (Each)	35,000	0.69 (Each)	24.2 (Total)
Packaging/Cooler	20,000	0.10	0.44
Packaging/Cooler and Screening/Packaging	20,000 (Total)	0.10	0.44

These limits are based on the information provided in the permit application.

c. Total particulate matter emissions of equipment shall not exceed 30.3 tons/year.

d. This permit is issued based on the increase in particulate matter accompanying each Lysine expansion being less than significant, i.e.,

less than 15 tons/year. The potential increase in particulate matter emissions is estimated to be 12.5 tons/year from the first expansion of Dryers 7, 8, 9 and 10 and exhausts from the packaging/cooler area. The potential increase in particulate matter is estimated to be 12.5 tons/year from the second expansion of dryers 11, 12, 13 and 14 and packaging/cooler.

2a. i. The particulate matter emissions from individual dryers or the screen/packaging line shall be measured within 90 days of a written request from the Agency, as selected by the Agency as follows by an approved testing service, during conditions which are representative of maximum emissions.

ii. Each dryer and the screening 1 packaging line shall be equipped with appropriate ports and other facilities for emission testing.

b. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency:

Location of Sample Points	USEPA Method 1 (40 CFR 60, Appendix A)
Gas Flow and Velocity	USEPA Method 2 (40 CFR 60, Appendix A)
Particulate Matter	USEPA Method 5 (40 CFR 60, Appendix A)

c. The Agency shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

d. Three copies of the Final Report(s) for these tests shall be submitted to the Agency within 14 days after the test results are compiled and finalized.

i. A summary of results.

ii. General information.

iii. Description of test method(s).

iv. Process and control data during the test.

v. Data and calculations, including copies of all raw data sheets, records of laboratory analyses, sample calculations, and data on equipment calibration.

e. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Agency's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

3. The Permittee shall maintain an operating and maintenance log for the control systems on each dryer, and the packaging/cooler area that include:

   a. Maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

   b. Incidents of malfunction, with date, duration, description, probable cause, and corrective actions.

4a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with the limits in Condition 1 and 2.

   i. Total amino acid production (ton/day, ton/month and ton/year).

   ii. Amino acid production through each dryer.

   iii. Status of operations and control systems, at least once per shift for each dryer/baghouse and at least once per day for the screening packaging line/baghouse.

b. These records shall be retained for two years at a readily accessible location at the source and shall be available for inspection and copying by the Agency.

4. The Permittee shall submit an annual report including the following data to the Agency:

   a. A summary of records required by Condition 4.

   b. The annual emissions of particulate matter with supporting activity data and calculation.

It should also be noted that this permit has been revised to incorporate construction permit 95050168. This permit has also been revised to correct the description.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

CAAPP PERMIT
Archer Daniels Midland Company - Decatur Complex
I.D. Number: 115015AAE
Application No.: 96030038

217/782-2113

OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Joseph A. Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 92050005
Applicant's Designation:
Subject: Amino Acid Production
Date Issued: December 30, 1997
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: October 1, 1997
Expiration Date: December 29, 2002

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a Bio-Chem plant modification which includes an increase in throughput, four dryers with baghouse (OES-BC214B), baghouse for amino acid packaging, and baghouse for amino acid bulk loadout as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on the fact that the above-specified units are identified in the Permittee's pending application for a CAAPP permit and are certified, by Permittee, to be in compliance with applicable regulations.

2. This permit does not preclude any future permitting review and evaluation nor does it shield the Permittee from any legal action for noncompliance with or circumvention of, applicable regulations.

It should be noted that a detailed review of the specified units will be performed during review of the pending CAAPP application submitted for these units.

If you have any questions concerning this letter, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:psj

cc: Region 3

Operating Permit 03100009

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

ADM - Bioproducts
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03100009 I.D. No.: 115015AAE
Applicant's Designation: Date Received: February 18, 2005
Subject: Modified Hydrochloric Acid System
Date Issued: May 10, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a modified hydrochloric acid system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. The Permittee is authorized to add 2 pumps to the Hydrochloric Acid (HCl) system (EU-MS-01 and CE-MS-01), which consists of four existing tanks and a scrubber, to convert from an "air pressured unloading system" to an "air assisted" system for railcar unloading. These pumps assist the liquid flow, reducing instrument air usage and airflow to the scrubber at the end of the unloading process.

2. At all times, the Permittee shall maintain and operate the modified Hydrochloric Acid system in a manner consistent with good air pollution control practice for minimizing emissions.

3. Hazardous air pollutants (HAPs) emissions from the receiving and storage of HCl in the modified Hydrochloric Acid system shall not exceed 1.1 ton/year, total.

4. The Permittee shall keep the following records for the modified Hydrochloric Acid system:

   a. Logs of inspection, maintenance, and repairs to demonstrate good air pollution control practice.

   b. A file with the design information and engineering calculations for the performance of the scrubber to control HCl emissions.

c. The throughput of HCl in the tanks.

d. The annual HCl emissions, rolling 12 month average, based on throughput and applicable factors and formulas with supporting calculations.

5. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic format (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

7. The Permittee may operate the modified Hydrochloric Acid system under this construction permit until its CAAPP permit is next reissued to address this change.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

State Construction Permit 99070062

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99070062 I.D. No.: 115015AKG
Applicant's Designation: Date Received: July 22, 1999
Subject: Bio Products Packaging
Date Issued: August 17, 1999
Location: 2235 Brush College Road, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a astaxanthin packaging line with a baghouse control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on negligible emissions of particulate matter from the astaxanthin packaging line. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

It should be noted that this construction permit has been incorporated into Operating Permit 92110090.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

State Joint Construction and Operating Permit 02060058

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Cary
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02060058 I.D. No.: 115015AAE
Applicant's Designation: VEGGIE OVEN
Date Received: June 20, 2002
Subject: Impingement Oven
Date Issued: July 25, 2002 Operating Permit Expiration Date: July 25, 2007
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of an impingement oven in the Specialty Food Ingredients Plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the oven, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

2a. The oven's firing rate shall not exceed 3,000,000 Btu/hour.

b. Natural gas shall be the only fuel used for the oven.

3a. i. Nitrogen oxides (NO_x), carbon monoxides (CO), and volatile organic materials (VOM) emissions from the oven shall not exceed the following limits:

NO_x Emissions		VOM Emissions		CO Emissions	
(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)
0.3	1.32	0.16	0.722	0.25	1.11

ii. Compliance with these annual limits shall be determined from a running total of 12 months of data.

b. This permit is issued based on negligible emissions of particulate matter (PM) and sulfur dioxides (SO_2) from the oven. For this purpose, emissions from the oven shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

4a. The Permittee shall keep a file documenting the oven's rated maximum firing rate.

b. The Permittee shall maintain logs of inspection, maintenance, and repairs for the oven to demonstrate good air pollution control practice.

5. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

6. The Permittee shall promptly notify the Illinois EPA, of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

7. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section

Division of Air Pollution Control

DES:KKD:psj

cc: Region 3

State Joint Construction and Operating Permit 00030041

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 00030041
I.D. No.: 115015AAE
Applicant's Designation: PR10-01
Date Received: March 9, 2000
Subject: Process Tanks Vent Scrubber
Date Issued: May 25, 2000
Operating Permit Expiration Date: May 25, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of process tanks vent scrubber for odor control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based on no increase in emissions over those currently permitted for the Bioproducts plant.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Operating Permit 99120023

OPERATING PERMIT

PERMITTEE

Archer Daniels Midland
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99120023
I.D. No.: 115015AAE
Applicant's Designation: LYSNEXP-V
Date Received: December 8, 1999
Subject: Amino Acid Production Expansion
Date Issued: December 30, 1999
Expiration Date: December 30, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of three amino acid dryers (15, 16, and 17) controlled by baghouses as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Exhaust Rate (scfm)	Particulate Matter Emissions (Lb/Hr)	(Tons/Yr)
Amino Acid Dryers	35,000 (Ea)	0.69 (Ea)	9.1 (Total)

These limits are based on the information provided in the permit applications.

b. Compliance with annual limits shall be determined from a running total of 365 days of data.

2a. The Permittee shall maintain records of the following items and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in Condition 1.

i. Amino acid production (ton/day, ton/month and ton/year).

ii. Operating parameters, at least once per shift for each dryer/baghouse.

b. These records shall be retained for two years at a readily accessible location at the source and be available for inspection and copying by the Illinois EPA.

If you have any questions on this permit, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

Other ADM Decatur Permits

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in theses attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

State Joint Construction and Operating Permit 99120011

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99120011
I.D. No.: 115015AAE
Applicant's Designation: GENERATOR
Date Received: December 6, 1999
Subject: Emergency Generator
Date Issued: December 13, 1999
Operating Permit Expiration Date: December 13, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of emergency generator as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of the emergency generator shall not exceed the following limits:

Contaminant	Emission Rate ($Lb/10^6$ Btu)	Emission Limit (Lb/Hr)	(Tons/Yr)
Particulate Matter	0.07	1.54	0.39
Carbon Monoxide	0.85	18.7	4.7
Nitrogen Oxides	3.2	70.4	17.6
Organic Material	0.09	1.98	0.495
Sulfur Dioxide	0.51	11.22	2.8

These limits are based on maximum of 500 operating hours per year and a maximum firing rate of 22 MBtu/hour. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

4. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

5. Appropriate operating records shall be maintained to allow the Illinois EPA to review compliance with the limits in Condition 2.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 99100103

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99100103
I.D. No.: 115015AAE
Applicant's Designation: PHYTOPACK
Date Received: October 29, 1999
Subject: Phyto-Nutrient Pack Tanks and Blender
Date Issued: December 13, 1999
Operating Permit Expiration Date: December 13, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of three phyto-nutrient pack tanks and one blender as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based on negligible emissions of PM and VOM from the three pack tanks and blender. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

3. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Joint Construction and Operating Permit 99080051

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick, Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99080051
I.D. No.: 115015AAE
Applicant's Designation: PREHEAT ASP
Date Received: October 26, 1999
Subject: Preheater Aspirator
Date Issued: November 23, 1999
Operating Permit Expiration Date: November 23, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a bean preheater aspirator with cyclone control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	PM Emissions (gr/scf)	(Lb/Hr)	(Ton/Yr)
Bean Preheater Aspirator	8,760	0.02	2.06	9.01

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

4. Appropriate operating records shall be maintained to allow the Illinois EPA to review compliance with the limits in Condition 2.

5. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.

6. The Permittee shall maintain records of the vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA.

7. This permit is issued based on the fact that the above-specified units are identified in the Permittee's pending application for a CAAPP permit and are certified, by Permittee, to be in compliance with applicable regulations.

8. This permit does not preclude any future permitting review and evaluation nor does it shield the Permittee from any legal action for noncompliance with or circumvention of, applicable regulations.

It should be noted that a detailed review of the specified units will be performed during the review of the pending CAAPP application submitted for these units.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

State Construction Permit 98060072

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle L. Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98060072
I.D. No.: 115015AAE
Applicant's Designation: CONDENSER
Date Received: June 22, 1998
Subject: Corn Germ Expeller Condenser
Date Issued: September 15, 1998
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of corn germ expeller condenser as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based upon adding a condenser to the existing corn germ expeller exhaust without any increase in emissions above those previously allowed or any increase in production capacity.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 98030023

JOINT CONSTRUCTION AND OPERATION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Joe Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98030023
I.D. No.: 115015AAE
Applicant's Designation: SOUTH TOWER DC
Date Received: March 5, 1998
Subject: Amino Acid Packaging Tower Dust Collector
Date Issued: May 19, 1998
Operating Permit Expiration Date: May 18, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of amino acid packaging dust collector as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Particulate Matter Emissions (Lb/Hour)	Particulate Matter Emissions (Ton/Year)
Amino Acid Packaging Tower Dust Collector with Baghouse	8,760	0.32	1.40

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. This permit is issued based upon adding a dust collection system to the existing amino acid packaging system without any increase in production capacity.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 98020039

JOINT CONSTRUCTION AND OPERATION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle L. Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98020039
I.D. No.: 115015AAE
Applicants Designation: FLAKING LINE
Date Received: February 11, 1998
Subject: Shortening Flaking Line
Date Issued: March 13, 1998
Operating Permit Expiration Date: March 12, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and /or air pollution control equipment consisting of shortening flaking, grinding, screening, and packing with baghouse control as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Particulate Matter Emissions Lb/Hour	Ton/Year
Shortening Flaking Line	8,760	0.12	0.53

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in Condition 2.

i. Hours of Operation (hr/day).

b. These records shall be retained for three years and shall be available for inspection and copying by the Illinois EPA and USEPA.

Please note the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:psj

cc: Region 3

State Joint Construction and Operating Permit 98010074

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 98010074
I.D. No.: 115015AAE
Applicant's Designation: ASPIRATOR
Date Received: January 26, 1998
Subject: Hot Bean Aspirator
Date Issued: March 4, 1998
Operating Permit Expiration Date: March 3, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of hot bean aspirator with cyclone control as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based upon replacement of the hot bean aspirator with cyclone control with a new hot bean aspirator with cyclone control without any increase in emissions above those previously allowed or any increase in grain handling capacity.

If you have any questions on this, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 97120076

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97120076
I.D. No.: 115015AAE
Applicant's Designation: SULFUR BURN
Date Received: December 18, 1997
Subject: Additional Sulfur Scrubber
Date Issued: February 27, 1998
Operating Permit Expiration Date: February 26, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of sulfur burner scrubber system as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based upon adding an additional sulfur burner scrubber system to the existing scrubber system and sulfur burners, without any increase in emissions into the atmosphere.

If you have any questions on this, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 97120047

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97120047
I.D. No.: 115015AAE
Applicant's Designation: HCL RECEIV
Date Received: December 12, 1997
Subject: HCL Storage and Scrubber System
Date Issued: February 27, 1998
Operating Permit Expiration Date: February 26, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of two hydrochloric storage tanks with scrubber as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. This permit is issued based on negligible emissions of particulate matter from the two 150,000 gallon hydrochloric acid storage tanks. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year for each tank.

If you have any questions on this, please call Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Construction Permit 97050097

Prevention of Significant Deterioration (PSD) Approval

CONSTRUCTION PERMIT - PSD APPROVAL - NSPS SOURCE - REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis, Senior Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97050097
I.D. No.: 115015AAE
Applicant's Designation: BOILER9-11
Date Received: February 25, 2002
Subject: Boilers
Date Issued: June 10, 2002
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of two circulating fluid bed boilers (#9 and #10), one gas fired boiler (#11), limestone storage and handling system (Silo #4), and limestone rail dump, with associated control equipment as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

In conjunction with this permit, approval for the above activity is given with respect to the federal rules for Prevention of Significant Deterioration of Air Quality Regulations (PSD) for the above referenced equipment as described in the application, in that the Illinois Environmental Protection Agency (IEPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency (USEPA) and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow:

Findings

1a. Archer Daniels Midland Co. (ADM) operates boilers to supply steam and generate electricity for its grain processing operations.

b. ADM has requested a permit to construct two circulating fluidized bed (CFB) boilers (#9 and #10), each with limestone injection, a baghouse, and a selective non-catalytic NO_x reduction system; one gas fired boiler (#11) with low NO_x burner and flue gas recirculation; and associated changes to coal and limestone handling and storage systems, including a new limestone storage silo and limestone unloading rail dump both with baghouses. The nominal capacity of the boilers is 1,500 MBtu/hour for each CFB boiler and 350 MBtu/hour for the gas fired boiler.

2. The plant is located in Decatur Township in Macon County. The area is currently designated attainment for all air quality standards. The county has a class II designation for Prevention of Significant Deterioration (PSD) permit review.

3. The plant is a major source under PSD rules. The proposed project will increase potential annual emissions by 9,200 tons/year of sulfur dioxide (SO_2), 1,654 tons/yr of nitrogen oxides (NO_x), 334 tons/yr of particulate matter, 1,375 tons/yr of carbon monoxide (CO), 482 tons/yr of volatile organic compounds (VOC), 5 tons/yr of lead, and 16 tons/yr of fluorides. The project is therefore subject to PSD review as a major modification for the above contaminants.

4. The new boilers and associated new equipment must be operated so that emissions are in compliance with (i) all applicable Pollution Control Board emission standards, (ii) federal New Source performance standards for emissions of SO_2, NO_x and PM, and (iii) Best Available Control Technology (BACT) for emissions of SO_2, NO_x, PM, CO, VOC, lead, and fluorides as set in conditions of this permit. The application submitted by ADM, as reviewed by the Illinois EPA shows that the project will comply with these requirements. Emissions of lead and fluorides are addressed by limits on other contaminants, i.e., PM and SO_2.

5. The air quality analysis submitted by ADM and reviewed by the Illinois EPA shows that this project will not cause a violation of the ambient air quality standards. The air quality analysis also shows compliance with the allowable increment for PM, SO_2, and NO_x.

6. The Illinois EPA has determined that the application for the proposed project complies with all applicable Pollution Control Board Regulations the federal New Source Performance Standards 40 CFR 60, Subpart Db, and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

7. A copy of the application, and the Illinois EPA's review of the application and a draft of this permit were placed in a location in the Decatur City Clerk's Office, Decatur Civic Center, and the public has been given notice and opportunity to examine this material and to submit comments and to request and participate in a public hearing on this matter.

The Illinois EPA is issuing approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization of the Illinois EPA.

Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by the following conditions.

2a. The emissions from each CFB boiler (#9 and #10) shall not exceed the following limits:

i. PM - 0.025 lb/MBtu;

ii. SO_2 - 0.70 lb/MBtu, and

8% of the coal's potential SO_2 emission rate, i.e., at least 92% reduction. (This reduction based limit is equivalent to an emission rate of 0.70 lb SO_2/mmBtu when firing a coal supply containing 4.4 lb sulfur (S)/MBtu. It requires a lower emission rate if the coal supply contains less sulfur, e.g., 0.40 lb SO_2/mmBtu for a coal supply containing 2.5 lb S/MBtu.)

These limits shall apply on a 30 day rolling average using the compliance procedures of the NSPS, 40 CFR Part 60, Subpart Db, except that emissions during startup and shutdown, as addressed below, shall be excluded and not be considered for purposes of the reduction based limit.

iii. NO_x - 0.120 lb/MBtu, when firing a coal supply containing more than 2.5 lb S/ MBtu **or** 0.090 lb/MBtu when firing a coal supply containing 2.5 lb S/MBtu or less **or** such lower limit as set by the Illinois EPA following the Permittee's evaluation of NO_x emissions and the SNCR system, as provided below.

This NO_x limit shall apply on a 30 day rolling average using the compliance procedures of the NSPS, 40 CFR Part 60, Subpart Db from 17(b).

For this purpose, the determination of sulfur content shall be made based on the typical sulfur content of the coal on a time period that is at least monthly.

iv. CO - 0.10 lb/MBtu.

v. VOC - 0.032 lb/MBtu.

b. The Permittee shall use reasonable practices to minimize emissions of SO_2 during startup and shutdown of a boiler, including conducting startup and shutdown of boilers in accordance with written procedures maintained on site that are specifically developed to minimize SO_2 emissions from both "cold" and "hot" startups and shutdowns, that as a minimum include the following measures:

i. Review of the operational condition of a boiler prior to initiating startup of the boiler.

ii. Use of natural gas during startup to heat the boiler prior to initiating firing of coal or other solid fuel.

iii. Review of the operating parameters of the boiler during each startup as necessary to make appropriate adjustments to the startup to minimize emissions of SO_2 and other pollutants.

c. The Permittee shall evaluate NO_x emissions from the CFB boilers to determine whether a lower NO_x emission limit (as low as 0.100 and 0.070 lb/MBtu, respectively, depending upon whether sulfur content of the coal more or less than 2.5 lb/MBtu) may be reliably achieved while complying with other emission limits without significant risk to equipment or personnel, significant increase in ammonia emissions, and unreasonable increase in maintenance and repair needed for the boilers.

3a. The only fuel fired in the gas fired boiler (#11) shall be gaseous fuel. For this purpose, gaseous fuel is defined as "commercial" natural gas (see 40 CFR 60.4(b) and gaseous process emission streams fired for purposes of energy recovery, odor control, or safety.

b. The emissions from the gas fired boiler (#11) shall not exceed the following limits:

i. NO_x - 0.05 lb/MBtu.

This limit shall apply on a 30 day rolling average using the compliance procedures of the NSPS, 40 CFR Part 60, Subpart Db.

ii. CO - 0.04 lb/MBtu.

iii. VOC - 0.014 lb/MBtu.

4a. Emissions of particulate matter from the new limestone unloading rail dump and limestone silo #4 shall be controlled with bag filters designed to emit no more than 0.01 grains/dry standard cubic foot.

b. i. Emissions of particulate matter from coal handling and conveying shall be controlled with enclosures and aspiration to bag filters.

ii. Emissions from coal storage shall be controlled by an enclosure.

Conditions 2, 3 and 4 represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act. Limits are to be met on an hourly basis, unless otherwise specified. Compliance shall be demonstrated by emission testing, monitoring and recordkeeping in accordance with Conditions 8, 9, 10, 11, 12 16 and 17.

5a. The two CFB boilers (#9 and #10) and the gas fired boiler (#11) are subject to a New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subparts A, and Db. The Illinois EPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement.

b. The emissions from each boiler shall not exceed the applicable limits pursuant to the NSPS.

c. At all times, the Permittee shall maintain and operate each boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, as required per NSPS, 40 CFR 60.11(d).

6a. Emissions from the boilers shall not exceed the limits in Table I. The limits in Table I are based upon the emission rates and the maximum firing rate specified in the permit application consistent with the air quality analysis submitted by the Permittee to comply with the PSD rules. Compliance with these limits shall be determined as a 3 - hour average, consistent with testing and monitoring as required by Conditions 8, 9, 10, and 11.

b. Emissions of particulate matter from the new limestone unloading rail dump and limestone silo #4 shall not exceed 1.71 pound/hour (each) and 7.51 tons/year (each).

7a. New emission units covered by this Permit may each be operated under this construction permit for a startup/shakedown period of 365 days* after completion of construction. During this period , notwithstanding Condition 2(a)(ii), the SO_2 reduction for a CFB boiler need only comply with the reduction requirement of the NSPS, 40 CFR Part 60, Subpart Db, following initial performance testing to the extent authorized by the Illinois EPA in conjunction with a request from the Permittee to make improvements to boiler equipment and operation to facilitate compliance with the SO_2 reduction requirement.

* For the new CFB boilers, this period of time may be extended by the Illinois EPA for up to an additional 365 days upon written request by the Permittee as needed to reasonably accommodate unforeseen difficulties in the startup of these boilers.

b. For the CFB boilers (#9 and #10) and the gas fired boiler (#11), the Permittee shall fulfill applicable notification and recordkeeping requirements of the NSPS, 40 CFR 60.7 and 60.49b including:

i. Written notification of commencement of construction, no later than 30 days after such date (40 CFR 60.7(a)(1));

ii. Written notification of anticipated date of initial startup, at least 30 days but not more than 60 days prior to such date (40 CFR 60.7(a)(2)); and

iii. Written notification of the actual date of initial startup, within 15 days after such date (40 CFR 60.7(a)(3) and 40 CFR 60.49b(a)).

c. The Permittee shall notify the Illinois EPA in writing at least 30 days prior to initial firing any solid fuel other than coal in a CFB boiler.

8a. i. A. Within 60 days after achieving the maximum production rate at which the boiler will be operated but not later than 180 days* demonstrating sustainable operation, the emissions shall be measured by an approved testing service as follows. The duct work from each boiler shall include a properly located test port so that the boiler emissions may be tested. The following emissions shall be measured:

CFB Boiler #9	-	PM, SO_2, NO_x, CO, VOC and opacity
CFB Boiler #10	-	PM, SO_2, NO_x, CO, VOC and opacity
Gas Boiler #11	-	NO_x, CO, VOC

* This period of time may be extended by the Illinois EPA for a new CFB boiler for up to an additional 365 days upon written request by the Permittee as needed to reasonably accommodate unforeseen difficulties in the startup and testing of these boilers, provided that initial performance testing required by the NSPS, 40 CFR Part 60, Subpart Db has been completed for the boiler and the test report submitted to the Illinois EPA.

B. The Permittee will also conduct emission tests for SO_2, NO_x, CO, VOC and PM within 90 days of a written Illinois EPA request.

ii. A. Measurements of SO_2, PM and NO_x from the CFB boilers shall be conducted and data collected in accordance with the

test methods and procedures specified in 40 CFR 60.45b and 60.46b.

B. Measurements of NO_x from the gas fired boiler shall be conducted in accordance with 40 CFR 60.46b.

C. Other emissions measurements shall be made as follows:

1. Nitrogen oxide (NO_x) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 7, 7A, or 7E;

2. Carbon monoxide (CO) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 10;

3. Volatile organic compound (VOC) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 18 or 25; and

4. Opacity of stack emissions shall be determined in accordance with 40 CFR 60, Appendix A, Method 9.

D. Where an hourly limit appliance, compliance shall be determined as the average of three runs, consistent with relevant provision of the NSPS, 40 CFR 60.8(f).

b. i. The Permittee shall notify the Illinois EPA prior to each of these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of 30 days* prior to the expected date, and shall be accompanied by a detailed plan describing the testing which will be performed. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days* prior to the actual date of the test.

* The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

ii. This notification shall also identify the parties that will be performing testing and the set or sets of operating conditions (i.e., boiler load and fuels) under which testing will be performed.

iii. Emissions testing shall be conducted under conditions that are representative of maximum emissions.

c. The Permittee shall submit 3 copies of the Final Report(s) for each of these tests to the Illinois EPA immediately within 30 days after the test results are compiled and finalized.

9. At a minimum, to confirm compliance with Condition 2(a)(i), the Permittee shall test PM emissions from each CFB boiler in accordance with Condition 8 at a regular interval that is no greater than 36 months, i.e., PM testing of each CFB boiler at least once every 36 months. Notwithstanding the above, if the results of two of these PM tests in a row for a boiler demonstrate PM emissions of 0.015 lb/MBtu or less, the maximum interval for testing of such boiler may be doubled, i.e., PM testing at least once every 72 months. Provided however, if a PM test for such a boiler then shows PM emissions above 0.015 lb/MBtu, the maximum interval between testing shall revert to 36 months until two tests in a row again show PM emissions of 0.015 lb/MBtu or less.

10a. i. The Permittee shall install, evaluate, operate, and maintain continuous opacity, SO_2, NO_x and CO monitoring systems and either an O_2 or CO_2 monitoring system on each CFB boiler (#9 and #10).

ii. The type, location, and operating procedures for the monitoring equipment for the CFB boilers (#9 and #10) shall be approved by the Illinois EPA, prior to installation.

iii. The Permittee shall fulfill the requirements for monitoring in the NSPS, 40 CFR 60.13, 60.47b, 60.48b, and 40 CFR 60 Appendix B.

b. i. The Permittee shall sample and analyze the sulfur and heat content of the solid fuel supplied to the CFB boilers in accordance with USEPA Reference Method 19 (40 CFR 60, Appendix A, Method 19).

ii. This sampling and analysis shall include separate measurements for the sulfur and heat content of the coal supplied to the CFB boilers.

c. All records with respect to fuel sampling and the operation of the monitors shall be retained for two years and shall be available for inspection and copying by the Illinois EPA.

11a. The Permittee shall install, evaluate, operate, and maintain a continuous emission monitoring system for the measurement of NO_x discharged from the gas fired boiler (#11), in accordance with the provisions of 40 CFR 60.13, 40 CFR 60.48b and the applicable procedures of 40 CFR 60 Appendix B, unless an operational monitoring plan is approved and implemented, pursuant to 40 CFR 60, 49b(c).

b. In particular, the performance of the continuous NO_x monitoring systems shall be evaluated using the Performance Specifications of 40 CFR 60,

Appendix B prior to the emission tests required by Condition 6 pursuant to 40 CFR 60.13(c) and operation of the monitor shall be verified on a daily basis in accordance with written procedures, pursuant to 40 CFR 60.13(d).

12. In addition, when NOx emission data are not obtained from a NO_x monitoring system required by Condition 10(a) and 11 because of continuous monitoring systems breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved methods as necessary to provide emission data for a minimum of 75 percent of the operating hour in steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days, pursuant to 40 CFR 60.40b(f).

13. The Permittee shall install, evaluate, operate, and maintain meters to measure and record fuel consumption by each boiler.

14a. The fuel feed stream combusted in each CFB boiler shall contain no more than 20 percent by weight, on a calendar quarter basis, of tires, tire derived fuel, and other materials which constitute municipal solid waste as defined in 40 CFR 60.51a.

b. The Permittee shall keep records on a calendar quarter basis of the weight of tires, tire derived fuel and other material which constitute municipal solid waste combusted in each CFB boiler and the weight of all other materials, by type, burned in each CFB boiler.

c. As a consequence of the above conditions, this permit is issued based on each CFB boiler constituting a co-fired boiler pursuant to 40 CFR 60.50b(g) provided the Permittee notifies the USEPA of this status accompanied by a copy of this permit, with a copy of such notification also sent to the Illinois EPA.

15a. This permit allows use of tires and tire derived fuel, as defined in Section 54 of the Act, and clean wood, as defined in 40 CFR 60.51b, as supplemental fuels in the CFB boilers.

b. Supplemental fuels shall be burned in a blend with coal so as to not exceed 20 percent by weight in the total fuel supply to a CFB boiler, determined on a daily basis.

c. The Permittee shall handle supplemental fuels for the CFB boilers in accordance with a written fuel management plan designed to assure that acceptable fuel is received and fuel is safely stored and handled. This plan shall include the specifications for acceptable fuel, anticipated sources of fuel, procedures for qualifying fuel suppliers, procedures for inspection of fuel shipments, procedures for rejection of unacceptable shipments, and procedures for on-site handling and storage of fuel.

d. The Permittee shall burn supplemental fuels in the CFB boilers in accordance with written operating procedures designed to assure a uniform and consistent blend of fuel to the boilers and operation of the boilers in compliance with applicable requirements of this permit. This plan shall include the design and maximum amount of the fuel in the total blend, procedures for blending fuels, changes to normal operating procedures for the boiler, if any, and acceptable ranges for boiler and air pollution control equipment operating parameters, if different than normal.

e. The Permittee shall keep appropriate records to demonstrate that it is complying with Conditions 15 (b), (c), and (d) above.

f. i. The Permittee shall promptly submit monthly progress reports to the Illinois EPA while it is initially introducing a supplemental fuel into a CFB boiler. This report shall include the firing rate(s) being evaluated, a description of the events and findings during the month, and a summary of emission data.

ii. At the conclusion of the introduction of a supplemental fuel, the Permittee shall promptly submit a final report to the Illinois EPA stating the maximum rate at which the fuel will be burned and providing a summary of the written fuel management plan and operating procedures prepared for use of the fuel and the range of emission rates expected from operation with such fuel.

g. Nothing in this condition shall excuse the Permittee from compliance with applicable statutes and rules governing supplemental fuels, including rules governing storage of tires.

16a. The Permittee shall not burn wastes that are generated by another person's activities, other than tires and tire derived fuel in the boilers, without first having obtained local approval pursuant to Section 39.2 of the Act, if required, and appropriate permits from the Illinois EPA.

b. For purposes of this condition, a clean wood material shall be considered a waste if it is a discarded material.

This condition is imposed to address compliance with State requirements under Section 39.2 of the Act and is not federally enforceable.

17a. i. The Permittee shall maintain a record of the output of continuous monitoring systems required pursuant to Conditions 9, 10, and 11.

ii. The Permittee shall maintain a record of maintenance, calibration and operational activity associated with continuous monitoring equipment.

b. For each of the CFB boilers (#9 and #10), the Permittee shall maintain records of the following items:

i. Records of SO_2 emissions and operation of the boiler as related to SO_2, as specified by the NSPS (40 CFR 60 60.49b(k) and (m)).

ii. Records of NO_x emissions and operation of the boiler as related to NO_x, as specified by the NSPS (40 CFR 60 60.49b(g)).

iii. The amount of fuel combusted in each boiler on a daily basis, by type of fuel.

iv. A. The sulfur content of coal, lb S/MBtu, supplied to each boiler, as determined pursuant to Condition 10(b)(ii); and

B. The sulfur content of coal supplied to each boiler on a 30-day rolling average, determined from the above data.

v. With respect to the SO_2 reduction based limit in Condition 2(a)(ii), for each 30 day averaging period, the SO_2 emissions in lb/MBtu and the required SO_2 emission rate as determined by applying the permissible emission fraction to the potential SO_2 emission rate of the coal supply.

c. For the gas fired boiler (#11), the Permittee shall maintain records of the following items:

i. Records of NO_x emissions and operation of the boiler as related to NO_x, as specified by the NSPS (40 CFR 60 60.49b(g)); and

ii. The amount of gaseous fuel fired on a daily basis in MBtu/day, by type.

d. The Permittee shall keep inspection and maintenance logs for the PM filters associated with handling and storage of coal and limestone.

e. Steam charts and daily records of steam generation from the plant shall be maintained.

18. All records required by this permit shall be kept at a readily accessible location at the boiler plant and be available for inspection and copying by the Illinois EPA. These records shall also be retained for three years unless otherwise specified in a particular provision of this permit.

19a. For the CFB boilers (#9 and #10), the Permittee shall report analyses of the fuel burned in the boilers on a quarterly basis.

b. The Permittee shall fulfill applicable reporting requirements in the NSPS, 40 CFR 60.7(c), and 60.49b. For this purpose, the quarterly

reports shall be submitted no later than 30 days after the end of the calendar quarter.

c. Either as part the quarterly NSPS report or accompanying such report, the Permittee shall report to the Illinois EPA any and all opacity, SO_2, NO_x and CO measurements which exceed the respective emission limits set by Condition 2, 3, and 5. These reports shall provide for each such incident, the pollutant emission rate, the date and duration of the incident, and whether it occurred during startup, malfunction, breakdown, or shutdown. If an incident occurred during malfunction or breakdown, all corrective actions taken shall also be reported. These reports shall also specify periods during which the continuous monitoring systems were not in operation.

d. The Permittee shall report any other exceedance or violation of the requirements of this permit, not addressed above, to the Illinois EPA within 90 days of the event. This report shall include the date and time of the incident, a description of the incident, the level of emissions on an hourly basis, if or magnitude of the incident, a description of the corrective measures taken and efforts made to prevent future occurrences.

20. Prior to firing a gaseous emission stream in the gas fired boiler (#11), the Permittee shall obtain a construction permit, if one is required, or otherwise provide advance notification to the Illinois EPA. Such notification shall describe the amount and characteristics of the emission steam proposed to be fired, the manner in which it will be fired, and evaluate compliance with Condition 6(a) while firing such stream.

21a. The Permittee shall perform the evaluation of NO_x emissions from the CFB boilers required by Condition 2(c) in accordance with a plan submitted to the Illinois EPA for review and comment. The initial plan shall be submitted to the Illinois EPA for review and comment no later than 60 days after achieving sustainable full load for the CFB boiler or a change in the sulfur content of the coal supply triggering a new evaluation.

b. The plan shall provide for systematic evaluation of changes, within the normal or feasible range of operation, in the following elements as related to the monitored NO_x emissions:

Boiler Operating Load and Operating Settings
Operating Rate and Settings of the SNCR System
Flue Gas Temperature at SNCR Injection Point(s)
Sulfur Content of Fuel Supply and SO_2 Emission Rate
Bed and Combustion Settings, Including Excess Oxygen
Amount and Type of Limestone Added to the Bed
Nitrogen Content of the Fuel Supply
Fabric Filter Pressure Drop, Cleaning Cycle and Operation

Opacity and Particulate Matter Emissions
Ammonia Slip

c. The Permittee shall promptly begin this evaluation after a CFB boiler demonstrates compliance with the applicable emission limits as shown by emission testing and monitoring. At this time, the Permittee shall submit an update to the plan that describes its findings with respect to control of NO_x emissions during the shakedown of the boiler, which highlights possible areas of concern for the evaluation.

d. i. This evaluation shall be completed and a detailed written report submitted to the Illinois EPA within two years after the initial startup of a CFB boiler.

ii. A subsequent evaluation shall be completed and a detailed report submitted to the Illinois EPA within two years after a change in the coal supply, to one with more or less than 2.0 lb S/MBtu, compared to the coal supply initially evaluated.

iii. These deadlines may be extended for an additional year if the Permittee submits an interim report demonstrating the need for additional time to effectively evaluate NO_x emissions and propose an alternative limit or limits for NO_x emissions.

e. i. More stringent emission limits for NO_x emissions shall be set as a result of this evaluation if the Illinois EPA finds that a CFB boiler can consistently comply with such limits. Additional parameters or factors, e.g., the nitrogen content of the fuel supply, may be included in such limits to address particular modes of operation during which such limits may or may not be achievable.

ii. If the Permittee fails to complete the evaluation or submit the required report in a timely manner, the NO_x emission limits shall automatically revert to the lower limits identified in Condition 2(c), i.e., 0.100 or 0.070 lb NO_x/MBtu depending on the sulfur content of the coal.

22a. This permit shall become invalid as follows, pursuant to 40 CFR 52.21 (r)(2). This condition supersedes standard Condition 1.

i. This Permit shall become invalid as applied to the CFB boilers (#9 and #10) if construction of these boilers is not commenced within 18 months after this permit becomes effective, if construction of these boilers is discontinued for a period of 18 months or more, or if construction of these boilers is not completed within a reasonable period of time.

ii. This Permit shall become invalid as applied to the gas fired boiler (#11) and its associated facilities if construction of this boiler is not commenced within 18 months after this Permit

becomes effective, if construction of this boiler is discontinued for a period of 18 months or more, or if construction of this boiler is not completed within a reasonable period of time.

b. For purposes of the above provisions, the definitions of "construction" and "commence" at 40 CFR 52.21 (b)(8) and (9) shall apply, which require that a source must enter into a binding agreement for on-site construction or begin actual on-site construction. (Also see the definition of "begin actual construction," 40 CFR 52.21 (b)(11))

23. This approval to construct does not relieve the Permittee of the responsibility to comply with all local, state and federal Regulations which are part of the applicable Illinois State implementation plan, as well as all other applicable federal, state and local requirements.

It should be noted that this permit has been revised to accommodate time required for orderly startup, debugging and optimization of the CFB boiler #9 as requested in the letters dated February 21, 2002 and May 24, 2002 from ADM and to clarify requirements for control of NOx emissions.

If you have any questions on this permit, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:jar

cc: Region 3
USEPA Region V

Table I

All particulate matter (PM) shall be considered PM-10 unless emissions are tested by an appropriate USEPA test method for measurement of PM-10, as specified in 35 Ill. Adm. Code 212.110(e).

Boiler Emission Limits (Lbs Per Hour/Tons Per Year)

Boiler	SO_2	NO_x	PM	CO	VOC
CFB Boiler #9	1050/4600.0	180/788.5	37.5/164.5	150/657.0	48/210.5
CFB Boiler #10	1050/4600.0	180/788.5	37.5/164.5	150/657.0	48/210.5
Gas Boiler #11	0.21/1.0	17.5/77.0	1.05/5.0	14.0/61.0	4.9/21.0
Total (Ton/Yr)	9,200	1,654	334	1,375	442

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State Operating Permit 97040117

OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97040117
I.D. No.: 115015AAE
Applicant's Designation: PHYTO1
Date Received: October 8, 1999
Subject: Phyto-Nutrient Plant
Date Issued: December 3, 1999
Expiration Date: December 3, 2004
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of resin beds, evaporator and stripping column, rectifier, storage tank all controlled by a scrubber, and spray dryer with baghouse as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The annual production of the Phyto-Nutrient Plant shall not exceed 1,300,000 pounds per year

b. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	VOM Emissions (Lb/Hour)	VOM Emissions (Ton/Year)
Spray Dryer	8,760	2.0	8.76
Wet Scrubber	8,760	2.0	8.76
Fugitive Losses from Pumps, Valves, & Seals	8,760	--	5.10
Fugitive Losses from Start-Up/Shut-Down	N/A	--	3.00
		Total:	25.60

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

c. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Particulate Matter Emissions (Lb/Hour)	(Ton/Year)
Spray Dryer	8,760	0.6	2.63

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in Condition 1.

i. Production of Phyto-Nutrient (lb/day).

ii. Hours of Operation (hr/day).

b. These records shall be retained for three years and shall be available for inspection and copying by the Illinois EPA and USEPA.

3. As a consequence of the above conditions, this permit is issued based upon the Phyto-Nutrient Plant not constituting a major modification subject to the federal Prevention of Significant Deterioration of Air Quality Rules, 40 CFR 52.21, PSD.

Please note the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions concerning this letter, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

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cc: Region 3

State Construction Permit 96120087

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 96120087
I.D. No.: 115015AAE
Applicant's Designation: TEMPPKGBLR
Date Received: December 23, 1996
Subject: Package Boiler
Date Issued: January 24, 1997
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of one package boiler as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. Natural gas shall be the only commercial fuel combusted in the above-referenced package boiler.

b. The total annual consumption of natural gas in the above-referenced auxiliary boiler shall not exceed 1,432 million cubic feet.

2. The package boiler shall only be operated as a temporary boiler, that is, to supply steam for process usage steam need at ADM.

3a. The above-referenced package boiler shall not operate for more than 8,736 hours per year.

b. Emissions and operation of the above-referenced package boiler shall not exceed the following limits:

Natural Gas Usage		Nitrogen Oxides Emissions		Carbon Monoxide Emissions	
(scf/Hr)	(scf/Yr)	(Lb/Hr)	(T/Yr)	(Lb/Hr)	(T/Yr)
163,918	1,432,000,000	8.6	37.7	6.00	26.28

These limits are based on the information in the permit application.

4a. The Permittee shall keep all records necessary to demonstrate compliance with the conditions set forth in this Construction Permit.

These records include, but are not limited to, records displaying total hours of operation, monthly records of fuel usage and all records required to prove compliance in the permit.

b. The Permittee shall keep appropriate records to demonstrate that the package boiler is only used as an temporary boiler as described in the application for ADM.

c. The Permittee shall keep these records for a period of two (2) years and make them available for inspection and copying by the Agency upon request.

d. Compliance with annual limits shall be determined from a running total of twelve (12) months of data.

5. Any required reports and notifications concerning equipment operation, performance testing or a continuous monitoring system shall be sent to the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
2200 Churchill Road, P.O. Box 19276
Springfield, Illinois 62794-9276

6. The nitrogen oxides and carbon monoxide concentration in the effluent stream of the temporary boiler shall be measured by an approved independent testing service, within 45 days of a written request by the Agency for such a test. The Agency will require this test if, based on observations by Field personnel, the temporary boiler is poorly maintained or operated so as to make compliance.

7. As a consequence of the above conditions, this permit is issued based on the addition of the above referenced package boiler not constituting a major modification in order to limit NO_x emissions to below those at which the Agency believes Prevention of Significant Deterioration rules, CFR 52.21 would apply. The emissions of NO_x are below the significance level of 40 tons/yr. This shall be accomplished by operating 172 million Btu per hour package boiler as a temporary unit.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:jar

cc: Region 3
USEPA Region V

State Construction Permit 96120048

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Michelle Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 96120048
I.D. No.: 115015AAE
Applicant's Designation: DAIRY-FEED
Date Received: December 12, 1996
Subject: Dairy Feed Pelletizing
Date Issued: April 10, 1997
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of dairy feed pelleting system controlled by four cyclones as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Process Rate (Lbs/Hr)	Operating Hours (Hr/Yr)	Emissions PM_{10} (Lb/Hr)	PM_{10} (T/Yr)	TSP (Lb/Hr)	TSP (T/Yr)
Two Fluid Bed Dryers	33,333 Ea	8,760	3.41	14.9	5.68	24.9

These limits are based on information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2a. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with Condition 1.

i. Operating hours for each emission source.

ii. Amount of dairy feed processed on a monthly basis.

iii. Operating parameters for air pollution equipment.

b. These records shall be retained for two years and shall be available for inspection and copying by the Agency.

3a. Within 90 days of written request from the Agency, the particulate matter emissions of one of the fluid bed dryer cyclones shall be measured by an approved testing service, during conditions which are representative of maximum emissions.

b. The Agency shall be notified in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified a minimum of five (5) working days prior to the test of the exact date, time and place of these tests, to enable the Agency to witness these tests.

c. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Agency: Refer to 40 CFR 60, Appendix A USEPA test methods.

Location of Sample Points	USEPA Method 1 (40 CFR 60, Appendix A)
Gas Flow and Velocity	USEPA Method 2 (40 CFR 60, Appendix A)
Particulate Matter	USEPA Method 5 (40 CFR 60, Appendix A)
PM_{10}	USEPA Method 201 or 102A (40 CFR 51, Appendix M)

d. Copies of the Final Report(s) for these tests shall be submitted to the Agency within 14 days after the test results are compiled and finalized. The Final Report shall include as a minimum the following:

i. A summary of results

ii. General information

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule

iv. Detailed description of test conditions, including

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption

B. Control equipment information, i.e., equipment condition and operating parameters during testing, and

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration

e. Submittals of information shall be made as follows:

i. Two copies of all notifications, reports or other submissions required by this permit shall be provided to the Agency at the following address, unless otherwise specified:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. One copy of all notifications, reports and other submissions required by this permit, but not including the Annual Emission Report, shall also be provided to the Agency at the following address, unless otherwise specified:

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
2009 Mall Street
Collinsville, Illinois 62234

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

State Operating Permit 96050082

OPERATING PERMIT -- NSPS SOURCE

PERMITTEE

Archer Daniels Midland Company
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 96050082
I.D. No.: 115015AAE
Applicant's Designation: RAIL-MOD
Date Received: March 24, 1998
Subject: Rail Receiving Pit
Date Issued: June 15, 1998
Expiration Date: June 14, 2003
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a modification to the existing rail receiving pit with new baghouse and new scale tanks controlled by an existing baghouse as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The rail receiving pit and scale tanks are subject to a New Source Performance Standard (NSPS) for grain elevators, 40 CFR 60, Subparts A and DD adopted as 35 Ill. Adm. Code 230. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

b. The particulate matter emissions from the rail receiving pit ant scale tanks with associated control equipment shall not exceed 0.01 gr/dscf, pursuant to 40 CFR 60.302(b).

c. The particulate matter opacity associated with this rail receiving pit and scale tanks from grain handling shall not exceed 0% opacity and rail receiving pit from unloading shall not exceed 5% opacity, pursuant to 40 CFR 60.302(b)(c).

d. At all times, the Permittee shall also, to the extent practicable, maintain and operate the grain elevator, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

2. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity that is visible by an observer looking generally toward the

Zenith (that is, looking at the sky directly overhead) from a point beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

3. Particulate matter (PM) emissions shall not exceed the following limits:

Item of Equipment	Hourly Emissions (Lb/Hour)	Annual Emissions (Ton/Year)
Rail Car Receiving Pit with Baghouse (RC05-07)	1.3	5.7

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. This permit is issued based on a negligible increase in emissions of particulate matter from the new scale tanks with the existing baghouse.

5. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulation promulgated therein.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

State Joint Construction and Operating Permit 95050192

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: John L. Cwiklewski
4666 Faries Parkway
Decatur, IL 62526

Application No.: 95050192
I.D. No.: 115015AKR
Applicant's Designation: RECEIVING
Date Received: September 21, 1995
Subject: Raw Material Receiving
Date Issued: October 26, 1995
Operating Permit Expiration Date: October 26, 2000
Location: ADM Packaged Oils Plant, 3601 East Division, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a pneumatically conveyed raw material receiving system with a fabric filter control device as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.

2. At all times the Permittee shall to the extent practicable, maintain and operate the above-referenced source including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

3. Emissions from the above-referenced receiving system shall not exceed 0.17 pounds per hour and 0.74 tons per year. These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

If you have any questions on this, please call John R. Cashman at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JRC:sad

Enclosures

cc: Region 3

State Construction and Permit 94020006

Prevention of Significant Deterioration (PSD) Approval

CONSTRUCTION PERMIT - PSD APPROVAL -- NSPS SOURCE -- REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis, Senior Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 94020006
I.D. No.: 115015AAE
Applicant's Designation: BOILERS6, 7 & 8
Date Received: February 13, 1997
Subject: Boilers
Date Issued: May 13, 1997
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and MODIFY emission source(s) and/or air pollution control equipment consisting of addition of two circulating fluid bed boilers (#7 and 8), two gas fired boilers (#1 and 2), and coal, limestone and ash storage and handling system and modification of one existing CFB boiler #6, and eight existing gas fired boilers (#3, 4, 5, 6, 7, 8, 9, 10), with associated control equipment as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

In conjunction with this permit, approval for the above activity is given with respect to the federal rules for Prevention of Significant Deterioration of Air Quality Regulations (PSD) for the above referenced equipment as described in the application, in that the Illinois Environmental Protection Agency (IEPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency (USEPA) and the IEPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the findings and conditions which follow:

Findings

1a. Archer Daniels Midland Co. (ADM) operates boilers to supply steam for its grain processing operations and to generate electricity.

b. ADM has requested a permit to construct two circulating fluidized bed (CFB) boilers, each with a baghouse, a selective non-catalytic reduction system and limestone injection, two gas fired boilers with low NO_x burners and flue gas recirculation, two ash silos with baghouses and one limestone storage silo.

c. ADM has also requested a revised permit for increased operating rate of its existing CFB boiler with existing baghouse, and

d. ADM has also requested a revised permit for a usage increase without restrictions on hours of use for eight gas fired boilers (Nos. 3-10) in conjunction with special condition 3d. They are permitted for use only to the extent that the six existing CFB boilers are not in service.

2. The plant is located in Decatur Township in Macon County. The area is currently designated attainment for all air quality standards. The county has a class II designation for Prevention of Significant Deterioration (PSD) permit review.

3a. The plant is a major source under PSD rules. The proposed project will increase potential annual emissions of 7,540 tons/year of sulfur dioxide (SO_2), 1,730 tons/yr of nitrogen oxides (NO_x), 296 tons/yr of particulate matter, 1,350 tons/yr of carbon monoxide (CO), 356 tons/yr of volatile organic compounds (VOC), and 72.8 tons/yr of fluorides. The project is therefore subject to PSD review as a major modification for the above contaminants.

4. The new and modified boilers and associated new equipment must be operated so that emissions are in compliance with (i) all applicable Pollution Control Board emission standards, (ii) federal New Source performance standards for emissions of SO_2, NO_x and PM, (iii) Best Available Control Technology (BACT) for emissions of SO_2, NO_x, PM, CO, VOC, and fluorides as set in conditions of this permit. The application submitted by ADM, as reviewed by the IEPA shows that the project will comply with these requirements. Emissions of fluorides are addressed by limits on PM and SO_2.

5. The air quality analysis submitted by ADM and reviewed by the IEPA shows that this project will not cause a violation of the ambient air quality standard. The air quality analysis also shows compliance with the allowable increment for PM, SO_2 and NO_x.

6. The IEPA has determined that the application for the proposed project complies with all applicable Pollution Control Board Regulations the federal New Source Performance Standards 40 CFR 60, Subpart Db, and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

7. A copy of the application, and the Agency's review of the application and a draft of this permit were placed in a location in the Decatur

City Clerk's Office, Decatur Civic Center, and the public has been given notice and opportunity to examine this material and to submit comments and to request and participate in a public hearing on this matter.

The IEPA is issuing approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization of IEPA.

Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by the following conditions.

2a. i. The two new CFB boilers and the two new gas fired boilers are subject to a New Source Performance Standard (NSPS) for Industrial Steam Generating Units, 40 CFR 60, Subparts A, and Db. The IEPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement.

ii. The emissions from each boiler shall not exceed the applicable limits pursuant to the New Source Performance Standard.

iii. At all times, the Permittee shall maintain and operate each boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, as required per NSPS, 40 CFR 60.11(d).

3a. The emissions from each new CFB boiler (#7 and 8) shall not exceed the following limits:

i. PM -- 0.025 lb/million Btu.

ii. SO_2 -- 0.7 lb/million Btu, and 10% of the potential SO_2 combustion concentration (90% reduction). Compliance with these limits shall be determined on a 30 day rolling average using USEPA Reference Method 19, 40 CFR 60 Appendix A.

iii. NO_x -- 0.12 lb/million Btu. Compliance with this limit shall be determined on a 30 day rolling average basis per NSPS, 40 CFR 60.46(b).

iv. CO -- 0.10 lb/million Btu.

v. VOC -- 0.032 lb/million Btu.

b. The emissions from the modified CFB boiler (#6) shall not exceed the following limits:

i. PM -- 0.025 lb/million Btu.

ii. SO_2 -- 0.7 lb/million Btu, and 10% of the potential combustion concentration (90% reduction) compliance with this limit shall be determined on a 30 day rolling average using USEPA Reference Method 19, 40 CFR 60 Appendix A.

iii. VOC -- 0.032 lb/million Btu.

c. i. Natural gas shall be the only fuel fired in the new gas fired boilers (#1 and 2).

ii. The emissions from each new gas fired boiler shall not exceed the following limits:

A. NO_x -- 0.05 lb/million Btu. Compliance with this limit shall be determined on a 30 day rolling average basis per NSPS, 40 CFR 60.46(b).

B. CO -- 0.04 lb/million Btu.

C. VOC -- 0.014 lb/million Btu.

d. i. Natural gas shall be the only fuel fired in the existing package boilers (#3, 4, 5, 6, 7, 8, 9 and 10).

ii. The emissions from each existing gas fired boiler shall not exceed the following limits:

A. For boilers Nos. 4 and 9, beginning March 1, 1996, the annual capacity factor as defined in 40 CFR 60.41(b) shall not exceed 10% or the NO_x emission shall not exceed 0.10 lbs per million Btu.

B. For boilers Nos. 3, 5, 6, 7 and 10, beginning October 1, 1997, the annual capacity factor as defined in 40 CFR 60.41(b) shall not exceed 10% or the NO_x emission shall not exceed 0.10 lbs per million Btu.

C. The existing boilers Nos. 3, 5, 6, 7 and 10 shall only be operated to the extent that the circulating fluidized bed boilers Nos. 1 through 6 and new CFB #7 and #8 are not in service as a condition for #1 through #6 covered under permit #85060030 prior to the cut-off dates as indicated above in A and B.

e. i. Emissions of particulate matter from the new limestone and ash silos shall be limited through installation of bag filters

designed to emit no more than 0.01 grains/dry standard cubic foot.

ii. Emissions of particulate matter from coal handling and conveying shall be controlled with enclosures and aspiration to bag filters.

iii. Emissions from coal storage shall be controlled by an enclosure.

Condition 3 represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act. Limits are to be met on an hourly basis, unless otherwise specified, as demonstrated by emission tests in accordance with Condition 6 and monitoring in accordance with Conditions 7, 8 and 9.

4a. Emissions from the boilers shall not exceed the limits in Table I. The limits in Table I are based upon the emission rates and the maximum firing rate specified in the permit application. The limits on NO_x emissions from a existing gas boiler shall not apply if boiler is not subject to an emission limit of 0.1 lb/million Btu pursuant to Condition 3(d)(ii).

b. Emissions of particulate matter from the new ash and limestone silos shall not exceed 2.0 and 1.7 pound/hour, and 8.8 and 7.5 tons/year, respectively.

c. i. This permit is issued based on the revision to requirements for existing gas boilers (#3 through 10) and CFB boiler #6 resulting in increase in emissions as described in Table II and III, so as to be subject to PSD, except for emissions of NO_x and CO from boiler 6.

ii. Emissions from existing CFB boiler (#6) shall not exceed the following limits:

	NO_x Emissions			CO Emissions		
	lb/MBtu	lb/hr	t/yr	lb/MBtu	lb/hr	t/yr
CFB Boiler 6	0.42	294.0	1288.7	0.15	105.0	460

These limits are based upon the emission rates, maximum firing rate and 8760 hours of operation per year as indicated in the application. Compliance with annual limits shall be determined from a running total of 12 months of data. The emission factors expressed in pound per million Btu (lb/MBtu) are based on the maximum load range of each boiler during testing of emissions in accordance with Condition 6. The limits in pound per hour (lb/hr) apply at all times.

5a. The new gas boilers (#1 and 2), new CFB boilers (#7 and 8), existing CFB boiler (#6), and existing gas boilers (#3 through 10) may be operated under this construction permit for a period of 180 days after completion of construction, or alterations.

b. i. For the new CFB boilers (#7 and 8) and the new gas fired boilers (#1 and 2), the Permittee shall fulfill applicable notification and recordkeeping requirements of the NSPS, 40 CFR 60.7 and 60.49b including:

A. Written notification of commencement of construction, no later than 30 days after such date (40 CFR 60.7(a)(1));

B. Written notification of anticipated date of initial startup, at least 30 days but not more than 60 days prior to such date (40 CFR 60.7(a)(2)); and

C. Written notification of the actual date of initial startup, within 15 days after such date (40 CFR 60.7(a)(3) and 40 CFR 60.49b(a)); and

ii. The Permittee shall notify the Agency in writing within 15 days upon the initial start-up of each of the boilers with alterations.

c. The Permittee shall notify the Agency in writing at least 30 days prior to initial firing any solid fuel other than coal in a CFB boiler.

6a. i. A. Within 60 days after achieving the maximum production rate at which the boiler will be operated but not later than 180 days after completion of its alteration or construction, the emissions shall be measured by an approved testing service as follows. The duct work from each boiler shall include a property located test port so that the boiler emissions may be tested.

CFB Boiler 6	-	PM, VOC
CFB Boiler 7	-	PM, SO_2, NO_x, CO, VOC
CFB Boiler 8	-	PM, SO_2, NO_x, CO, VOC
Gas Boiler 1	-	NO_x, CO, VOC
Gas Boiler 2	-	NO_x, CO, VOC
Gas Boiler 3, 4	-	NO_x, CO
Gas Boiler 5, 6	-	NO_x, CO
Gas Boiler 7, 8, 9, 10	-	NO_x, CO

B. The Permittee will also conduct emission tests for SO_2, NO_x, CO, VOC and PM within 90 days of a written Agency request.

C. The emission testing requirement for Boiler #7 as specified in 6ai above shall be performed prior to December 10, 1996 per letter dated September 16, 1996 from the company.

ii. A. Measurements of SO_2, PM and NO_x from the CFB boilers (#6, 7, and 8) shall be conducted and data collected in accordance with the test methods and procedures specified in 40 CFR 60.45b and 60.46b.

B. Measurements of NO_x from the new gas fired boilers shall be conducted in accordance with 40 CFR 60.46b.

C. Other emissions measurements shall be made as follows:

1. Nitrogen oxide (NOx) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 7, 7A, or 7E

2. Carbon monoxide (CO) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 10

3. Volatile organic compound (VOC) emission measurements shall be made in accordance with 40 CFR 60, Appendix A, Method 25.

4. Opacity of stack emissions shall be determined in accordance with 40 CFR 60, Appendix A, Method 9.

b. The Agency shall be notified prior to each of these tests to enable the Agency to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date, and shall be accompanied by a detailed plan describing the testing which will be performed. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Agency may at its discretion accept notifications with shorter advance notice provided that the Agency will not accept such notifications if it interferes with the Agency's ability to observe testing.

c. Three (3) copies of the Final Report(s) for each of these tests shall be forwarded to the Agency immediately after the test results are compiled and finalized.

7a. i. The Permittee shall maintain and operate continuous opacity, SO_2, NO_x and CO monitoring systems and either an O_2 or CO_2 monitoring system on the CFB boilers.

ii. The type, location, and operating procedures for the monitoring equipment for the new CFB boilers shall be approved by the Agency, prior to installation.

iii. The Permittee shall fulfill the requirements for monitoring in the NSPS, 40 CFR 60.13 and 60.45b.

b. The Permittee shall sample and analyze the fuel supply to the boilers in accordance with USEPA Reference Method 19 (40 CFR 60, Appendix A, Method 19).

c. All records with respect to fuel sampling and the operation of the monitors shall be retained for two years and shall be available for inspection and copying by the Agency.

8a. i. The Permittee shall install, evaluate, and operate a continuous emission monitoring system for the measurement of NO_x discharged from the new gas fired boilers (#1 and 2), in accordance with the provisions of 40 CFR 60.13, 40 CFR 60.48b and the applicable procedures of Appendix B, unless an operational monitoring plan is approved and implemented, pursuant to 40 CFR 60, 49b(c).

ii. In particular, the performance of the continuous NOx monitoring systems shall be evaluated using the Performance Specifications of 40 CFR 60, Appendix B prior to the emission tests required by condition 6 pursuant to 40 CFR 60.13(c) and operation of the monitor shall be verified on a daily basis in accordance with written procedures, pursuant to 40 CFR 60.13(d).

iii. In addition, when NOx emission data are not obtained because of continuous monitoring systems breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved methods to provide emission data for a minimum of 75 percent of the operating hour in steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days, pursuant to 40 CFR 60.40b(f).

b. The Permittee shall install and operate meters to measure and record fuel consumption by each boiler.

9a. i. Existing gas boilers (#3 through 10) shall be equipped with appropriate facilities for "Portable Monitoring." The Permittee shall provide the capability to perform such portable monitoring on these boilers.

ii. A. When a boiler becomes subject to an NO_x emission limit pursuant to Condition 3(d)(ii), portable monitoring shall be conducted for a period of at least two weeks over a range of representative boiler operating conditions to

establish that monitoring of operating parameters will reliably and accurately predict compliance with the NO_x limit. Such portable monitoring shall be fully operational during testing of the boilers pursuant to Condition 6.

B. Such portable monitoring shall also be conducted within 90 days of a written request from the Agency.

C. Such portable monitoring shall be performed with prior notification, as specified in Condition 6(b).

iii. A. The predictive emission report shall be submitted to Illinois Environmental Protection Agency for its acceptance and approval within 90 days after the applicable cut off dates as indicated in special condition 3d(ii.).

B. Continuous emissions monitoring, as specified above, shall be required for a boiler if parametric relationships for the boiler with low-NO_x burners to assure compliance with NO_x limits, as indicated in the application cannot be established to reliably and accurately predict compliance.

b. The Permittee shall install and operate monitors for operating parameters of the existing gas fired boilers, as indicated in the application, to predict compliance with NO_x emission limits in Condition 3(d).

10a. The Permittee shall maintain a record of the output of continuous monitoring systems required pursuant to Condition 7, 8, and 9.

b. The Permittee shall maintain a record of maintenance, calibration and operational activity associated with continuous monitoring equipment.

11a. i. The Permittee shall submit quarterly reports to the Agency of any and all opacity, SO_2, NO_x and CO measurements which exceed the respective emission limits set by Condition 3 and any operating data for existing gas fired boilers that predict exceedance of the NO_x emission limits of Condition 3. These reports shall provide for each such incident, the pollutant emission rate, the date and duration of the incident, and whether it occurred during startup, malfunction, breakdown, or shutdown. If an incident occurred during malfunction or breakdown, all corrective actions taken shall also be reported. These reports shall also specify periods during which the continuous monitoring systems were not in operation. These reports shall be submitted no later than 30 days after the end of the calendar quarter.

ii. For the CFB and new gas boilers these reports shall fulfill the applicable requirements for reporting in the NSPS, 40 CFR 60.7(c), and 60.46(b).

iii. For the CFB boilers, the Permittee shall report analyses of the fuel burned in the boilers on a quarterly basis.

b. For each of the CFB boilers, the Permittee shall maintain records of the following items:

i. Records of SO_2 emissions and operation of the boiler as related to SO_2, as specified by the NSPS (40 CFR 60.49b(k)).

ii. Records of NO_x emissions and operation of the boilers as related to NO_x, as specified by the NSPS (40 CFR 60.49b(g)).

iii. The amount of each fuel fired on a daily basis.

c. For each of the new gas fired boilers, the Permittee shall maintain records of the following items:

i. Records of NOx emissions and operation of the boiler as related to NOx, as specified by the NSPS (40 CFR 60.49b(g)).

ii. The amount of gas fired on a daily basis in million Btu/day.

d. For each of the existing gas fired boilers, the Permittee shall maintain records of the following item:

i. Records of operation of the boiler as related to emissions of NO_x, as required by Condition 9.

ii. The amount of gas fired on a daily basis in million Btu/day.

e. Steam charts and daily records of steam generation from the plant shall be maintained.

12. All records required by this permit shall be retained for three years at a readily accessible location at the plant and be available for inspection and copying by the Agency.

13. Any exceedance or violation of the requirements of this permit shall be reported to the Agency within 90 days of the event. This report shall include the date and time of the incident, a description of the incident, the level of NOx emissions on an hourly basis, if NOx limits were exceeded, and efforts made to reduce emissions and prevent future occurrences.

14. With the Annual Emission Statement submitted to the Agency in Springfield, the Permittee shall separately report actual NOx emissions for each boiler.

15. This approval to construct does not relieve the Permittee of the responsibility to comply with all Local, State and Federal Regulations which are part of the applicable Illinois State implementation plan, as well as all other applicable Federal, State and Local requirements.

It should be noted that this permit is revised to incorporate information as submitted in company's letter dated April 16, 1996, September 16, 1996 and February 13, 1997.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:drk

cc: Region 3
USEPA Region V

Table I

Boiler Emission Limits (in lbs per hour/tons per year)

New Boilers	SO_2	NO_x	PM	CO	VOC
CFB Boiler 8	1050/4,599.0	180/788.4	37.51/164.31	50/657.0	48.0/210.2
CFB Boiler 7	525/2,299.5	90/394.2	18.74/82.1	112.48/492.7	24.0/105.1
Gas Boiler 1 .	21/0.92	17.51/76.7	1.05/4.6	14.0/61.3	49/2.15
Gas boiler 2	.21/0.92	17.51/76.7	1.05/4.6	14.0/61.3	49/2.15
Subtotal (tons/yr)	6900	1336	272	1272	320

Existing Boilers	SO_2	NO_x	PM	CO	VOC
CFB Boiler 6	490/2147	294.0/1288	17.5/76.6	105.0/460	22.4/98.1
Gas Boilers 3, 4	0.23*/1.0*	36/157.6	1.1*/4.8*	14.4/63.0	0.5*/2.2*
Gas Boilers 5, 6	0.14*/0.8*	24/105.2	0.72*/3.2*	9.6/42.0	0.32*/1.4*
Gas Boilers 7, 8, 9, 10	0.18*/0.8*	30/131.6	0.92*/4.0*	10.5/46.0	3.7*/3.6*
Total (tons/yr)	9049	3018	361	1883	425

* For purposes of information only

SRS:drk

Table II

Net change in Emissions from CFB Boiler 6 (tons per year)

	SO_2	NO_x	PM	CO	VOC
Modification to CFB Boiler 6	640.8	-2.6	12.1	-77.7	29.3

The net change is based on the boiler heat input for boiler #6 is 700 MBtu/hr instead of previously permitted capacity of 491 MBtu/hr and 8760 hours per year of operation for actual and projected operations as indicated in the application. The emission factor used for net change in emissions for CFB boiler 6 for all criteria pollutants except NO_x and CO remains unchanged per previously issued permit 85060030 for boiler 6.

SRS:drk

Table III

Permit No.: 85060030
Date Issued: November, 1986

Scenario 1: Operation above 10% capacity factor	Emissions in tons per year SO_2	NO_x	PM	CO	VOC
Gas Boilers 3 & 4	1.0	157.6	4.8	63.0	2.2
Gas Boilers 5 & 6	0.6	105.2	3.2	42.0	1.4
Gas Boilers 7-10	0.8	131.6	4.0	46.0	3.6
	2.4	394.4	12.0	151	7.2

The net change is based on the emission rate from existing gas fired boilers being considered baseline.

Table III

Scenario 2: Operation restricted to 10% capacity factor

	SO_2	NO_x	PM	CO	VOC
Gas Boilers 3 & 4	0.1	31.5	0.48	6.3	0.22
Gas Boilers 5 & 6	0.06	21.0	0.32	4.2	0.14
Gas Boilers 7-10	0.08	26.3	0.40	4.6	0.36
	0.24	78.8	1.20	15.1	0.72

SRS:drk

State Construction Permit 93120004

Prevention of Significant Deterioration (PSD) Approval

CONSTRUCTION PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION APPROVAL

PERMITTEE

Archer Daniels Midland Co.
Attn: Joseph A. Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 93120004
I.D. No.: 115015AAE
Applicant's Designation: VITAMIN -E1
Date Received: June 24, 1997
Subject: Vitamin E Production
Date Issued: October 22, 1998
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a Vitamin E Production Plant, including the equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions which follow:

1. Archer Daniels Midland (ADM) has requested a revised construction permit for the Vitamin E plant (Plant) at its Decatur manufacturing complex. The revised permit would allow for greater volatile organic material (VOM) emissions from the plant. In conjunction with this revision, ADM will install additional control for VOM emissions, including a secondary scrubber on the existing mineral oil scrubber and a separate two-stage scrubber control system for methylation. This

permit also recognizes improvements already made in the plant including lowering the operating temperatures of the condensers on methylation and changes in the components and practices to lower losses from leaking valves and other components in VOM service.

2. The source is located in Decatur Township in Macon county. The area is designated attainment for all pollutants.

3. The requested permit would allow annual VOM emissions of 710 tons from the plant. The plant would therefore be subject to PSD as a major modification to an existing source for VOM emissions.

4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the plant, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.

5. The Illinois EPA has determined that the plant, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

2a. All process vents discharging VOM, hot wells (vacuum systems) associated with process units that use VOM solvent, and all VOL solvent tanks shall be enclosed and ducted through a closed vent system to a VOM emission control system.

b. All process units that entail use of VOM solvent shall be designed, constructed, and operated to prevent introduction of air into the process unit and maintain low hourly exhaust flow rate (less than 200 acfm total, hourly average) to the VOM control systems during normal operating conditions.

c. The VOM emission control systems shall be designed and constructed to achieve at least 98% control of VOM comparing the amount of VOM introduced into the processes and the emissions to the atmosphere. These control systems shall be operated and maintained in conformance with good air pollution practice.

3a. The Permittee shall implement the following practices for components and materials to minimize VOM emission losses from leaking components unless and until an equivalent practice is approved by the Illinois EPA:

i. Gaskets for inspection ports and manways shall be of low leak material such as GYLON TM, in which a non-rubber contact material or seal encases a resilient core; and

ii. Open-ended valves shall only be present as needed for routine sampling of a process.

b. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service in the process units of the plant. This program shall include the following elements as a minimum:

i. Scope: The program covers all components that are in VOM service in the process operations, other than components in vacuum service and components equipped with a closed vent system ducted to a VOM control system, where the term component includes valves (conventional valves and multi-port "octopus" valves), pumps and agitators (shaft seals), flanges, other connectors (inspection ports, manways, sight glasses, etc.), closed vent systems, and pressure relief devices.

ii. Definitions:

Leak:

An instrument reading of 10,000 ppm or greater for components other than pressure relief devices, an instrument reading of 500 ppm or greater for pressure relief devices, or observation of leaking material from a component as detected by sight, smell, or sound is considered a leak.

Low-Leak Design Pump:

A pump fitted with double mechanical inert gas pressurized seals, equipped with a permanent gauge for seal pressure and that is operated and maintained consistent with good practice, or other similar pump design as approved by the Illinois EPA that both minimizes leaks and directly reveals the presence of a leak.

iii. Inspections are conducted on at least the following basis for components using applicable instrument and source survey procedures specified by USEPA Method 21 (except that daily manual calibration is not required if the instrument is self-calibrating) or the screening procedures in such methods. Inspections are as follows:

Quarterly for valves (except for conventional valves as USEPA skip-check criteria and alternative practices established in 40 CFR 60.483-2 (NSPS for SOCMI Leaks) are satisfied) and pumps (except pumps that are of low leak design);

Annually for closed vent systems;

Within a week for a pressure relief device after it experiences a pressure release;

Within a week for the flanges and other connectors in a particular area, system or feature after such components are involved in repair, maintenance, alteration or other activity that has the potential to result in a leak from flanges or other connectors, including resealing of a manway after entry to a vessel, if absence of leaking components was not verified as a final step in such activity by use of a soap solution or other comparable technique; and

Within a week after repair of a component for which a leak was detected and could not be readily repaired within one hour.

iv. Repairs: Repairs are made as soon as practicable but not later than the following:

For a component other than a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown.

For a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown or 6 months, whichever occurs first, except that further delay of repair of a valve is allowed (beyond the next process unit shutdown) if reasonable supplies of repair parts or replacement valves are maintained but these supplies are depleted, in which case repair of a valve shall be accomplished not later than 6 months after the first process unit shutdown or 1 year after detection of the leak, whichever occurs first.

v. Tagging: A leaking component is “tagged” if it cannot be readily repaired within one hour of detection of a leak, which tag includes the date the leak was detected and the date the leak was

repaired and which tag is only removed after the repaired component is inspected.

vi. Records: Records are maintained that:

Facilitate correct and consistent identification of the components that are covered by the program, including at a minimum maintaining an up to date Process and Instrumentation Diagrams for the plant available.

Verify performance of required inspections, including date, personnel, proper implementation of inspection methods, purpose or scope of inspection, covered components and results.

Document each component leak that is identified, including identification of the component and the nature of the leak, and verify prompt repair of the leak, including the date the repair is completed and detailed explanation of the required actions for a leak repair that could not be completed within 30 days, further explanation if a repair could not be completed until process unit shutdown or thereafter, and the date required inspection of the component was performed following repair.

Compile the results of the program, including fulfillment of skip-check criteria for conventional valves when relied upon.

Identify each deviation from required practices, with appropriate identification, description and explanation.

Document proper operation, maintenance, and repair of low-leak design pumps.

vii. Revisions: The minimum provisions for tagging and recordkeeping, as specified above, may be revised by the Illinois EPA in future operating permits for the plant to the extent that the Permittee demonstrates that effective detection and repair of leaking components is still reasonably assured by the revised provisions.

Conditions 2 and 3 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

4a. Emissions of VOM by the plant shall not exceed 710 tons per year.

b. Emissions by the plant of VOM compounds that are soluble in water, e.g., methanol, shall not exceed 142 tons per year.

c. Compliance with these limits shall be determined on a rolling 12 month basis, calculated monthly.

5a. System I, the VOM control system for process operations other than methylation and for certain solvent tanks, which consists of mineral oil absorption and water absorption, shall be operated in conformance with the following as good air pollution control practices until such practices are set by the Illinois EPA based on actual operating experience and the emission testing required by Condition 8:

i. A minimum mineral oil flow rate of 22,500 lb/hr (equivalent to a minimum liquid to gas ratio of 67 gallon per 200 standard cubic foot of gas flow for mineral oil absorption).

ii. A minimum water flow rate of 1,875 lb/hr (equivalent to a minimum liquid to gas ratio of 5 gallon per 200 standard cubic foot of gas flow for water absorption).

b. System II, the VOM control system for methylation and for certain solvent tanks, which consists of chilled condensation, water absorption and mineral oil absorption, shall be operated in conformance with the following as good air pollution control practices until such practices are set by the Illinois EPA based on actual operating experience and the emission testing required by Condition 8:

i. A maximum condensation fluid inlet temperature of 5°F.

ii. A minimum water flow rate of 1,300 lb/hr (equivalent to a minimum liquid to gas ratio of 4.8 gallon per 100 standard cubic foot of gas flow for water absorption.

iii. A minimum mineral oil flow rate of 2,025 lb/hr (equivalent to a minimum liquid to gas ratio of 4.3 gallon per 100 standard cubic foot of gas flow for mineral oil absorption).

6a. Process emission (stack emissions) of VOM from the plant shall not exceed the following limits:

Operation	VOM Emissions (Lbs/Hr)	VOM Emissions (Tons/Yr)
"Methylation" (VOM System II, EP1)	6.2	43.3
"Other Processes" (VOM System I, EP2)	1.63	7.1

b. i. Emissions of particulate matter (PM) from prilling, grinding, and packaging operations shall be controlled by fabric filters designed and maintained to emit no more than 0.01 gr/dscf.

ii. Emissions of PM from these operations shall not exceed the following limits:

Operation	PM Emissions (Lbs/Hr)	PM Emissions (Tons/Yr)
Grinding & Packaging (Baghouse I, EP3)	0.1	0.44
Prilling & Packaging (Baghouse II, EP4)	0.3	1.32
	Total:	1.76

These conditions are based on representations of maximum operation and maximum actual emission rates made in the permit application.

7a. The plant may be operated for 365 days pursuant to this Construction Permit. This Condition supersedes standard Condition 6(b).

b. The Permittee shall submit monthly progress reports to the Illinois EPA during this period, which reports shall provide the status of installation of the additional VOM controls and their initial start-up, shakedown, and testing, and identify provisions of Conditions 2, 5, 6, 9 and 11 with which the Permittee cannot yet comply.

8a. i. Within 180 days of completion of construction of each VOM control system, as addressed by this permit, the system's VOM emissions shall be measured at the Permittee's expense by an approved testing service, during conditions which are representative of maximum emissions to verify compliance with the requirements in this permit.

ii. Measurements of VOM or particulate matter emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance such request.

b. The following methods and procedures shall be used for testing of emissions, as approved by the Illinois EPA. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
Volatile Organic Material	USEPA Method 18, 25 or 25A, as appropriate

c. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and particulate matter and if a significant change in the procedures for this testing is planned form the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

i. A description of the planned test procedures.

ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

iv. The methodology that will be used to determine the rate of VOM introduced into processes during the period of testing.

d. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

e. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.

f. The Final Report from testing shall include as a minimum:

i. A summary of results.

ii. General Information.

iii. A detailed description of methodology for determination of the rate of VOM introduced into processes during the period of testing, with supporting information.

iv. Detailed description of operating conditions of the emission unit(s) being tested, including:

A. Process information, process rate, e.g. raw material consumption; and

B. Control equipment information, i.e., equipment condition and operating parameters during testing.

v. Data and calculations.

vi. Conclusions.

9a. The Permittee shall install, operate, and maintain devices on each scrubber in System I and II to measure and record the scrubbant flow.

b. The Permittee shall install, operate, and maintain a device on each chilled condenser in System II to measure and record the condensation fluid inlet temperature.

c. The Permittee shall maintain logs for the operation, maintenance and repair of these monitoring devices.

10. The Permittee shall operate, maintain, and repair all air pollution particulate matter control equipment in a manner that assures the emission limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

i. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturer's recommended operating instructions.

ii. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

iii. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

iv. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

A. Date of inspection, maintenance, and repair activities.

B. Description of maintenance or repair activity if not routine preventative maintenance.

C. Probable cause for requiring maintenance or repair if not routine or preventative.

11a. The Permittee shall maintain records of the following items, which shall be kept current:

i. The amount of VOM, (lbs by type of material) typically in inventory in process area in the plant, that is, held in process vessels, in-process tanks, and piping.

ii. If the Permittee considers VOM contained in wastewater in determining compliance with Condition 4, records of the fraction of VOM in wastewater, by type of material, that is eliminated by wastewater treatment, e.g., destroyed by biodegradation, so that is not lost to the atmosphere during collection and wastewater treatment, as determined by appropriate USEPA models and analysis methods. (If this record is not maintained the Permittee need keep the records specified by condition 11(b)(iii) and (d)(iii).

iii. If the Permittee considers VOM contained in product in determining compliance with Condition 4, records of the VOM content, by type, chemically combined or bound in each such VOM containing product, as determined by stoichiometric relationships.

b. The Permittee shall maintain operating records for the following items:

i. Each receipt of VOM material, i.e., transfer from delivery vehicles or shipping containers to the plant or transfer from another operation to the plant, by type of material (lbs., as determined from scale weight tickets or records).

ii. Each shipment of VOM material, i.e., transfer to delivery vehicles or shipping containers for return to the supplier or transfer to another source from the plant, by type of material (lbs., as determined from scale weight tickets or records).

iii. Quantity of wastewater containing VOM sent from the plant for treatment (gallon/day), and its VOM content (% VOM, as determined from representative sampling and analysis).

iv. Quantity of VOM containing product(s) manufactured by the plant (lb/month) and its VOM content (% VOM, determined from representative sampling and analysis) for VOM that is not chemically combined or bound to the product.

v. Estimated amount of VOM material (lbs by type of material) in inventory in process areas in the plant, determined (1) with the initial material balance determination under this permit, and (2) on at least a calendar year basis thereafter.

vi. Operation of the plant, i.e., periods of time when either methylation or "other processes" are not in operation, i.e., have been emptied of VOM material or are otherwise closed off.

vii. Changes in plant operating procedures that would significantly increase the amount or concentration of VOM in the exhausts from process operations, including changes in the amount or type of VOM used or changes in the amount of steam or other inert gases introduced.

c. The Permittee shall maintain records for the VOM control systems as follows:

i. Each period of time when a control system was not in operation (date and duration) and whether associated process operations were in service during the period.

ii. The operating parameters of the control systems as recorded pursuant to Condition 9(a) and (b), using an averaging period that is at most an hourly block average:

A. Condensation fluid inlet temperature in each System II chilled condenser(°F).

B. System I and II scrubbant flow rate of each scrubber (gallons water or gallons mineral oil/minute).

iii. The above operating parameter(s) as manually recorded at least every 30 minutes, if automatic measurement and recording device(s) are not in service for more than two hours.

iv. VOM concentration in the exhaust (stack) from each VOM control system, measured as a percent of the Lower Explosive Limit (LEL) by an LEL Meter or comparable instrument, determined on at least a daily schedule.

d. The Permittee shall maintain monthly records of the following items with supporting calculations to determine VOM emissions from the plant by material balance:

i. The total amount of VOM (lbs) received during the month, (Refer to Condition 11(b)(i)).

ii. The total amount of VOM (lbs) shipped during the month (Refer to Condition 11(b)(i)).

iii. The total amount of VOM (lbs) eliminated with wastewater during the month, if considered by the Permittee (Refer to Condition 11(a)(i) and (b)(iii)).

iv. The total amount of VOM (lbs) contained in product during the month, if considered by the Permittee (Refer to Condition 11(a)(ii) and (b)(iv)).

v. Any significant change in the amount of VOM (lbs) in inventory in the plant, comparing the current determination for the amount of VOM in inventory with the previous determination (Refer to Condition 11(a)(i)).

vi. The total amount of VOM (lbs) emitted during the month, determined as (i) - (ii) - (iii) - (iv) - (v).

vii. The total amount of VOM (lbs) emitted during the year, determined as the total of the monthly emissions and the emissions of the previous 11 months (Refer to Condition 11(d)(vi)).

e. The Permittee shall keep records summarizing the data pursuant to Condition 11(d)(vii) to determine total emissions of water-soluble VOM and total emissions of all VOM to address compliance with Condition 4.

f. The Permittee shall record any period during which any emission unit was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a VOM control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit violated the requirements of this permit, including applicable emission limits. This record shall include the cause for noncompliance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

12a. The Permittee shall retain all records required by this permit at the source for at least three years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and immediately available to the Illinois EPA.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. The Permittee

shall mark such records "trade secret," safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, as required upon request, they shall be accompanied by a copy of the claim letter and the statement of justification, which have been dated by the Permittee and otherwise completed for the material provided to the Illinois EPA.

13. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

14a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

15. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State implementation Plan, as well as all other applicable local, state and federal requirements.

If you have any questions concerning this permit, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:jar

cc: Region 3

ATTACHMENT A

List of Operations in Vitamin E Plant

Description	Control
Esterification	System I
Methyl Ester Stripping	System I
Filtration	System I
Chromatography	System I
Distillation	System I
Vacuum System (Hot Well)	System I
Methylation	System II
Grinding and Packaging	Baghouse I
Prilling/Packaging	Baghouse II
Methanol Tanks (4)	System I or II*
Methyl Formcel Tank	System II*
Heptane Tanks (5)	System I

System I - Emission Point 2 (EP2) – Mineral oil scrubber and water scrubber

System II - Emission Point 1 (EP1) – Condensers, water scrubber, and mineral oil scrubber

* The vents from the storage tanks enter System I after the condensers

State Operating Permit 92060074

OPERATING PERMIT

PERMITTEE

Archer Daniels Midland Company
Attn: Michelle L. Bublitz
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 92060074
I.D. No.: 115015AAE
Applicants Designation: RENEWAL
Date Received: July 9, 1998
Subject: Groundwater Remediation Oil/Water Separator
Date Issued: October 6, 1998
Expiration Date: October 5, 2003
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and /or air pollution control equipment consisting of oil/water separator as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on negligible emissions of volatile organic material (VOM) from the oil/water separator. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

2. The Division of Water Pollution Control has determined that the pretreatment system and process wastewater discharge from your facility requires a Construction Permit in accordance with 35 Ill. Adm. Code 309.202.

3. The issuance of this permit does not relieve the Permittee of the responsibility of complying with the provisions of the State of Illinois Rules and Regulations, Title 35: Subtitle C, Water Pollution Control, Chapter 1. The Permittee may need to obtain a permit from the Division of Water Pollution Control for operation of the pretreatment system and wastewater discharge tributary to the Decatur Sanitary District.

If you have any questions concerning this letter, please contact Bruce Rodely at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:BDR:psj

cc: Region 3

State Operating Permit 90020024

OPERATING PERMIT -- NSPS SOURCE

PERMITTEE

Archer Daniels Midland Co.
Attn: Mark Ishihara
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 90020024
I.D. No.: 115015AAD
Applicant's Designation: Rail Dump
Date Received: August 1, 1996
Subject: Rail Dump DW4A
Date Issued: August 14, 1996
Expiration Date: August 14, 2001
Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to operate emission source(s) and/or air pollution control equipment consisting of rail dump DW4A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1a. This grain elevator is subject to a New Source Performance Standard (NSPS) for grain elevator, 40 CFR 60, Subparts A and DD adopted as 35 Ill. Adm. Code 230. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

b. The opacity from the rail dump pit shall not exceed 5%, pursuant to the New Source Performance Standard.

c. The particulate matter emission requirements stated in Condition No. 2 are more stringent than those required by the New Source Performance Standard.

	Operating Hours (Hrs/Yr)	Hourly Throughout (Lbs/Hr)	Particulate Matter Emissions (Lbs/Hr)	(T/Yr)
Rail Dump Pit	2,080	600,000	0.92	0.94

d. At all times, the Permittee shall also, to the extent practicable, maintain and operate the dump pit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

2a. The Permittee shall fulfill applicable notification and recordkeeping requirements of the NSPS, 40 CFR 60.7.

b. Appropriate operating records shall be maintained to allow the Agency to review compliance with the limits in Conditions 1, 2 and 3.

3. Any required reports and notifications concerning equipment operation, performance testing or a continuous monitoring system shall be sent to the Agency's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: IEPA, FOS, Region 3
IEPA, FOS, CMU
USEPA

State Operating Permit 85060030

OPERATING PERMIT - NSPS SOURCE

PERMITTEE

Archer Daniels Midland Company
Attn: Pat Dennis, Senior Environmental Engineer
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 85060030
I.D. No.: 115015AAE
Applicant's Designation: DCTR COGEN
Date Received: July 21, 1995
Subject: Fluidized Bed Coal Boilers and Associated Eqpt.
Date Issued: November 6, 1995
Expiration Date: July 21, 1998
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of 6 coal fired fluid bed boilers each with a multiple cyclone dust collector and fabric filter, coal unloading facilities with a spray system, coal and limestone bunkers and conveyors with a spray system, ash conveyors and 5 storage tanks, each with a primary and secondary cyclone and fabric filter, and a limestone unloading pit, storage silo and conveyors with a fabric filter, and two new gas fired package boilers (#1 and #2) as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. These coal and gas fired boilers are subject to a New Source Performance Standard (NSPS) for steam generators, 40 CFR 60, Subparts A and Db. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

b. The emissions from each boiler shall not exceed the applicable limits pursuant to the New Source Performance Standard.

c. The Permittee shall comply with applicable notification, recordkeeping, reporting, testing and monitoring requirements of the New Source Performance Standard.

d. At all times, the Permittee shall also, to the extent practicable maintain and operate the boilers, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

2a. The emissions from each coal fired boiler shall not exceed the following limits:

i. SO_2 -- 1.2 lb/10^6 Btu.

ii. SO_2 -- emissions shall not exceed 10% of the potential combustion concentration (90% reduction) or 30% of the potential combustion concentration (70% reduction) when emissions are less than 0.5 lbs/10^6 Btu. Compliance with this limit shall be determined on a 30 day rolling average using USEPA Reference Method 19, 40 CFR 60 Appendix A.

iii. NO_x -- 0.6 lb/10^6 Btu.

iv. CO -- 0.25 lb/10^6 Btu.

Condition 2 represents the applicable of the Best Available Control Technology for SO_2, NO_x, and CO as required by Section 165 of the Clean Air Act.

b. i. Natural gas shall be the only fuel fired in the new gas fired boilers (#1 and #2).

ii. The emissions from each new gas fired boiler shall not exceed the following limits:

A. NO_x -- 0.05 lb/million Btu. Compliance with this limit shall be determined on a 30 day rolling average basis per NSPS, 40 CFR 60.46(b).

B. CO -- 0.04 lb/million Btu.

C. VOC -- 0.014 lb/million Btu.

Condition 2b represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act. Limits are to be met on an hourly basis, unless otherwise specified.

3a. Emissions of particulate matter from the coal fired boilers shall not exceed 0.03 lb/10^6 Btu.

b. Emissions of particulate matter from limestone and ash silos shall be limited to no more than 0.03 grains/dry standard cubic foot. Emissions of particulate matter from material handling shall be controlled with enclosures and aspiration to bag filters. Emissions from coal storage shall be controlled by an enclosure.

4a. The total emissions from the coal fired boilers shall not exceed 387 tons/year of particulate matter (PM), 15,492 tons/year of SO_2, 7,746 tons/year of NO_x, 46.9 tons/year of OM and 3,228 tons/year of CO. These limits are based upon the emission rates specified in Condition 2 and 3 and the maximum firing rate and hours of operation specified in the

permit application. These limits do not include excess emissions during malfunction or breakdown. Compliance with these limits shall be determined from a running total of 12 months of emission data.

b. The total annual emissions from the new gas fired boilers (#1 and #2) shall not exceed 153.4 tons of NO_x, 122.6 tons of CO, 9.2 tons of PM, 4.3 tons of OM and 1.8 tons of SO_2. These limits are based upon the emission rates specified in Condition 2 and the maximum firing rate and hours of operation specified in the permit application. Compliance with these limits shall be determined from a running total of 12 months of emission data.

c. The annual particulate emissions from coal storage and handling, limestone handling and ash handling shall not exceed 0.3 tons/year.

5a. This permit is issued based on this project not resulting in a significant net emissions increase for particulate matter, when considered with contemporaneous increases and decreases in emissions.

b. Pursuant to this permit, the Permittee shall comply with particulate matter emission limits and other limits or conditions contained in the following permits, or any succeeding permits, insofar as the equipment covered by such permits had increases or decreases in emissions which are creditable:

Permit No.	Facility	Emissions Increase (T/Yr)	Emissions Decrease (T/Yr)
72110962	West Corn & Soybean Mills	21.1	352.0
72110964	East Soybean Mill	----	130.4
76120047	Alcohol Plant	Negligible	-----
76120048	East Wet Corn Mill	32.7	17.8
84070076	W. Soybean Mill Dryer-Cooler	19.1	-----
84100011	Diatomaceous Earth	Negligible	-----
84100012	Bleaching Earth	Negligible	-----
86030082	*Boiler 11	0.86	0.86
		73.8	501.1

* See Condition 5c.

c. The existing boilers shall only be operated to the extent that the new fluidized boilers are not in service.

Conditions 3 through 5 are required to ensure that the boiler plant will be constructed and operated in accordance with the description presented in the application.

6. The emissions of carbon monoxide from the boiler shall not exceed 200 ppm, corrected to 50% excess air, as required by 35 Ill. Adm. Code 216.121.

7a. The Permittee shall sample and analyze the fuel supply to the fluidized bed boilers in accordance with USEPA Reference Method 19 (40 CFR 60, Appendix A, Method 19, July 1, 1984).

b. The Permittee shall maintain and operate continuous opacity, SO_2, NO_x and CO monitoring systems on the boilers.

c. The Permittee shall maintain and operate a continuous emission monitoring system for the measurement of NO_x discharged from the new gas fired boilers (#1 and #2), in accordance with the provisions of 40 CFR 60.13, 40 CFR 60.48b and the applicable procedures of Appendix B, unless an operational monitoring plan is approved and implemented, pursuant to 40 CFR 60.49b(c).

d. All records with respect to fuel sampling and the operation of the monitors shall be retained for two years and shall be available for inspection by the Agency.

8a. The Permittee shall submit quarterly reports to the Agency of any and all opacity, SO_2, NO_x or CO measurements which exceed the respective emission limits specified above or other applicable limits. These reports shall provide for each such incident, the pollutant emission rate, the date and duration of the incident, and whether it occurred during startup, malfunction, breakdown, or shutdown. If an incident occurred during malfunction or breakdown, all corrective actions taken shall also be reported. These reports shall also specify periods during which the continuous monitoring systems were not in operation. These reports shall be submitted no later than 30 days after the end of the calendar quarter.

b. For each of the new gas fired boilers, the Permittee shall maintain records of the following items:

i. Records of NO_x emissions and operation of the boiler as related to NO_x, as specified by the NSPS (40 CFR 60.49b(g)).

ii. The amount of gas fired on a daily basis in million Btu/day.

c. Steam charts and daily records of steam generation from the plant shall be maintained.

9. All required notification and reports shall be sent to the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Field Operations Section
2009 Mall Street
Collinsville, Illinois 62234

10. This permit allows for limited test burning of alternative fuels in the boilers provided that advance notice of such test burns is provided to the Agency and Agency approval is obtained. The Agency reserves the right to require additional emission testing to be performed with any alternative fuel burned.

11. This permit allows the firing of petroleum coke blended with coal as described in the application.

12. This permit allows the burning of tire derived fuel (TDF) and wood under the following conditions:

    a. The TDF and/or wood will be burned in a blend with coal not to exceed 20% by weight.

    b. i. If ADM increases the blend beyond 10% by weight, a stack test for particulate matter shall be performed within 45 days of commencement of burning such a blend. The same procedures for test methodology and notification will apply as appear on the Cogen construction permit.

       ii. ADM will conduct a stack test for particulate matter or other pollutants regulated by the Act, within 45 days of an Agency request. The Agency may request a test if observations of the boilers indicate that the applicable emission limit may not be met.

    c. ADM shall notify the Agency in writing upon commencement of routine burning of TDF or wood and routine burning of a blend of more than 10% TDF or wood. ADM shall keep appropriate record showing the amount of TDF or wood received and blended.

The Agency has determined that operation of boiler 5 consistent with Conditions 1(d), 2(a)(i) and (ii), 3(a), 7, 8 and 12 constitutes Best Available Control Technology for burning of TDF in boiler 5, required by Section 9.4 of the Act.

It should be noted that CO monitors on fluidized bed boilers shall meet the relative accuracy required by 40 CFR 60, Appendices B and F. This permit is also issued to include operation of new gas fired boilers (#1 and #2) covered under construction permit 94020006.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:jar

cc: Region 3

State Operating Permit 96060023

217/782-2113

LIFETIME OPERATING PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 96060023
I.D. No.: 115015AOU
Applicant's Designation:
Date Received: May 14, 1999
Subject: Mixing, Packaging
Date Issued: May 25, 1999
Expiration Date: See Condition 1.
Location: 2501 Brush College, Decatur

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

2 Unloading Areas with Baghouses
2 Mixers with Baghouses
2 Packaging Areas with Baghouses

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit shall expire 180 days after the Illinois EPA sends a written request for the renewal of this permit.

b. This permit shall terminate if it is withdrawn or is superseded by a revised permit.

2. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hour/Year)	Emissions (Lb/Hr)	Emissions (Ton/Yr)
Warehouse 898 and 898A	8,760	0.3	1.3

These limits are based on information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. The Permittee shall maintain annual and monthly records of the following items:

   a. Amount of product blended and packaged.

4. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

5. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

6. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

   Illinois Environmental Protection Agency
   Division of Air Pollution Control
   Compliance Section (#40)
   P.O. Box 19276
   Springfield, Illinois 62794-9276

   <u>and</u> one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

   Illinois Environmental Protection Agency
   Division of Air Pollution Control
   2009 Mall Street
   Collinsville, Illinois 62234

7. Persons with lifetime operating permits must obtain a revised permit for any of the following changes at the source:

   a. An increase in emissions above the amount the emission unit or the source is permitted to emit;

   b. A modification;

c. A change in operations that will result in the source's noncompliance with conditions in the existing permit; or

d. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate.

It should be noted that the housekeeping equipment is exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(rr).

It should also be noted that this permit has been revised to show the two packaging areas with baghouse controls.

If you have any questions on this permit, please contact Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

State Construction Permit 97120021

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Joseph Porter
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 97120021
I.D. No.: 115015AOU
Applicant's Designation: LOC 898A
Date Received: December 5, 1997
Subject: Isolate Packaging Line
Date Issued: December 22, 1997
Location: 2501 Brush College, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an isolate packaging line with a baghouse as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on negligible emissions of particulate matter from mixing and packaging operation. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

State Construction Permit 97120021

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Chris Janick
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99040019
Applicant's Designation:
Subject: Second Pneumafil Baghouse
Date Issued: April 30, 1999
Location: 2501 Brush College, Decatur

I.D. No.: 115015AOU
Date Received: April 9, 1999

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new baghouse for the mixing operation and general housekeeping as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based on negligible emissions of particulate matter from the new baghouse. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

If you have any questions on this, please call Don Hanko at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DMH:jar

cc: Region 3

State Construction Permit 02110020

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Co.
Attn: Steven Ison
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 02110020
I.D. No.: 115015APL
Applicant's Designation: STNDBYGENS
Date Received: November 12, 2002
Subject: Boilers and Stand by Generators
Date Issued: April 10, 2003
Location: 5655 Rea's Bridge Road, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of North and South Boilers, North and South standby generators, Lime Bin, Lime bin dust collector, activated carbon bin, and activated carbon dust collector as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Boiler and Generators

1.1.1 Description

The boilers are small natural gas fired boilers with a maximum rated capacity that is less than 10 million Btu/hour each. The generators are standby, fuel oil units with a firing rate of 18.5 MBtu/hr each.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
North Boiler	Natural Gas-Fired (Nom. Capacity 2 MBtu/Hr)	None
South Boiler	Natural Gas-Fired (Nom. Capacity 2 MBtu/Hr)	None
Lime Bin	Lime Storage	Dust Collector

Emission Unit	Description	Emission Control Equipment
North Generator	Fuel Oil Fired Standby Unit	None
South Generator	Fuel Oil Fired Standby Unit	None
Activated Carbon Bins	Stores Activated carbon	Bin vent filter

1.1.3 Applicability Provisions and Applicable Regulations

a. The affected boilers for the purpose of these unit-specific conditions are the boilers as described in Conditions 1.1.1 and 1.1.2.

b. The affected generators for the purpose of these unit-specific conditions are the standby generators as described in Conditions 1.1.1 and 1.1.2.

c. The affected boilers and generators are subject to 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

d. The affected emergency generator is subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c).

i. The emissions of particulate matter into the atmosphere in any one-hour period from the affected emergency generators shall not exceed the allowable emission rates specified in the following equation:

$$E = A\ (P)^{B}$$

Where:

P = Process weight rate; and,
E = Allowable emission rate; and,

1. For process weight rates up to 408 MG/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

2. For process weight rates in excess of 408 MG/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

Where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour. [35 IAC 212.321]

e. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].

1.1.4 Non-Applicability of Regulations of Concern

This permit is issued based on the affected boilers not being subject to the New Source Performance Standard for Small Industrial-Commercial-Steam Generating Units because its maximum design heat input capacity is less than 10 MBtu/hour.

1.1.5 Operational and Production Limits and Work Practices

a. Natural gas shall be the only fuel fired in the affected boilers.

b. The rated heat input of the affected boilers shall not exceed 2 million Btu/hour.

c. The affected generators shall not exceed 500 hours of operation annually.

1.1.6 Emission Limitations

a. i. Emissions from each of the affected boilers shall not exceed the following limits:

Pollutant	Emissions (Lb/Hr)	Emissions (T/Yr)
Carbon Monoxide (CO)	0.20	0.88
Nitrogen Oxides (NO_x)	0.17	0.75

ii. This permit is issued based on negligible emissions of Volatile Organic Material (VOM), particulate matter (PM) and sulfur dioxide (SO_2) from the affected boilers. For this purpose, emissions of each pollutant shall not exceed 0.1 lb/hr and 0.44 ton/yr.

b. Emissions from each of the affected generators shall not exceed the following limits:

Pollutants	Emissions Lb/Hour	Emissions Tons/Year
PM	2.0	0.5
CO	50.2	12.55
NO_x	40.8	10.2
SO_2	9.0	2.25
VOM	5.9	1.48

These limits are based on the usage limits in condition 5, 98 operating hours per year and emission factors as listed in Condition 12.

c. This permit is issued based on negligible emissions of PM from the lime bin, lime bin dust collector, activated carbon bin, and activated carbon dust collector. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

d. This permit is issued based upon this project not constituting a major modification in accordance with 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality (PSD). Potential emissions from the affected boilers, generators, bins and associated

equipment is less than the PSD significant net emission increases thresholds.

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

a. The Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Conditions 1.1.5 and 1.1.6:

i. Type and rated capacity of the burner.

ii. Fuel consumption, as determined directly from fuel meters or indirectly from operating hours and rated capacity of the boilers.

iii. An operating and maintenance log for the affected boilers.

b. The Permittee shall maintain records of the following items for the affected generators to demonstrate compliance with Conditions 1.1.5 and 1.1.6:

i. Emissions of PM, CO, SO_2, NO_x, and VOM in lb/hour and ton/year

ii. Operating hours of each generator 12 month rolling basis.

1.1.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA of noncompliance of the affected boilers with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

i. Emissions in excess of the limits specified in Condition 1.1.6(a).

b. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected generators with the permit requirements, pursuant to

Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

c. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or continuous monitoring system shall be sent to:

IL Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

IL Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

a. Compliance with the emission limits for the affected boilers in Condition 1.1.6(a) is considered to be assured by the use of natural gas, the recordkeeping requirements of Condition 1.1.9, and by using the emissions factors for uncontrolled natural gas combustion in small boilers (< 100 MBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, March, 1998.

b. Compliance with the emission limits for the affected emergency generators shall be demonstrated using the following emission factors:

PM gram/hp hr	CO_2 gram/hp hr	NO_x gram/hp hr	VOM gram/hp hr	SO_2 % Sulfur in Fuel
0.4	8.5	6.9	1.0	0.5%

2.0 The affected boilers, generators, carbon bins, lime bin dust collector and activated carbon dust collector may be operated under this

construction permit until final action is taken on the source's CAAPP permit.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Pat Dennis
1001 Brush College Road
Decatur, Illinois 62521

Application No.: 03060083
Applicant's Designation:
Subject: Cooling Tower
Date Issued: December 29, 2003
Location: 1001 Brush College Road, Decatur

I.D. No.: 115015AAE
Date Received: September 26, 2003

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a cooling tower as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1. Description

The cooling tower will cool water for ADMs' Decatur plant.

2. List of Emission Units and Pollution Control Equipment

Emission Unit	Emission Suppression
Cooling Tower	Low Drift Design

3. Applicability Provisions and Applicable Regulations

a. The "affected cooling tower" for the purpose of these unit-specific conditions, is each piece of equipment as described in Conditions 1 and 2 unless otherwise stated in the following conditions as unit specific.

b. The affected cooling tower are subject to 35 IAC 212.321(a), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321, [35 IAC 212.321(a)].

i. The emissions of particulate matter into the atmosphere in any one hour period from the of the affected cooling tower shall not exceed the allowable emission rates specified in the following equation:

$$E = A\ (P)^B$$

Where:

P = Process weight rate

E = Allowable emission rate

1. For process weight rates up to 450 T/hr:

P	T/hr
E	lbs/hr
A	2.54
B	0.534

2. For process weight rates in excess of 450 T/hr:

P	T/hr
E	lbs/hr
A	24.8
B	0.16

Where:

P = Process weight rate in tons per hour, and

E = Allowable emission rate in pounds per hour.

[35 IAC 212.321]

4. Non-Applicability of Regulations of Concern

None

5. Operational and Production Limits and Work Practices

a. The cooling tower shall be designed to achieve a drift loss rate that is no greater than 0.005 percent.

b. The water circulation rate of the affected cooling tower shall not exceed the following limits:

(Lbs/Hr)	(Tons/Year)
30,000,000	131,000,000

6. Emission Limitations

a. Emissions from the affected cooling tower shall not exceed the following limits:

	PM	
Equipment	(Lb/Hr)	(Ton/Yr)
Cooling Tower	2.7	11.9

These limits are based on the throughput and annual operating hour limits in Condition 5 and emission factors and limits as delineated in the permit application.

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

7. Testing Requirements

None

8. Monitoring Requirements

None

9. Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected cooling tower:

a. Design specifications for the water circulation rate and drift loss factor for the cooling tower.

b. Maximum hourly emissions of PM (lb/hour) with supporting calculations.

c. Operating records for the cooling tower, e.g., operating hours or daily water circulation, and data for solids content in the water.

i. A quarterly analysis shall be performed to determine water solids content.

d. Annual emissions of PM (tons/year).

10. Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected cooling tower with the permit requirements, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports

shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

11. Operational Flexibility/Anticipated Operating Scenarios

None

12. Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 9 and the emission formula listed below:

a. To determine compliance with Condition 6, emissions from the affected cooling tower shall be based on the following emission calculation:

Where:

Circulating Water Flowrate (maximum of 60,000 gpm based on design)

Drift Loss Factor [(0.005% of Circulating Flow based on design specifications.) This factor may be lowered if through testing, or other appropriate method such a modification is demonstrated to be appropriate.]

Solids content of circulation water ppm by weight (maximum 1,250 ppm based on design specification)

Drift Loss (lb/hr) circulating water rate x 8.34 lb/gal x drift loss factor x 60 min/hr

Particulate Matter Emission = (Drift Loss x water hardness x 80%/1,000,000

13. Operation of the affect cooling tower is allowed under this construction permit until final action is taken of the facilities CAAPP permit.

Please note this permit has been revised pursuant to the Permittee's request dated September 24, 2003.

If you have any questions on this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:jar

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT -- REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 03120011 I.D. No.: 115015AAE
Applicant's Designation: BIO 1 PILOTS Date Received: October 11, 2005
Subject: Pilot Fermentation Trials
Date Issued: January 25, 2006
Location: 4666 Faries Parkway, Decatur, Macon County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of larger-scale pilot trials of pantoea citrea fermentation process in existing seed fermenter (EU-FE-10) and main fermenter (EU-FE-11) and two new scrubbers (CE-FE-09 and CE-FE-10), as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the pilot trials, including the scrubbers, in a manner consistent with good air pollution control practice for minimizing emissions.

2. This permit is issued based on the pilot trials not being subject to 40 CFR Part 60, Subpart VV, Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry because the materials being produced are not included in 40 CFR 60.489.

3. This permit does not revise or relax any of the conditions found in Construction Permit 03020009.

4a. Operating time of pilot trails shall not exceed 6,800 hours per year, total fermentation hours.

b. Emissions of volatile organic materials (VOM) from the pilot trials shall not exceed 11.2 tons/year. Compliance with these limits shall be determined from a running total of 12 months of data, i.e., from the data from each month plus the preceding 11 months.

Note: These limits establish the potential emission of the modified fermentation system, as set forth by the Permittee in the application. The actual emissions will likely be far below these limits based on bench scale testing conducted by the Permittee. However, the Permittee

has requested these higher limits since the fermentation system is being used for research and development of a new product and reliable data confirming lower levels of emissions is not yet available.

5. The following methods and procedures shall be used for testing of emissions upon request of the Illinois EPA, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60 Appendix A, and 40 CFR 61 Appendix B, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
PM	USEPA Method 5
VOM	USEPA Method 18, 25 or 25A, as appropriate

6. The Permittee shall install, operate and maintain instrumentation on each scrubber to measure scrubbant flow rate and scrubbant temperature entering the scrubber.

7a. The Permittee shall keep a file of the following for the pilot trials, which shall be updated as needed to accurately describe the various trials being conducted on the system:

i. Design information and engineering calculations for the uncontrolled emissions of the pilot trials.

ii. Maximum design exhaust flow rate for each scrubber.

iii. Minimum design scrubbant flow rate for each scrubber.

iv. Minimum and maximum design scrubbant temperature for each scrubber.

v. Design information and engineering calculation for controlled emissions of the pilot trials if the scrubbers are relied upon for air pollution control.

b. The Permittee shall keep the following records for the pilot trials:

i. Hours of operation for the pilot trials.

ii. Temperature and flow rate of the scrubbant in each scrubber, once per shift, while the fermentation trials are in operation.

iii. Records of any operation of the pilot trials when either scrubber is not operating in compliance with Condition 4 or 7(a), along with the probable cause, corrective action, or preventive measures taken.

c. The Permittee shall maintain log(s) of inspection, maintenance, and repairs for the pilot trials to demonstrate good air pollution control practice.

d. The Permittee shall keep records of the VOM emissions from the pilot trials (tons/month and tons/year) based on operating information, applicable factors, and formulas with supporting calculations.

e. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

8. The Permittee may utilize this system for the research and development of additional fermentation products. The Permittee must notify the Illinois EPA within 30 days of its intent to trial a new process. Within 180 days of operation for each new process, the Permittee must provide the Illinois EPA with engineering calculations or test data demonstrating compliance with Condition 4.

9. The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

10. The Permittee may operate the pilot trials under this construction permit for a period of five years or until operation is authorized by the source's CAAPP permit.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

Please note that this permit has been revised to increase the emission limit and operating hours for the pilot trials and to include scrubbers, which may be used to satisfy manufacturing requirements.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 94110093
I.D. No.: 115015AAE
Applicant's Designation: SORBITOL
Date Received: December 29, 2004
Subject: Crystalline Sorbitol
Date Issued: March 22, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a crystalline sorbitol operation controlled by a baghouse as described in the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

1. Emissions and operation of process equipment shall not exceed the following limits:

Equipment	Maximum Exhaust Rate (scfm)	Particulate Matter Emissions (Lb/Hr)	(Tons/Yr)
Mill, Sifter, Packaging, etc. (Crystalline Sorbitol Baghouse)	15,000	0.9	3.9

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. This permit is issued based on negligible emissions of particulate matter from the sorbitol vacuum system. For this purpose, emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.

3. At all times the Permittee shall maintain and operate the crystalline sorbitol operation and associated baghouse in a manner consistent with good air pollution control practice for minimizing emissions.

4. Upon written request from the Illinois EPA, the particulate matter emissions of the crystalline sorbitol facility shall be measured by an approved testing service, during conditions which are representative of maximum emissions.

a. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Particulate Matter	USEPA Method 3

b. At least 30 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.

iii. The specific documentations of emissions and operation which are intended to be made, including sampling and monitoring locations.

c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results.

ii. General information.

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.

B. Control equipment information, i.e. equipment condition and operating parameters during testing, and

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance, and repair.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

d. Submittals of information shall be made as follows:

i. Submittal of Test Plan - one copy to Source Emission Test Specialist and one copy to Permit Section.

ii. Notice of Test - one copy to Source Emission Test Specialist, one copy to the Regional Office, and one copy to the Permit Section.

iii. Final Report - one copy to Source Emission Test Specialist, one copy to the Regional Office, and one copy to the Permit Section.

5. The Permittee shall maintain an operating and maintenance log for the control system for the crystalline sorbitol facility:

a. Maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

b. Incidents of malfunctions, with date, duration, description, probable cause, corrective actions, and resultant emissions.

6a. The Permittee shall maintain records of the following items for the crystalline sorbitol facility and such other items as may be appropriate to allow the Illinois EPA to review compliance of the crystalline sorbitol facility with the limits in Condition 1.

i. Design data for the maximum exhaust rate of the baghouse (scfm).

ii. Design and calculations showing nominal hourly emission rate (lb/hour).

iii. Hours of operation (hours/year) and resultant emissions (tons/year).

b. These records shall be retained for three years at a readily accessible location at the source and shall be available for inspection and copying by the Illinois EPA.

7. The Permittee shall submit an annual report including the following data to the Illinois EPA:

a. The annual emissions of particulate matter with supporting activity data and calculations.

It should be noted that this permit has been revised to include an operational limitation on the sorbitol process, replacing the previous production limitation.

If you have any questions on this permit, please contact Kevin Hecht at 217/782-2113.

Donald E. Sutton
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company - East Plant
Attn: Shelley Huskey
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 05110027 I.D. No.: 115015AAE
Applicant's Designation: Date Received: November 14, 2005
Subject: Changes to Ardex AF and Grit Packaging
Date Issued: February 10, 2006
Location: 4666 Faries Parkway, Decatur, Macon County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of changes to the Ardex AF and Grit Packaging Systems as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit authorizes the modification of an existing Soy Protein Concentrate (SPC) tank (EU MC-15) (the affected tank) by changing its use to the Ardex AF and soy flour packaging, and the addition of a new bin vent dust collector (CE MC-05) for particulate matter (PM) control.

b. This permit authorizes the use of existing flour packer (EU MC-06) (the affected packer) controlled by existing flour packer receiver/baghouse (CE MC-05), which will be renamed grit packer and grit packer receiver/baghouse, to package grits. (Existing grit packer (EU MC-09) will be removed from service.)

2a. The affected units are subject to 35 IAC 212.123, which generally provides that no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122.

b. The affected units are subject to 35 IAC 212.321(b)(1), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c).

3. At all times, the Permittee shall maintain and operate the affected units and associated dust collectors in a manner consistent with good air pollution control practice for minimizing emissions.

4a. This permit is issued based on negligible emissions from affected unit EU MC-15. For this purpose, PM emissions shall not exceed 0.10 pounds/hour and 0.44 tons/year.

b. This permit is issued based on no increase in emissions of PM from handling grits in affected unit EU MC-06.

5. The Permittee may operate the affected units and associated dust collectors under this construction permit until its CAAPP permit is reissued to address these units.

Please note that existing SPC packaging equipment (EU MC-15a) controlled by existing baghouse (CE MC-07) will continue to be used to pack out soy flour products. This permit does not authorize other changes to packaging systems in the flour mill because the nature of such changes and the systems that would be affected have not be described and the effects on PM emissions have not been quantified.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

ADM - BioProducts
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 04100015 I.D. No.: 115015AAE
Applicant's Designation: Date Received: October 8, 2004
Subject: Modification of Lysine Process and CD 39(b)
Date Issued: December 16, 2005
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modification of the Lysine Process as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit authorizes a modification of the Lysine Process by allowing the use of the existing Riboflavin dryers and baghouse controls (EU/CE RB-01 and 02, renamed as EU/CE LY-18 and 19) in the Lysine Process resulting in increased emissions from Lysine fermentation, drying, and packaging.

b. This permit adds VOM limits for the emission units in the Lysine Process pursuant to Paragraph 39(b) of the Consent Decree, (United States of America et al v. Archer Daniels Midland, U.S. District Court, Central District of Illinois, Civil Action 03-2066) which requires the Permittee to apply for a permit or permit revision imposing or modifying VOM and CO limits on emission units at this source.

2a. Each emission unit in the Lysine Process is subject to 35 IAC 212.123, which provides that no person shall cause or allow the emissions of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

b. Each emission unit in the Lysine Process is subject to 35 IAC 215.301, which generally provides that no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lb/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

3. At all times, the Permittee shall maintain and operate all equipment in the Lysine Process, including associated control devices in a manner consistent with good air pollution control practice for minimizing emissions.

4a. The exhaust flow rate of the dryers, EU LY-18 and 19, each shall not exceed 12,000 scfm.

b. Exhaust dust loading to the atmosphere for each dryer shall not exceed 0.0023 gr/dscf.

5. Emissions from the Lysine Process are subject to the following provisions:

a. PM and VOM emissions shall not exceed the following limits:

Unit		PM (Lb/Hr)	PM (T/Yr)	VOM (Lb/Hr)	VOM (T/Yr)
Packaging (Dust Collector)	EU/CE LY-15	0.10	0.44	0.50	2.19
Lysine South Tower (Dust Collector)	EU/CE LY-16	0.33	1.40	0.20	0.88
Bulk Loadout (Dust Collector)	EU/CE LY-17	0.90	3.94	0.10	0.44
Spray Dryer #5 (formerly EU/CE RB-01)	EU/CE LY-18	0.24	1.05	0.30	1.32
Spray Dryer #6 (formerly EU/CE RB-02)	EU/CE LY-19	0.24	1.05	0.30	1.32
Lysine Fermentation	EU/FE LY-02	---	---	---	59.00

b. i. VOM emissions from existing units that are not being modified shall not exceed the following limits. These limits are established pursuant to Paragraph 39(b) of the Consent Decree, based on data supplied by the Permittee.

Unit		(Lb/Hr)	(Tons/Yr)
Spray Dryer No. 1	EU/CE LY-01	0.30	1.32
Spray Dryer No. 2	EU/CE LY-02	0.30	1.32
Spray Dryer No. 3	EU/CE LY-03	0.30	1.32
Spray Dryer No. 4	EU/CE LY-04	0.30	1.32
Spray Dryer No. 7	EU/CE LY-05	0.80	3.52
Spray Dryer No. 8	EU/CE LY-06	0.80	3.52
Spray Dryer No. 9	EU/CE LY-07	0.80	3.52
Spray Dryer No. 10	EU/CE LY-08	0.80	3.52
Spray Dryer No. 11	EU/CE LY-09	0.80	3.52
Spray Dryer No. 12	EU/CE LY-10	0.80	3.52
Spray Dryer No. 13	EU/CE LY-11	0.80	3.52
Spray Dryer No. 14	EU/CE LY-12	0.80	3.52
Spray Dryer No. 15	EU/CE LY-13	0.80	3.52

Unit		(Lb/Hr)	(Tons/Yr)
Spray Dryer No. 16	EU/CE LY-14	0.80	3.52

ii. This permit is issued based on negligible emissions of PM from Lysine Fermentation EU/CE LY-02. For this purpose, emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.

iii. This permit is issued based on negligible emissions of CO from the Lysine Process. For this purpose, CO emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.

c. Compliance with annual limits shall be based on a running total of 12 months of data.

d. This permit is issued based on the modification not being subject to PSD requirements for PM/PM_{10} or VOM because the increase is less than significant. In particular, the Permittee indicates that the increases in emissions will be no more than 0.85 tons/year of PM/PM_{10} and 26.4 tons/year of VOM.

6. The Permittee shall keep records of the following for the Lysine Process:

a. The monthly and annual Lysine production.

b. The monthly and annual PM emissions of each emission unit in the Lysine Process based on operating information, applicable factors, and formulas with supporting calculations.

c. i. Maximum hourly emissions of VOM of each emission unit in the Lysine Process, (or maximum emissions per batch for Lysine fermentation) based upon operating information, applicable factors, and formulas with supporting information and calculations.

ii. Information for each incident when VOM emissions would be greater than the maximum rate identified above, with description and estimate of the additional VOM emissions.

iii. The monthly and annual VOM emissions of each emission unit in the Lysine Process based on operating information, applicable factors, and formulas, with supporting calculations.

7. The Permittee shall maintain logs of inspection, maintenance, and repairs for the emission units in the Lysine Process that, at a minimum, address aspects of these units that are related to the emissions. In addition, the Permittee shall maintain logs of inspection, maintenance, and repairs for the air pollution control equipment for these units.

8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic format (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

9. The Permittee shall promptly notify the Illinois EPA of deviations from the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

10. The Permittee may operate the modified Lysine Process under this construction permit until its CAAPP permit is next reissued to address this change.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KTH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Archer Daniels Midland Company
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 05070012
Applicant's Designation:
Subject: Threonine System Modification
Date Issued: March 23, 2007
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: January 16, 2007

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of changes to the Threonine System in the Bioproducts Plant, with accompanying increase in production, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit authorizes changes in the threonine system in the bioproducts plant consisting of conversion of an existing fermenter for Threonine production, increasing the airflow in the existing dryers (EU TH-01 and 02) and associated baghouses (CE TH-01 and 02), and adding a transfer system (EU TH-03b) and associated baghouse (CE TH-03b), adding a compaction/milling unit and additional product bin to the existing packaging tower (EU TH-05).

2. No person shall cause or allow the emission of particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit. [35 IAC 212.123(a)]

3. At all times, the Permittee shall maintain and operate all equipment in the Threonine System, including associated control devices in a manner consistent with good air pollution control practice for minimizing emissions.

4a. The number of fermentation batches of Threonine per year shall not exceed 1,275.

b. i. The exhaust flow rate of the dryers, EU TH-01 and 02, each, shall not exceed 10000 scfm.

ii. Exhaust dust loading to the atmosphere for each dryer shall not exceed 0.01 gr/scf.

5a. Emissions from the Threonine System are subject to the following provisions:

i. VOM emissions from fermentation of threonine shall not exceed 18.4 tons per year, total.

ii. PM emissions shall not exceed the following limits:

Unit	(Lb/Hr)	(Tons/Yr)
Dryer #1 EU TH-01	0.9	3.8
Dryer #2 EU TH-02	0.9	3.8
Compaction/Grinding/Packing Systems EU TH-05	0.7	3.1

iii. This permit is issued based on minimal emissions of VOM from the Compaction/Grinding/Packing Systems. For this purpose, emissions shall not exceed nominal emission rates of 0.20 lb/hour and 1 ton/year.

iv. This permit is issued based on minimal emissions of VOM from the dryers. For this purpose, emissions shall not exceed nominal emission rates of 0.25 lb/hour and 1.1 tons/year.

v. This permit is issued based on negligible emissions of PM from threonine fermentation and the transfer systems. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

vi. This permit is issued based on negligible emissions of VOM from the transfer systems. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

b. Compliance with annual limits shall be based on a running total of 12 months of data.

c. This permit is issued based on the modification not being subject to PSD requirements for PM/PM_{10} and VOM because the increase is less than significant. In particular, the Permittee indicates that the annual increases in emissions would be at most 5.0 tons for PM and 10 tons for VOM.

6a. The Permittee shall keep records of the following for the Threonine System:

i. The monthly and annual PM_{10} emissions based on operating information, applicable factors, and formulas with supporting calculations.

ii. The monthly and annual VOM emissions based on operating information, applicable factors, and formulas with supporting calculations.

iii. The number of batches of Threonine produced per year.

b. The Permittee shall maintain logs of inspection, maintenance, and repairs for the dryers, transfer systems, and compaction/grinding/ packaging systems that, at a minimum, address aspects of these units that are related to the emissions. In addition, the Permittee shall maintain logs of inspection, maintenance, and repairs for the air pollution control equipment for these units.

7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

8. The Permittee shall promptly notify the Illinois EPA of deviations from permit requirements for the Threonine System. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

9a. Two copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 67294-9276

b. One copy to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

10. The Permittee may operate the threonine system under this construction permit until its CAAPP permit is next reissued to address this change.

Please note that this permit has been revised to also address the addition of a final product bin to the packaging tower.

If you have any questions on this, please call Kevin Hecht at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:KTH:psj

cc: Region 3

217/782-2113

CONSTRUCTION PERMIT
PREVENTION OF SIGNIFICANT DETERIORATION - REVISED

PERMITTEE

Archer Daniels Midland Co.
Attn: Andrea Paulek
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 99030077
Applicant's Designation: XG Transfer
Subject: Xanthan Gum Production
Date Issued: March 2, 2006
Location: 4666 Faries Parkway, Decatur

I.D. No.: 115015AAE
Date Received: July 25, 2005

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a Xanthan Gum Production Plant, including the equipment listed in Attachment A as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and the conditions, which follow:

1. Archer Daniels Midland (ADM) has requested a joint construction and operating permit for the Xanthan Gum plant (Plant) at its Decatur manufacturing complex. The permit would allow for greater volatile organic material (VOM) emissions from the plant. The VOM emissions from this plant consist of Isopropyl Alcohol (IPA).

2. The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.

3. The requested permit would allow annual VOM emissions of 500 tons from the plant. The plant would therefore be subject to PSD as a major modification to an existing source for VOM emissions.

4. After reviewing the materials submitted by ADM, Illinois EPA has determined that the plant, as proposed, would (i) be in compliance with applicable Board emission standards and (ii) utilize Best Available Control Technology (BACT) on emissions of VOM.

5. The Illinois EPA has determined that the plant, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

6. A copy of the application and the Illinois EPA's formal review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing this approval subject to the following conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization by Illinois EPA.

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply, unless superseded by the following special conditions.

2a. All process vents discharging VOM shall be enclosed and ducted through a closed vent system to a VOM emission control system.

b. The VOM emission control systems shall be designed, constructed and maintained to achieve at least 98% control of VOM comparing the amount of VOM introduced into the processes and the emissions to the atmosphere. These control systems shall be operated and maintained in conformance with good air pollution control practices.

3a. The Permittee shall use open-ended valves only as needed for routine sampling of process unless and until an equivalent practice is approved by the Illinois EPA to minimize VOM emission losses from leaks.

b. The Permittee shall implement a Leak Detection and Repair Program for components in VOM service in the process units of the plant. This program shall include the following elements as a minimum:

i. Scope: The program covers all components that are in VOM service in the process operations, other than components in vacuum service and components equipped with a closed vent system ducted

to a VOM control system, where the term component includes valves, pumps and agitators (shaft seals), flanges, other connectors (inspection ports, manways, sight glasses, etc.), closed vent systems, and pressure relief devices.

ii. Definitions:

Closed Vent System: A system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. If gas or vapor from regulated equipment is routed to a process, the process shall not be considered a closed vent system.

In Vacuum Service: Equipment is operated at an internal pressure at least 5 kilopascals (kPa) below ambient pressure.

In VOM Service: A piece of equipment that contains or contacts a process fluid that is at least 10% VOM by weight.

Leak: An instrument reading of 10,000 PPM or greater for components other than pressure relief devices, an instrument reading of 500 PPM or greater for pressure relief devices, or observation of leaking material from a component as detected by sight, smell, or sound is considered a leak.

Low-Leak Design Pump: A pump fitted with double mechanical fluid pressurized seals, equipped with a permanent gauge* for seal pressure and that is operated and maintained consistent with good practice, or other similar pump design as approved by the Illinois EPA that both minimizes leaks and directly reveals the presence of a leak.

* The pressure gauge may be installed on the individual pump or as part of the seal fluid system.

iii. Monitoring

Monitoring: Monitoring conducted on at least the following basis for components using applicable instrument and source survey procedures specified by USEPA Method 21 (except that daily manual calibration is not required if the instrument is self-calibrating) or the screening procedures in such methods. Inspections are as follows:

A. Quarterly for valves (except for conventional valves as USEPA skip-check criteria and alternative practices established in 40 CFR 60.483-2 (NSPS for SOCMI Leaks) are satisfied) and pumps (except pumps that are of low leak design);

B. Annually for closed vent systems;

C. Within a week for a pressure relief device after it experiences a pressure release;

D. Within a week for the flanges and other connectors in a particular area, system or feature after such components are involved in repair, maintenance, alteration or other activity that has the potential to result in a leak from flanges or other connectors, including resealing of a manway after entry to a vessel, if absence of leaking components was not verified as a final step in such activity by use of a soap solution or other comparable technique; and

E. Within a week after repair of a component for which a leak was detected and could not be readily repaired within one hour.

iv. Repairs: Repairs made as soon as practicable but not later than the following:

A. For a component other than a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown.

B. For a pump or valve, if a process unit shutdown is necessary to accomplish the repair, not later than the end of the next process unit shutdown or 6 months, whichever occurs first, except that further delay of repair of a valve is allowed (beyond the next process unit shutdown) if reasonable supplies of repair parts or replacement valves are maintained but these supplies are depleted, in which case repair of a valve shall be accomplished not later than 6 months after the first process unit shutdown or 1 year after detection of the leak, whichever occurs first.

v. Tagging: Tagging of leaking component if it cannot be readily repaired within one hour of detection of a leak, which tag includes the date the leak was detected and the date the leak was repaired and which tag is only removed after the repaired component is inspected.

vi. Records: Records are maintained that:

A. Facilitate correct and consistent identification of the components that are covered by the program, including, at a minimum up to date Process Diagram for the plant.

B. Verify performance of required inspections, including date, personnel, proper implementation of inspection methods, purpose or scope of inspection, covered components and their leak status(i.e. leak or no leak).

C. Document each component leak that is identified, including identification of the component and the nature of the leak, and verify prompt repair of the leak, including the date the repair is completed and detailed explanation of the required actions for a leak repair that could not be completed within 30 days, further explanation if a repair could not be completed until process unit shutdown or thereafter, and the date required inspection of the component was performed following repair.

D. Compile the results of the program, including fulfillment of skip-check criteria for conventional valves when relied upon.

E. Identify each deviation from required practices, with appropriate identification, description and explanation.

F. Document proper operation, maintenance, and repair of low-leak design pumps.

vii. Revisions: The minimum provisions for tagging and recordkeeping, as specified above, may be revised by the Illinois EPA in future operating permits for the plant to the extent that the Permittee demonstrates that effective detection and repair of leaking components is still reasonably assured by the revised provisions.

4a. The Permittee shall implement the following practices to minimize VOM losses from opening vessels and other units in the plant that may contain process materials that contain VOM. Prior to opening other vessels to the atmosphere, residual VOM that may be present shall be purged in accordance with written operating procedures developed to minimize loss of VOM to the atmosphere. These procedures shall include the following procedures that shall be updated on a regular basis to reflect the Permittee's experience with maintenance and repair of the plant unless and until an equivalent practice is approved by the Illinois EPA:

i. Prior to opening a delumper, screw press or rotary screen to the atmosphere, the vessel shall be purged to clear residual VOM. The initial purge shall be performed for a minimum of 15 minutes. If residual VOM remains, as determined by smell, an additional 15-minute purge shall be performed. All vapors resulting from the purging of the equipment shall be vented to the IPA scrubber.

ii. Prior to opening a turbo dryer to the atmosphere, the dryer shall be cooled to at least 100°F. This cooling/purging operation

shall be performed for a minimum of 30 minutes. If residual VOM remains and/or the dryer temperature is above 100°F, an additional 30-minute purge shall be performed. All purge vapors shall be vented to the turbo-dryer scrubber.

b. Any VOM containing material removed in bulk from equipment due to maintenance and repair procedures shall be handled in closed containers immediately upon removal from the process unit and disposed of in a manner that minimizes loss of VOM to the atmosphere if possible, e.g., reintroducing to the process.

c. All IPA, IPA containing waste and IPA containing product shall be stored in sealed, non-leaking containers.

d. The Permittee shall keep maintenance log(s) for the plant that includes as a minimum:

   i. Maintenance activities, with affected unit, dates and descriptions of inspections and confirmation of implementation of required repair actions;

   ii. The written procedures required by condition 4(a).

   iii. Detailed information concerning opening of vessels containing VOM including as a minimum:

      A. Access panel(s) that had to be removed and total time access panel(s) were open;

      B. VOM measured in PPM at access panel opening with method of determination, e.g., FID meter or Draeger tube;

      C. Approximate amount of VOM containing material removed, if any, and estimated VOM content; and

      D. Likely or possible cause of condition requiring maintenance with opening of the vessel to remove VOM containing material.

e. The Permittee shall evaluate the above records and the operation of the plant to refine operating procedures and maintenance/repair procedures to minimize VOM losses associated with opening process vessels and other units. This evaluation shall include a written report that contains at a minimum a summary of the above records; an estimate of total losses of VOM associated with opening of process vessels; an estimate of the fraction of such VOM loss that is not lost to the atmosphere with explanation, identification of principle causes by such openings, a detailed discussion of possible measures to reduce such losses, and a plan of actions to reduce such losses. This evaluation shall be conducted on a semi annual basis if annual VOM emissions as

determined in accordance with condition 5, are greater than 300 tons/year; annually if VOM emissions are greater than 200 tons/year; or otherwise on a biannual basis.

Conditions 2, 3 and 4 address Best Available Control Technology as required by Section 165 of the Clean Air Act.

5a. Total plant emissions of VOM shall not exceed 500 tons per year. Compliance with this limit shall be determined on a rolling 12 month basis, calculated monthly in accordance with condition 10(e).

b. Stack emissions of VOM from the plant shall not exceed 9.0 lb/hr and 39.42 tons per year. Compliance with this limit shall be determined at the exhaust of the packed bed scrubber.

c. Total plant emissions of VOM shall not exceed 300 tons per year on a 3 year rolling average. Compliance with this limit shall be determined on a rolling three year basis, calculated monthly in accordance with condition 10(e).

6a. Operation and particulate matter emissions of equipment shall not exceed the following limits:

Desig.	Equipment	Exhaust Flow Rate (dscf/m)	PM Emissions (Lb/Hr)	PM Emissions (T/Yr)	PM_{10} Emissions (Lb/Hr)	PM_{10} Emissions (T/Yr)
EP2-I	Gum Grind-Food Grade	12,700	0.87	3.81	0.78	3.43
EP2-II	Gum Grinding-Food Grade	12,500	0.86	3.77	0.77	3.39
EP3	Agglomerate Dryer I	7,500	0.51	2.23	0.46	2.01
EP4	Agglomerate Dryer II	7,500	0.51	2.23	0.46	2.01
EP5	Screen/Pack I	3,500	0.24	1.05	0.22	0.95
EP6	Screen/Pack II	6,000	0.41	1.80	0.37	1.62
EP	Gum Transfer I	700	0.06	0.26	0.05	0.24
EP9	Gum Transfer II	700	0.06	0.26	0.05	0.24
EP10	Gum Transfer II	700	0.06	0.26	0.05	0.24
			Total	15.68		14.11

These limits are based on the information provided in the permit application.

b. This permit is issued based on negligible emissions of particulate matter from equipment not addressed above. For this purpose, total emissions shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.

7. The VOM control system(s) for process operations, which consist of condensers and packed bed scrubbers, shall be operated in conformance with good air pollution control practice, by maintaining the maximum outlet temperature of condensers and the minimum scrubbant flow rate*

and pressure drop of the scrubber within the levels measured during emission testing in accordance with Condition 11.

* Scrubbant flow rate may be maintained at a level proportionate to the exhaust flow rate, if flow rate is measured.

8a. The Permittee shall install, operate, and maintain a device for monitoring scrubbant flow rate (gallons per minute) of the final vent scrubber, and shall maintain logs for the operation, maintenance, and repair of this device.

b. The Permittee shall manually record the scrubbant flow rate of the final vent scrubber every 30 minutes if automatic measurements and recording devices are not in service for more than two hours.

9. The Permittee shall operate, maintain, and repair all air pollution VOM and particulate matter control equipment in a manner that assures the emission limits set in this permit are met. The actions taken by the Permittee to meet this requirement shall include as a minimum the following:

a. Operating Procedures: Written operating procedures shall be developed and maintained describing normal air pollution control equipment operation. Such procedures shall include maintenance practices and may incorporate the manufacturers recommended operating instructions.

b. Inspections: Visual inspections of air pollution control equipment shall be conducted on at least a weekly basis.

c. Repairs: Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations in conformance with good air pollution control practice.

d. Records: Records of inspection, maintenance, and repair activities for all equipment shall be kept on site and shall include as a minimum:

i. Date of inspection, maintenance, and repair activities.

ii. Description of maintenance or repair activity if not routine preventative maintenance.

iii. Probable cause for requiring maintenance or repair if not routine or preventative.

10a. The Permittee shall maintain records of the following items. These records shall be kept on at least a monthly basis unless otherwise indicated.

i. Xanthan gum production.

b. The Permittee shall maintain records of the following items, which shall be kept current:

i. The amount of VOM, (lbs by type of material) typically in inventory in process area in the plant, that is, held in process vessels, in-process tanks, and piping.

ii. If the Permittee considers VOM contained in wastewater in determining compliance with Condition 4, records of the fraction of VOM in wastewater, by type of material, that is eliminated by wastewater treatment, e.g., destroyed by biodegradation, so that is not lost to the atmosphere during collection and wastewater treatment, as determined by appropriate USEPA models and analysis methods. (If this record is not maintained the Permittee need not keep the records specified by condition 10(c)(iii) and (e)(iii).

iii. If the Permittee considers VOM contained in product in determining compliance with Condition 5, records of the VOM content, by type, of each such VOM containing product.

c. The Permittee shall maintain operating records for the following items:

i. Each receipt of VOM material, i.e., transfer from delivery vehicles or shipping containers to the plant or transfer from another operation to the plant, by type of material (lbs., as determined from scale weight tickets or records).

ii. Each shipment of VOM material, i.e., transfer to delivery vehicles or shipping containers for return to the supplier or transfer to another source from the plant, by type of material (lbs, as determined from scale weight tickets or records).

iii. Quantity of wastewater containing VOM sent from the plant for treatment (gallon/day), and its VOM content (wt. % VOM, as determined from representative sampling and analysis).

iv. Quantity of VOM containing product(s) manufactured by the plant (lb/month) and its VOM content (wt. % VOM, determined from representative sampling and analysis).

v. Estimated amount of VOM material (lbs by type of material) in inventory in process areas in the plant, determined (1) with the initial material balance determination under this permit, and (2) on at least a calendar year basis thereafter.

vi. Operation of the plant, i.e., periods of time when various dryers and processes are not in operation, i.e., have been emptied of VOM material or are otherwise closed off.

vii. Changes in plant operating procedures that would significantly increase the amount or concentration of VOM in the exhausts from process operations, including changes in the amount or type of VOM used or changes in the amount of nitrogen or other inert gases introduced.

d. The Permittee shall maintain records for the VOM control systems as follows:

i. Scrubbant flow rate of the final vent scrubber shall be monitored in accordance with Condition 8.

ii. The following parameters shall be recorded once per shift at a minimum:

A. Scrubbant flow rate of each turbo dryer scrubber (gallons per minute).

B. Condensation fluid outlet temperature and condenser exhaust temperature for the tank vent condenser, for each of the distillation column condensers, and for each of the turbo dryer condensers (degrees F).

e. The Permittee shall maintain monthly records of the following items with supporting calculations to determine VOM emissions from the plant by material balance:

i. The total amount of VOM (lbs) received during the month, (Refer to Condition 10(c)(i)).

ii. The total amount of VOM (lbs) shipped during the month (Refer to Condition 10(c)(ii)).

iii. The total amount of VOM (lbs) eliminated with wastewater during the month, if considered by the Permittee (Refer to Condition 10(b)(ii) and (c)(iii)).

iv. The total amount of VOM (lbs) contained in product during the month, if considered by the Permittee (Refer to Condition 10(b)(iii) and (c)(iv)).

v. Any significant change in the amount of VOM (lbs) in inventory in the plant, comparing the current determination for the amount of VOM in inventory with the previous determination (Refer to Condition 10(c)(v)).

vi. The total amount of VOM (lbs) emitted during the month, determined as (i) - (ii) - (iii) - (iv) - (v).

vii. The total amount of VOM (lbs) emitted during the year, determined as the total of the monthly emissions and the emissions of the previous 11 months (Refer to Condition 10(e)(vi)).

f. The Permittee shall keep records summarizing the data pursuant to Condition 10(e)(vii) to determine total emissions of all VOM to address compliance with the conditions of this permit.

g. The Permittee shall record any period during which any emission unit was in operation when its air pollution control equipment was not in operation or was not operating properly.

i. These records shall include each period of time when an operating parameter of a VOM control system, as recorded above, deviated outside the level set as good air pollution control practice (date, duration and description of the incident).

ii. These records shall include the cause for pollution control equipment not operating properly or being out of normal service, for incidents when control equipment failed to operate properly and shall identify the corrective actions that were taken, the repairs that were made, and the steps that were taken to prevent any such reoccurrence.

iii. These records shall also identify any such periods during which an emission unit exceeded the requirements of this permit, including applicable emission limits. This record shall include the cause for the exceedance, if known, and the corrective action(s) and preventive measures taken to prevent any such reoccurrence if any.

11a. i. Within 180 days of issuance of this permit, the VOM emissions from the VOM control system shall be measured at the Permittee's expense by an approved testing service, during conditions which are representative of maximum emissions to verify compliance with Condition 5(b).

ii. Measurements of VOM and/or particulate matter emissions from specified emission unit(s) shall also be conducted upon reasonable written request from the Illinois EPA in accordance with such request.

iii. The following methods and procedures shall also be conducted upon reasonable written request from the Illinois EPA. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2

Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5
PM_{10}	USEPA Method 201 or 201A
Volatile Organic Material	USEPA Method 18, 25 or 25A, as appropriate

b. The Permittee shall submit a written test plan to the Illinois EPA for review and comment for the initial testing for VOM and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:

   i. A description of the planned test procedures.

   ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

   iii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions.

   iv. The methodology that will be used to determine the operating rate during the period of testing, e.g., the rate of VOM introduced to the plant.

c. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.

d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.

e. The Final Report from testing shall include as a minimum:

   i. A summary of results.

   ii. General Information.

   iii. A detailed description of methodology for determination of the operating rate of the plant, see 11(c)(iv), during the period of testing, with supporting information.

iv. Detailed description of operating conditions of the emission unit(s) being tested, including:

A. Process information, process rate, e.g. raw material consumption; and

B. Control equipment information, i.e. equipment condition and operating parameters during testing.

v. Data and calculations.

vi. Conclusions.

12a. The Permittee shall retain all records required by this permit at the source for at least three years, at a location where the records are readily accessible for inspection by the Illinois EPA.

b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request, as further specified below.

i. The Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the source's normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

ii. The Permittee shall identify any records that it considers to contain information that it would claim as trade secret under Section 7.1 of the Environmental Protection Act. As required by rule to claim material as a trade secret the Permittee shall mark such records trade secret, safeguard them from becoming available to persons other than those selected by the Permittee, and have available an undated claim letter for the records, accompanied by a statement of justification for its claim that the records contain trade secrets. When copies of these records are provided to the Illinois EPA, upon its request, they shall be accompanied by a copy of the claim letter and the statement of justification.

13a. With its Annual Emission Statement the Permittee shall report the annual emissions of particulate matter and volatile organic material from the plant with supporting summary activity data and calculations.

b. If there is an exceedance of the emission limits of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance and efforts to reduce emissions and future occurrences.

14a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
Telephone: 217/782-5811 Fax: 217/524-4710

b. A copy of all required reports and notifications, except the Annual Emission Report required by 35 Ill. Adm. Code, shall also be sent to the Illinois EPA at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234
Telephone: 618/346-5120

15. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois' State Implementation Plan, as well as all other applicable local, state and federal requirements.

16. This permit replaces Construction Permit Nos. 94030062, 95090213, 97070022, and Operating Permit No. 94030062.

Please note that Condition 6(a), which set emission limits for particulate matter emission units, has been revised to set separate limits for the two gum grinders (EP2-I and EP2-II) and to address the two gum transfer systems (EP8 and EP9/10). In addition, exhaust flow rates and emission limits have been modified resulting in a minimal decrease in permitted PM and PM_{10} emissions.

If you have any questions concerning this permit, please contact Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ATTACHMENT A

List of Operations in Xanthan Gum Plant

Description	Control
Xanthan Gum Dryers	Turbo Scrubbers-Wet Scrubber
Still (Distillation Columns I & II)	Distillation Column Condensers- Vent Condenser-Wet Scrubber
Screw Press (Food Grade)	Process Equipment-Vent Condenser-Wet Scrubber
Screw Press (Industrial Grade)	Process Equipment-Vent Condenser-Wet Scrubber
DSM Screen (Food Grade)	Process Equipment-Vent Condenser-Wet Scrubber
DSM Screen (Industrial Grade)	Process Equipment-Vent Condenser-Wet Scrubber
4 Drop Tanks	Tank Vent Condenser- Wet Scrubber
North and South Precip. Tanks	Tank Vent Condenser- Wet Scrubber
IPA Still Feed Tank	Tank Vent Condenser- Wet Scrubber
Distilled IPA Tank	Tank Vent Condenser- Wet Scrubber
IPA Make-Up Tank	Tank Vent Condenser- Wet Scrubber
Gum Grinder-Food Grade	Baghouse
Gum Grinder-Industrial	Baghouse
Agglomerate Dryer I	Baghouse
Agglomerate Dryer II	Baghouse
Screen/Pack I	Baghouse
Screen/Pack II	Baghouse
Gum Transfer I	Baghouse
Gum Transfer II	Baghouse

KLS:psj

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Archer Daniels Midland Company - BioProducts
Attn: Andrea Paulek, Environmental Coordinator, ADM BioProducts
4666 Faries Parkway
Decatur, Illinois 62526

Application No.: 05070024 I.D. No.: 115015AAE
Applicant's Designation: Date Received: July 12, 2005
Subject: Food Grade Xanthan Gum Modification
Date Issued: April 3, 2006
Location: 4666 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of two new screw presses, modifications of the food grade turbo dryer to include an additional delumper and a new blending and packaging line as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1. Description

Archer Daniels Midland (ADM) has requested a construction permit to modify the food grade production line in the xanthan gum plant to install two new screw presses, modifications of the food grade turbo dryer to include an additional delumper and a new blending and packaging line, affected changes. This permit does not modify the industrial xanthan gum process nor does it allow an increase in hourly or total plant VOM emissions as currently limited by the existing PSD Permit, No. 99030077, for the overall xanthan gum process.

2. List of Emission Units and Pollution Control Equipment

Process Unit	Description	Emission Control Unit
Two Screw Presses	Xanthan Gum Dewatering	Wet Scrubber & Tank Vent Condenser
Modified Turbo Dryer (Additional Delumper)	Additional Delumper to be Added to Existing Turbo Dryer	Wet Scrubber, Tank Vent Condenser, turbo Dryer II Condenser, and Turbo Dryer II Scrubber
Blending Packaging Line	Blending and Packaging of Food Grade Xanthan Gum	Baghouse

3. Emission Limitations

a. This permit does not revise the limitations on VOM emissions from the plant established in the PSD permit, as follows:

i. Total plant emissions of VOM shall not exceed 500 tons per year. Compliance with this limit shall be determined on a rolling 12 month basis, calculated monthly.

ii. Stack emissions of VOM from the plant shall not exceed 9.0 lb/hr and 39.42 tons per year. Compliance with this limit shall be determined at the exhaust of the packed bed scrubber.

iii. Total plant emissions of VOM shall not exceed 300 tons per year on a 3 year rolling average. Compliance with this limit shall be determined on a rolling three year basis, calculated monthly.

4. Non-Applicability Provisions

a. i. This Permit is issued based on the increase in emissions of VOM from the modifications to the plant, not exceeding the 27.5 tons/year. As a result, this permit is issued based on this project not being a major modification subject to the PSD rules for emissions of VOM because it will not be accompanied by significant increases in emissions, as defined under the PSD rules. (See Attachment 1)

ii. The Permittee shall, for a period of 10 years following resumption of regular operation after the modifications entailed in this project are made, operate the affected changes in such a manner that this project does not result in a significant increase in emissions of VOM and qualify as a major modification for VOM.

iii. The Permittee shall also fulfill the applicable recordkeeping and reporting requirements of the PSD rules, 40 CFR 52.21(r)(6), for this project.

5. The Permittee is allowed to operate the affected changes under this construction permit until final action is taken to incorporate these emission units in a revision to or renewal of their CAAPP permit.

If you have any questions on this, please call Kevin Smith at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KLS:psj

cc: Region 3

ATTACHMENT 1: EVALUATION OF THE CHANGE IN EMISSIONS WITH THIS PROJECT

Table 1: Past Actual Emissions of the Xanthan Gum Plant

Highest two year average.

Past Actual Emissions (Tons)	
Time Period	VOC Losses
June 2000 - May 2001	280
June 2001 - May 2002	271
Total	275.5

Table 2: Future Projected Emissions of the Affected Xanthan Gum Plant

Future Annual Emissions (Tons)	
VOM	303

Table 3: Change in Emissions

Time Period	Annual Emissions (Tons)
	VOM
Future	303.0
Past	275.5
Change	27.5
PSD Sign.	40.0

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10.2 Attachment 2 Emissions of Particulate Matter from New Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

i. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

ii. For process weight rate greater than or equal to 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.3 Attachment 3 Emissions of Particulate Matter from Existing Process Emission Units

10.3.1 Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

i. Up to process weight rates up to 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

ii. For process weight rate in excess of 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

10.4 Attachment 4 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.5 Attachment 5 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;

2. Minor Permit Modification; and

3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment

- Corrects typographical errors;

- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;

- Requires more frequent monitoring or reporting by the Permittee;

- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;

- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or

- Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

2. Minor Permit Modification

- Do not violate any applicable requirement;

- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

  - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and

  - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA; and

- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- The source's suggested draft permit/conditions;

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;

- Applications requesting a relaxation of reporting or recordkeeping requirements; and

- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or

- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or

- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	**For Illinois EPA use only**
	I.D. number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. I.D. number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents

24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	☐ Yes ☐ No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	☐ Yes ☐ No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	☐ Yes ☐ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	☐ Yes ☐ No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	☐ Yes ☐ No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	☐ Yes ☐ No ☐ Not Applicable, No TRADE SECRET information in this application

Note 1: Answering “No” to any of the above may result in the application being deemed incomplete.

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.
Authorized Signature:

_____ AUTHORIZED SIGNATURE	_____ TITLE OF SIGNATORY
_____ TYPED OR PRINTED NAME OF SIGNATORY	_____ / _____ / _____ DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source’s CAAPP permit, if necessary.

10.7 Attachment 7 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.

2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.

3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.

4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.

5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.

6. Information addressing any outstanding transfer agreement pursuant to the ERMS.

7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT,

as existing information is being incorporated by reference.

b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.

9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.html.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

10.8 Attachment 8 - Control Technology Plan for Decatur

Control Technology Plan For Decatur, IL Wet Corn Mill

March 14, 2003

TABLE OF CONTENTS

1.0 Introduction

2.0 Process Flow Diagram

3.0 Emission Units Requiring Pollution Control Equipment or Optimization of Existing Control Equipment

4.0 Engineering Design Criteria for Pollution Control Equipment

5.0 Monitoring Parameters for Pollution Control Equipment

6.0 Continuous Emission Monitors

7.0 Emission Limits

8.0 Schedules for Emission Reduction Projects

9.0 Pollution Control Equipment Performance Test Schedule and Test Methods

10.0 Procedures for Optimization of Control Equipment and Setting Emission Limits

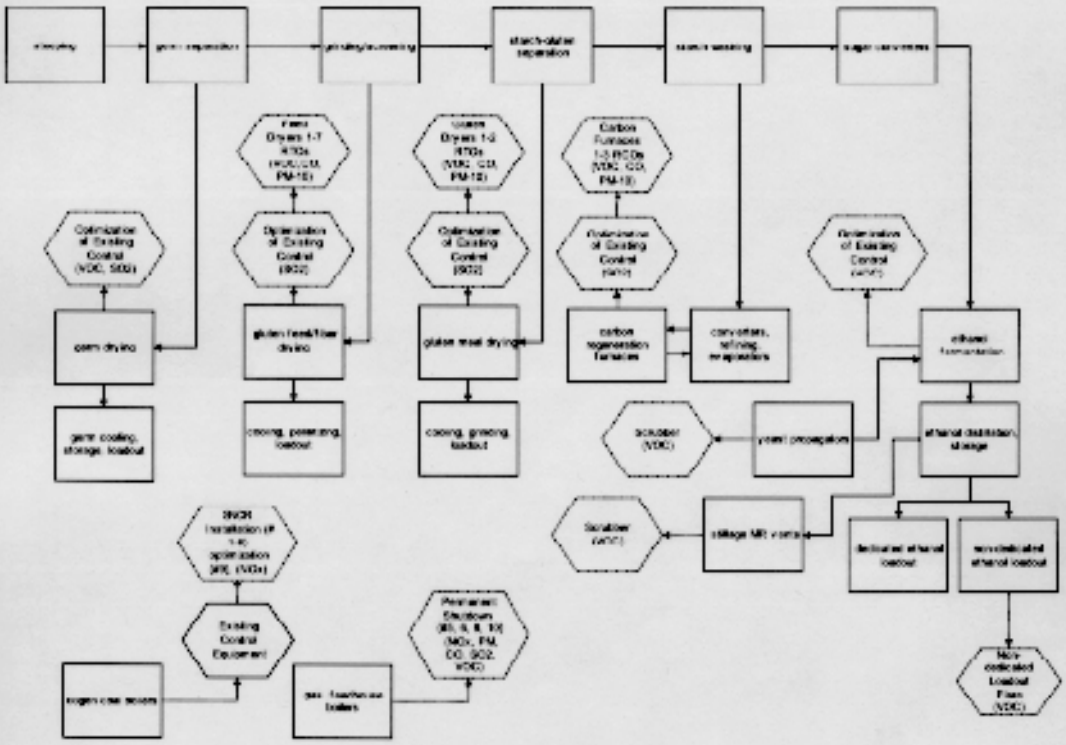
1.0 INTRODUCTION

This Control Technology Plan (CTP) contains:

a) Identification of all units to be controlled and/or optimized;
b) Engineering design criteria for all proposed controls capable of meeting the emission levels required by Section IV of this Consent Decree;
c) Monitoring parameters for all control equipment;
d) Emission limits and required reductions for each pollutant as appropriate;
e) A schedule for installation;
f) Identification of all units to be emission tested under the Consent Decree and definition of the test methods that will be used;
g) A procedure for establishing emission limits following start-up of emissions control equipment.

2.0 Process Flow Diagram

The following flow diagram presents the affected emission units and associated control technology.



Notes:

1. Dashed line shapes indicate control equipment installation/optimization or shutdown required by the consent decree.
2. Process flow diagram intended to illustrate process units, which will have additional control added.
3. Process flow does not indicate all processes or products at this facility.

3.0 Emission Units Requiring Pollution Control Equipment or Optimization of Existing Control Equipment

The following emission units and control equipment have been designated as affected units in the Consent Decree and have emission limits requiring pollution control technology or alternative projects designed to reduce emissions. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA. Changes in the requirements in the following table shall be accompanied by changes to the requirements in Sections 4, 5, 6, 9, and 10 of this CTP, as appropriate.

CG10-01	Cogen Boiler No. 1 (492 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-02	Cogen Boiler No. 2 (492 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-03	Cogen Boiler No. 3 (492 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-04	Cogen Boiler No. 4 (492 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-05	Cogen Boiler No. 5 (492 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-06	Cogen Boiler No. 6 (700 MMBtu/Hr)	CE-XX	SNCR (NOx)
CG10-10A	Cogen Boiler No. 9 (1500 MMBtu/Hr)	CE-XX	SNCR Optimization (NOx)
FH10-03I	Gluten Feed Fiber Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03J	Gluten Feed Fiber Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03K	Gluten Feed Fiber Dryer No. 3	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03L	Gluten Feed Fiber Dryer No. 4	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03G	Gluten Feed Fiber Dryer No. 5	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03H	Gluten Feed Fiber Dryer No. 6	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH10-03	Gluten Feed Fiber Dryer No. 7	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH30-02B	Gluten Meal Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH30-02D	Gluten Meal Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
FH20-02	Germ Dryers	CE-XX	Optimization of Scrubber (VOC)

Emission Unit #	Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description
		CE-XX	Optimization of Scrubber (SO2)
RF40-01	Carbon Furnace No. 1	CE-XX	RCO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
RF40-02	Carbon Furnace No. 2	CE-XX	RCO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
RF40-03	Carbon Furnace No. 3	CE-XX	RCO (VOC, CO, PM/PM10)
		CE-XX	Optimization of Scrubber (SO2)
AL10-04 to 12	Yeast Propagators	CE-XX	Scrubber (VOC)
AL20-01 to 38	Ethanol Fermenters	CE-XX	Optimization of Scrubber (VOC)
AL80-01Q	Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)
AL30-01A to F	Stillage MR Vents	CE-XX	Scrubber (VOC)
FH40-03	Feedhouse Boiler No. 5	None	Permanent Shutdown (NOx)
FH40-04	Feedhouse Boiler No. 6	None	Permanent Shutdown (NOx)
FH40-07	Feedhouse Boiler No. 9	None	Permanent Shutdown (NOx)
FH40-08	Feedhouse Boiler No. 10	None	Permanent Shutdown (NOx)

Alternative Control Equipment

ADM may substitute alternative control equipment for the equipment listed in this section, provided that ADM achieves the emission reductions specified in the Consent Decree.

Pollution Prevention/Source Reduction

ADM may substitute pollution prevention or source reduction measures for the control equipment listed in this section provided that ADM achieves the emission reductions specified in the Consent Decree.

(1) For units with emissions that have been measured by the test methods specified in Section 9.0 of this CTP and for which results have been submitted to USEPA and Illinois EPA, as summarized in Attachment 12 of the Consent Decree, achievement of equivalent emission reductions shall be determined by the following:

$X <= Y * (1-Z)$

Where: X = lbs/hr emission rate post changes
Y = lbs/hr emission rate pre changes
Z = Control efficiency required by consent decree

(2) Where emissions have not been previously measured by the test methods specified in Section 9.0, ADM shall submit a written notice and test plan to USEPA and Illinois EPA for purposes of determining a pre-change baseline. Upon completion of the test this baseline shall be used for determining equivalent reductions as specified in item 1 above.

(3) Where a concentration (ppm) limit is also specified in the Consent Decree for the emission unit, a final, post change outlet test can be used in lieu of the calculation in subparagraph (1), above, to determine equivalent emission reductions.

4.0 Engineering Design Criteria for Pollution Control Equipment

Any deviation from the design criteria listed here shall be reported in the semi-annual reports and as required under other state and federal rules. Note that the specific design criteria listed here are preliminary and subject to change pending development of additional data. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

Cogen Boiler No. 1	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 2	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 3	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 4	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 5	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 6	CE-XX	SNCR (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5% Maximum design mole ratio of NH3/uncontrolled NOx of at least 3:1
Cogen Boiler No. 9	CE-XX	SNCR Optimization (NOx)	NH3 slip <= 10 ppmvd Opacity <= 5%
Gluten Feed Fiber Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = To Be Determined (TBD)* acfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Feed Fiber Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Design Criteria/Targets
			Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Feed Fiber Dryer No. 3	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Feed Fiber Dryer No. 4	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Feed Fiber Dryer No. 5	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Feed Fiber Dryer No. 6	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*

Emission Unit Description	Control Equipment ID	Control Equipment / Optimization Description	Design Criteria Target
Gluten Feed Fiber Dryer No. 7	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Meal Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Gluten Meal Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)	Residence Time = > 0.65 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Germ Dryers	CE-XX	Optimization of Scrubber (VOC)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
	CE-XX	Optimization of Scrubber (SO2)	
Carbon Furnace No. 1	CE-XX	RCO (VOC, CO, PM/PM10)	Residence Time = > 0.9 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Carbon Furnace No. 2	CE-XX	RCO (VOC, CO, PM/PM10)	Residence Time = > 0.9 seconds Temperature => 1600 °F

Emission Unit Description	Control Equipment ID	Control Equipment / Optimization Description	Design Criteria/Targets
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Carbon Furnace No. 3	CE-XX	RCO (VOC, CO, PM/PM10)	Residence Time = > 0.9 seconds Temperature => 1600 °F
	CE-XX	Optimization of Scrubber (SO2)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Yeast Propagators	CE-XX	Scrubber (VOC)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Ethanol Fermenters	CE-XX	Optimization of Scrubber (VOC)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)	Vapor Flow Rate (to flare) = TBD*
Stillage MK Vents	CE-XX	Scrubber (VOC)	Gas Flow Rate = TBD* scfm pH => TBD* Pressure Drop => TBD* in of water column Scrubbing Liquor Flow Rate => TBD*
Feedhouse Boiler No. 5	None	Permanent Shutdown (NOx)	N/A
Feedhouse Boiler No. 6	None	Permanent Shutdown (NOx)	N/A
Feedhouse Boiler No. 9	None	Permanent Shutdown (NOx)	N/A
Feedhouse Boiler No. 10	None	Permanent Shutdown (NOx)	N/A

* Value to be determined once detailed engineering has been completed for the control equipment.

5.0 Monitoring Parameters for Pollution Control Equipment

Beginning no later than 30 days following startup of the control equipment described below, ADM shall monitor the parameters listed below. Changes to the requirements listed in the following table shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

All monitoring data collected shall be recorded and maintained on-site. Any deviation of monitoring frequency, record keeping and/or range shall be reported in the semi-annual reports and as required under other state and federal rules.

Gluten Feed Fiber Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 3	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 4	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 5	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 6	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously

Decatur Control Technology Plan Page 11 of 22

Emission Unit Description	Control Equipment ID	Control Equipment (Optimization) Description	Parameter Monitored	Compliance Operating Parameters	Monitoring Frequency
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Feed Fiber Dryer No. 7	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Meal Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Gluten Meal Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Germ Dryers	CE-XX	Optimization of Scrubber (VOC)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
	CE-XX	Optimization of Scrubber (SO2)			
Carbon Furnace No. 1	CE-XX	RCO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Carbon Furnace No. 2	CE-XX	RCO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Carbon Furnace No. 3	CE-XX	RCO (VOC, CO, PM/PM10)	Operating Temperature	>= TBD*	Continuously

Emission Unit Description	Control Equipment Identification No.	Control Equipment Type/Identification Description	Parameter Monitored	Compliance Operating Range/Limit	Monitoring Frequency
	CE-XX	Optimization of Scrubber (SO2)	pH Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD* >= TBD*	Once each day
Yeast Propagators	CE XX	Scrubber (VOC)	Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD*	Once each day
Ethanol Fermenters	CE-XX	Optimization of Scrubber (VOC)	Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD*	Once each day
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)	Presence of Pilot Flame	A device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame.	Continuously
Stillage MR Vents	CE-XX	Scrubber (VOC)	Pressure Drop Scrubbant Flow Rate	>= TBD* >= TBD*	Once each day

* Value to be proposed by ADM based on actual operating conditions at the time of the performance test.

6.0 Continuous Emission Monitors

The control equipment listed below shall be equipped with Continuous Emissions Monitors (CEMs). All monitoring data shall be collected, recorded and maintained on-site in accordance with the requirements of 40 CFR Part 60. Any deviation of emission limits shall be reported in the semi-annual reports and as required under other state and federal rules.

Emission Unit Description	Parameter Monitored
Cogen Boilers No. 1-6, 9	NOx
	SO2
	O2 or CO2
Cogen Boilers No. 7 & 8	SO2
	O2 or CO2

7.0 Emission Limits

The table below lists the emissions limits that must be met pursuant to Paragraph 20 of the Consent Decree. Any deviation from the emission limits shall be reported in the semi-annual report and as required under other state and federal rules. Where the "Emission Limits" column references "test and set," the procedure will be that outlined in Section 10.0 of this CTP.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cogen Boiler No. 1	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	Circulating Fluidized Bed Combustion (CFBC) Process	SO2	1.2 lbs/MMBtu (30-day rolling) 90% reduction (30-day rolling) unless emissions <0.5 lb/MMBtu then 70%.
Cogen Boiler No. 2	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	CFBC Process	SO2	1.2 lbs/MMBtu (30-day rolling) 90% reduction (30-day rolling) unless emissions <0.5 lb/MMBtu then 70%.
Cogen Boiler No. 3	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	CFBC Process	SO2	1.2 lbs/MMBtu (30-day rolling) 90% reduction (30-day rolling) unless emissions <0.5 lb/MMBtu then 70%.
Cogen Boiler No. 4 (492 MMBtu/hr)	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	CFBC Process	SO2	1.2 lbs/MMBtu (30-day rolling) 90% reduction (30-day rolling) unless emissions <0.5 lb/MMBtu then 70%.
Cogen Boiler No. 5	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	CFBC Process	SO2	1.2 lbs/MMBtu (30-day rolling) 90% reduction (30-day rolling) unless emissions <0.5 lb/MMBtu then 70%.
Cogen Boiler No. 6	CE-XX	SNCR (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]
	N/A	CFBC Process	SO2	0.7 lbs/MMBTU (30-day rolling) 90% reduction (30-day rolling)
Cogen Boilers No. 7 & 8	N/A	CFBC Process	SO2	0.7 lbs/MMBTU (30-day rolling) 90% reduction (30-day rolling)
Cogen Boiler No. 9	CE-XX	SNCR Optimization (NOx)	NOx	Optimize reductions, test and set (30-day rolling)[illegible]

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Pollutant	Emission Limit(s)
	N/A	CFBC Process	SO2	0.7 lbs/MMBTU (30-day rolling) 92% reduction (30-day rolling)
Gluten Feed Fiber Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 3	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 4	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 5	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 6	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set (2)
	CE-XX	Optimization of Scrubber (SO2) (1)	SO2	90% control or <= 20 ppm
Gluten Feed Fiber Dryer No. 7	CE-XX	RTO (VOC, CO, PM/PM10)(1)	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm

Decatur Control Technology Plan

Page 16 of 22

Emission Unit Description	Control Equipment #	Control Equipment / Optimization Description	Pollutant	Emission Limit(s)
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Gluten Meal Dryer No. 1	CE-XX	RTO (VOC, CO, PM/PM10) [1]	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Gluten Meal Dryer No. 2	CE-XX	RTO (VOC, CO, PM/PM10) [1]	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Germ Dryers	CE-XX	Optimization of Scrubber (VOC) [1]	VOC	95% reduction or <= 20 ppm
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Carbon Furnace No. 1	CE-XX	RCO (VOC, CO, PM/PM10) [1]	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Carbon Furnace No. 2	CE-XX	RCO (VOC, CO, PM/PM10) [1]	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Carbon Furnace No. 3	CE-XX	RCO (VOC, CO, PM/PM10) [1]	VOC	95% reduction or <= 10 ppm
			CO	90% reduction or <= 100 ppm
			PM/PM10	Test and set [2]
	CE-XX	Optimization of Scrubber (SO2) [1]	SO2	90% control or <= 20 ppm
Yeast Propagators	CE-XX	Scrubber (VOC) [1]	VOC	90% control or <= 20 ppm
Ethanol Fermenters	CE-XX	Optimization of Scrubber (VOC) [1]	VOC	90% control or <= 20 ppm

Emission Unit Description	Control Equipment ID	Control Equipment / Optimization Description	Pollutants	Emission Limit(s)
Non-dedicated Ethanol Loadout	CE-XX	Flare (VOC)	VOC	95% control
Stillage MR Vents	CE-XX	Scrubber (VOC)(1)	VOC	<= 20 ppm or Test and set (2)
Feedhouse Boiler No. 5	None	Permanent Shutdown (NOx)	NOx	N/A
Feedhouse Boiler No. 6	None	Permanent Shutdown (NOx)	NOx	N/A
Feedhouse Boiler No. 9	None	Permanent Shutdown (NOx)	NOx	N/A
Feedhouse Boiler No. 10	None	Permanent Shutdown (NOx)	NOx	N/A

(1) All emission limitations (including operating parameter ranges and limits) apply at all times when the process equipment is operating, except, in the case of process equipment or pollution control systems, during previously planned startup and shutdown periods (including planned maintenance periods), and malfunctions as defined in 40 CFR Part 63. Except for off-line RTO regeneration (i.e., bake-out) periods for RTOs not designed for on-line regeneration and not preceded by a WESP or equivalent, these startup and shutdown periods shall not exceed the minimum amount of time necessary for these events, and during these events, ADM shall minimize emissions to the extent practicable. To the extent practicable, startup and shutdown of pollution control systems will be performed during times when process equipment is also shut down. Also, ADM shall, to the extent practicable, control emissions during a malfunction event in a manner consistent with good air pollution control practice for minimizing emissions.

For RTOs not designed for on-line regeneration and not preceded by a WESP or equivalent, the emission limitations do not apply to periods of off-line RTO regeneration not to exceed 90 dryer operating hours per year and individual off-line RTO regeneration periods shall be limited to no longer than 12 dryer operating hours for each period. Off-line RTO regeneration periods that can be completed during unrelated startup, shutdown, or malfunction periods are not included in these limitations. ADM may petition USEPA and Illinois EPA to adjust these limitations based on operating experience at any specific unit on which an RTO is installed. Changes to these regeneration hour limitations shall be considered non-material modifications under Paragraph 5 of the Consent Decree, provided ADM obtains written approval of the change(s) from USEPA and Illinois EPA.

(2) Will follow the protocol in Section 10.0 of this CTP.

(3) A cold startup period is defined as that period of time when a coal-fired cogen boiler is proceeding to increase the temperature in the lower combustor from less than 400F to at least 1500F. This period shall last no more than 48 hours and NOx emissions data from this period shall be excluded when determining compliance with the optimized limits established pursuant to this section of the CTP. Ammonia injection shall begin as soon as the lower combustor temperature reaches 1500F and the cold startup period will end at this time. All data from cold startup periods after the first 48 hours, or while ammonia is injected in the boiler, will be included in determining compliance with the optimized limit.

8.0 Schedules for Emission Reduction Projects

Any deviation from the applicable schedules shall be reported in the semi-annual reports and as required under other state and federal rules.

a) The following schedule implements paragraphs 28, 29, and 30 of the Consent Decree:
Primary Schedule - The following schedule is for emission reduction projects , which will begin implementation in the first calendar year following the lodging of the consent decree.

[illegible]	[illegible]
Gluten Feed/Fiber Dryer No. 7	RTO
Carbon Furnace No. 1	RCO
Carbon Furnace No. 2	RCO
Carbon Furnace No. 3	RCO

Updated Schedule - For each subsequent calendar year for the life of the Consent Decree, ADM shall submit an updated schedule by January 30, as a part of the semiannual report required in Paragraph 44 of the Consent Decree, detailing the emission reduction projects to be undertaken during the upcoming calendar year. The updated schedule shall meet the implementation schedule required in the Consent Decree. The updated schedule shall include, if applicable, the following dates for each emission reduction project: date of change in operation, equipment shut-down date, equipment purchase date, equipment installation date, initial start-up date, and emission testing date. The updated schedule shall also include design criteria for new control equipment, method of decommissioning for permanently shutting down equipment, and any other details as applicable to each project. Changes to the updated schedule shall be considered non-material modifications under Paragraph 5 of the Consent Decree.

b) The following projects will be installed based on the following schedule.

[illegible]	[illegible]	[illegible]
Feed House Boiler 5	Permanent Shutdown	December 31, 2003
Feed House Boiler 6	Permanent Shutdown	December 31, 2003
Feed House Boiler 9	Permanent Shutdown	December 31, 2003
Feed House Boiler 10	Permanent Shutdown	December 31, 2003

9.0 Pollution Control Equipment Performance Test Schedule and Test Methods

ADM shall conduct the following performance testing pursuant to the requirements in this CTP and Paragraphs 33 and 34 in the Consent Decree.

[illegible]	[illegible]	[illegible]
Cogen Boiler No. 1-6, 9/ SNCR	NOx	CEMs Part 60 Relative Accuracy Test Assessment (RATA)
	SO2	CEMs Part 60 RATA
Cogen Boiler No. 7 & 8	SO2	CEMs Part 60 RATA
Gluten Feed/Fiber Dryers No. 1-7/ RTO	VOC (inlet & outlet)[1], CO (inlet & outlet)[1], PM/PM10 (outlet), SO2 (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 5/202, 6 or 6C, 10, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Gluten Meal Dryers No. 1-2/ RTO	VOC (inlet & outlet)[1], CO (inlet & outlet)[1], PM/PM10 (outlet), SO2 (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 5/202, 6 or 6C, 10, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Carbon Furnace No. 1-3/ (RCO)	VOC (inlet & outlet)[1], CO (inlet & outlet)[1], PM/PM10 (outlet), SO2 (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 5/202, 6 or 6C, 10, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Germ Dryers	VOC (inlet & outlet)[1], SO2 (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 6 or 6C, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Yeast Propagators	VOC (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3]
Ethanol Fermenters	VOC (inlet & outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Stillage MR Vents	VOC (outlet)[1]	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used [2, 3].
Non-dedicated Ethanol Loadout	Visible Emissions	Per 40 CFR 60.18 for open flame flare
	VOC (inlet & outlet)	As applicable, Methods 1, 2, 3A or B, 4, 18 as modified to include NCASI CI/WP-98.01, and 25 or 25A calibrated to propane will be used for enclosed flame flare [2, 3].

1. When any emissions limit in Section 7.0, expressed in ppm, is met, only outlet testing is required.
2. Tests to obtain VOC mass emission rates (i.e., Methods 1, 2, 3A or B, 4, and 18 as modified to include NCASI CI/WP-98.01 plus method 25) need only be performed on the exhaust from the final control equipment. 3. Outlet testing and control efficiency testing will be based on either Method 25 or Method 25A

calibrated to propane, whichever is applicable depending on concentration (i.e., Method 25 is used on both the inlet and outlet when the outlet total hydrocarbon (THC) concentration is >= 50 ppm as carbon and Method 25A is used on both the inlet and outlet when the outlet THC concentration is < 50 ppm as carbon).

10.0 Procedures for Optimization of Control Equipment and Setting Emission Limits

SNCR Optimization Study

ADM has agreed to install and/or optimize SNCR systems on seven of its circulating fluidized bed cogeneration boilers at Decatur.

Cogen Boilers 1 - 6
Prior to the optimization study, ADM shall submit a study plan to USEPA and Illinois EPA for approval. The plan shall address the procedures and schedule for both the optimization and demonstration phases of the study. This plan must be submitted at least 30 days prior to beginning any optimization study. In lieu of submitting a study plan and conducting a study, ADM may submit documentation showing that a boiler is equivalent in design, size and operation to a unit for which an optimization study has all ready been completed and approved, and request that the results of the earlier study be applied to the equivalent unit(s). Such request shall be deemed approved if both USEPA and Illinois EPA fail to deny the request within 30-days of submission.

The optimization studies must be initiated within 180 days of initial startup of the SNCR systems, and SNCR system installation must be completed on a schedule that meets the requirements outlined in Paragraph 30 of the Consent Decree. The optimization studies have a presumptive duration of 12 months, but this duration can be extended by approval of the USEPA and Illinois EPA.

Following completion of the optimization studies, ADM shall submit proposed final emission limits in accordance with the requirements of Paragraph 36B of the Consent Decree. This submission will propose a 30-day rolling average NOx emissions limit based on the results of the optimization tests.

Cogen Boiler 9
ADM will complete the optimization study pursuant to the requirements defined in Illinois Permit Number 97050027.

PM/PM10 & VOC Emissions Limits

ADM has agreed to establish PM/PM10 & VOC emission limits for certain emissions units based on testing to be conducted following startup of the control equipment listed in Section 3.0 of this CTP. These limits are to be established pursuant to the requirements of Paragraphs 34, 36A, and 36B of the Consent Decree. ADM will conduct a minimum of one test (i.e., three 1-hour runs) using the methods specified in Section 9.0 of this CTP. ADM may, at its option, conduct additional tests on any emission unit to provide a more extensive database on which to base the unit's limit.

10.9 Attachment 9 Applicable National Emission Standards for Hazardous Air Pollutants (NESHAP)

TITLE 40--PROTECTION OF ENVIRONMENT
CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 63--NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart A--General Provisions

Source: 59 FR 12430, Mar. 16, 1994, unless otherwise noted.

Sec. 63.1 Applicability.

(a) General.

(1) Terms used throughout this part are defined in Sec. 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in Sec. 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (including those requirements in part 60 of this chapter), or a standard issued under State authority.

(4) The provisions of this **subpart** (i.e., **subpart** A of this part) apply to owners or operators who are subject to subsequent subparts of this part, except when otherwise specified in a particular **subpart** or in a relevant standard. The general provisions in **subpart** A eliminate the repetition of requirements applicable to all owners or operators affected by this part. The general provisions in **subpart** A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7) **Subpart** D of this part contains regulations that address procedures for an owner or operator to obtain an extension of compliance with a relevant standard through an early reduction of emissions of hazardous air pollutants pursuant to section 112(i)(5) of the Act.

(8) **Subpart** E of this part contains regulations that provide for the establishment of procedures consistent with section 112(l) of the Act for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. **Subpart** E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable

requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in Sec. 63.9(i).

(13) Special provisions set forth under an applicable **subpart** of this part or in a relevant standard established under this part shall supersede any conflicting provisions of this **subpart**.

(14) Any standards, limitations, prohibitions, or other federally enforceable requirements established pursuant to procedural regulations in this part [including, but not limited to, equivalent emission limitations established pursuant to section 112(g) of the Act] shall have the force and effect of requirements promulgated in this part and shall be subject to the provisions of this **subpart**, except when explicitly specified otherwise.

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that—

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) In addition to complying with the provisions of this part, the owner or operator of any such source may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Act (42 U.S.C. 7661). For more information about obtaining an operating permit, see part 70 of this chapter.

(3) An owner or operator of a stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in Sec. 63.10(b)(3) of this **subpart**.

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source shall comply with the provisions of this **subpart** and the provisions of that standard, except as specified otherwise in this **subpart** or that standard.

(2) If a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from the permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources will specify whether—

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area

sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) Area sources affected by that emission standard are immediately subject to the requirement to apply for and obtain a title V permit in all States. If a standard fails to specify what the permitting requirements will be for area sources affected by that standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without deferral. If the owner or operator is required to obtain a title V permit, he or she shall apply for such permit in accordance with part 70 of this chapter and applicable State regulations, or in accordance with the regulations contained in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

(3) [Reserved]

(4) If the owner or operator of an existing source obtains an extension of compliance for such source in accordance with the provisions of **subpart** D of this part, the owner or operator shall comply with all requirements of this **subpart** except those requirements that are specifically overridden in the extension of compliance for that source.

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this **subpart**.

(d) [Reserved]

(e) Applicability of permit program before a relevant standard has been set under this part. After the effective date of an approved permit program in the State in which a stationary source is (or would be) located, the owner or operator of such source may be required to obtain a title V permit from the permitting authority in that State (or revise such a permit if one has already been issued to the source) before a relevant standard is established under this part. If the owner or operator is required to obtain (or revise) a title V permit, he/she shall apply to obtain (or revise) such permit in accordance with the regulations contained in part 70 of this chapter and applicable State regulations, or the regulations codified in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

Sec. 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in **subpart** D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act. Each relevant standard will define the "affected source" for the purposes of that standard. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Sources regulated under part 60 or part 61 of this chapter are not affected sources for the purposes of part 63.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of a stationary source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance plan means a plan that contains all of the following:

(1) A description of the compliance status of the affected source with respect to all applicable requirements established under this part;

(2) A description as follows:

(i) For applicable requirements for which the source is in compliance, a statement that the source will continue to comply with such requirements;

(ii) For applicable requirements that the source is required to comply with by a future date, a statement that the source will meet such requirements on a timely basis;

(iii) For applicable requirements for which the source is not in compliance, a narrative description of how the source will achieve compliance with such requirements on a timely basis;

(3) A compliance schedule, as defined in this section; and

(4) A schedule for the submission of certified progress reports no less frequently than every 6 months for affected sources required to have a schedule of compliance to remedy a violation.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part. The effective date of a permit program established under title V of the Act (42 U.S.C. 7661) is determined according to the regulations in this chapter establishing such programs.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a **subpart** of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a **subpart** of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those

credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means the maximum achievable control technology emission limitation (MACT emission limitation) for hazardous air pollutants that the Administrator (or a State with an approved permit program) determines on a case-by-case basis, pursuant to section 112(g) or section 112(j) of the Act, to be equivalent to the emission standard that would apply to an affected source if such standard had been promulgated by the Administrator under this part pursuant to section 112(d) or section 112(h) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any

construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit issued pursuant to a program approved by the EPA into a SIP as meeting the EPA's minimum criteria for Federal enforceability, including adequate notice and opportunity for EPA and public comment prior to issuance of the final permit and practicable enforceability;

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under **subpart** E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Lesser quantity means a quantity of a hazardous air pollutant that is or may be emitted by a stationary source that the Administrator establishes in order to define a major source under an applicable **subpart** of this part.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part.

One-hour period, unless otherwise defined in an applicable **subpart**, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal

operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation.

A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes **subpart** A of this part and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the

overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) or affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293°K (68°F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part and/or

(2) The permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by

a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Sec. 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram
l = liter
m = meter
m_3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^{6} gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
µg = microgram = 10^{-6} gram
µl = microliter = 10^{-6} liter

(b) Other units of measure:

Btu = British thermal unit
°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter

dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F degree Fahrenheit
ft = feet
ft^2 = square feet
ft^3 = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H_2O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute
MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd^2 = square yards
yr = year

(c) Miscellaneous:

act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

Sec. 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part shall operate any affected source in violation of the requirements of this part except under--

(i) An extension of compliance granted by the Administrator under this part; or

(ii) An extension of compliance granted under this part by a State with an approved permit program; or

(iii) An exemption from compliance granted by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) After the effective date of an approved permit program in a State, no owner or operator of an affected source in that State who is required under this part to obtain a title V permit shall operate such source except in compliance with the provisions of this part and the applicable requirements of the permit program in that State.

(4) [Reserved]

(5) An owner or operator of an affected source who is subject to an emission standard promulgated under this part shall comply with the requirements of that standard by the date(s) established in the applicable **subpart**(s) of this part (including this **subpart**) regardless of whether--

(i) A title V permit has been issued to that source; or

(ii) If a title V permit has been issued to that source, whether such permit has been revised or modified to incorporate the emission standard.

(b) Circumvention. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to--

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(3) The fragmentation of an operation such that the operation avoids regulation by a relevant standard.

(c) Severability. Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

Sec. 63.5 Construction and reconstruction.

(a) Applicability.

(1) This section implements the preconstruction review requirements of section 112(i)(1) for sources subject to a relevant emission standard that has been promulgated in this part. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under this part, the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) Requirements for existing, newly constructed, and reconstructed sources.

(1) Upon construction an affected source is subject to relevant standards for new sources, including

compliance dates. Upon reconstruction, an affected source is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new major affected source or reconstruct a major affected source subject to such standard, or reconstruct a major source such that the source becomes a major affected source subject to the standard, without obtaining written approval, in advance, from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that the source becomes an affected source subject to the standard, without notifying the Administrator of the intended construction or reconstruction. The notification shall be submitted in accordance with the procedures in Sec. 63.9(b) and shall include all the information required for an application for approval of construction or reconstruction as specified in paragraph (d) of this section. For major sources, the application for approval of construction or reconstruction may be used to fulfill the notification requirements of this paragraph.

(5) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, no person may operate such source without complying with the provisions of this **subpart** and the relevant standard unless that person has received an extension of compliance or an exemption from

compliance under Sec. 63.6(i) or Sec. 63.6(j) of this **subpart**.

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard shall be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source. If a new affected source is added to the facility, the new affected source shall be subject to all the provisions of the relevant standard that are established for new sources including compliance dates.

(c) [Reserved]

(d) Application for approval of construction or reconstruction. The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) General application requirements.

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section shall submit to the Administrator an application for approval of the construction of a new major affected source, the reconstruction of a major affected source, or the reconstruction of a major source such that the source becomes a major affected source subject to the standard. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The application shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The

application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of Sec. 63.9(b)(5) of this **subpart**. The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in Sec. 63.2;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected commencement date of the construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) The anticipated date of (initial) startup of the source;

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source

reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in Sec. 63.9(h) (see Sec. 63.9(h)(5)).

(2) Application for approval of construction. Each application for approval of construction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each point of emission for each hazardous air pollutant that is emitted (or could be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations. An owner or operator who submits approximations of control efficiencies under this

subparagraph shall submit the actual control efficiencies as specified in paragraph (d)(1)(iii) of this section.

(3) Application for approval of reconstruction. Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section--

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to

prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in subparagraphs (d)(3)(iii) through (v) of this section, above.

(4) Additional information. The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) Approval of construction or reconstruction.

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after

receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with--

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall--

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) Approval of construction or reconstruction based on prior State preconstruction review.

(1) The Administrator may approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new or reconstructed source who is subject to such requirement demonstrates to the Administrator's satisfaction that the following conditions have been (or will be) met:

(i) The owner or operator of the new or reconstructed source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located before the promulgation date of the relevant standard and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant emission standard as proposed, if the source is properly built and operated;

(ii) In making its finding, the State has considered factors substantially equivalent to those specified in paragraph (e)(1) of this section; and either

(iii) The promulgated standard is no more stringent than the proposed standard in any relevant aspect that would affect the Administrator's decision to approve or disapprove an application for approval of construction or reconstruction under this section; or

(iv) The promulgated standard is more stringent than the proposed standard but the owner or

operator will comply with the standard as proposed during the 3-year period immediately following the effective date of the standard as allowed for in Sec. 63.6(b)(3) of this **subpart**.

(2) The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph no later than the application deadline specified in paragraph (d)(1) of this section (see also Sec. 63.9(b)(2) of this **subpart**). The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph.

Sec. 63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to owners or operators of affected sources for which any relevant standard has been established pursuant to section 112 of the Act unless--

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall comply with the emission standard under section 112(f) not later than the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator shall comply with the standard as provided in paragraphs (b)(1) and (b)(2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or paragraph (b)(4) of this section shall notify the Administrator in accordance with Sec. 63.9(d) of this **subpart**.

(6) [Reserved]

(7) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected new area source (i.e., an area source for which construction or reconstruction was commenced after the proposal date of the standard) that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard, shall comply with the relevant emission standard immediately upon becoming a major source. This compliance date shall apply to new area sources that become affected major sources regardless of whether the new area source previously was affected by that standard. The new affected major source shall comply with all requirements of that standard that affect new sources.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable **subpart**(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable **subpart** of this part exceed 3 years after the effective date of such standard.

(2) After the effective date of a relevant standard established under this part pursuant to section 112(f) of the Act, the owner or operator of an existing source shall comply with such standard not later than 90 days after the standard's effective date unless the Administrator has granted an extension to the source under paragraph (i)(4)(ii) of this section.

(3)-(4) [Reserved]

(5) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected existing area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard shall comply by the date specified in the standard for existing area sources that become major sources. If no such compliance date is specified in the standard, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in that standard for other existing sources. This compliance period shall apply to existing area sources that become affected major sources regardless of whether the existing area source previously was affected by that standard. Notwithstanding the previous two sentences, however, if the existing area source becomes a major source by the addition of a new affected source or by reconstructing, the portion of the existing facility that is a new affected source or a reconstructed source shall comply with all requirements of that standard that affect new sources, including the compliance date for new sources.

(d) [Reserved]

(e) Operation and maintenance requirements.

(1) (i) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(3) Startup, shutdown, and malfunction plan.

(i) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under Sec. 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit. The purpose of the startup, shutdown, and malfunction plan is to--

(A) Ensure that, at all times, owners or operators operate and maintain affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action

taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator shall keep records of these events as specified in Sec. 63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in Sec. 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event and shall report such

actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with Sec. 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator (see Sec. 63.10(d)(5)(ii))).

(v) The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the affected source is no longer subject to the provisions of this part. In addition, if the startup, shutdown, and malfunction plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record, to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(2) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(viii) If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.

(f) Compliance with nonopacity emission standards—

(1) Applicability. The nonopacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable **subpart**.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in Sec. 63.7, unless otherwise specified in an applicable **subpart** of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance

requirements, including the evaluation of monitoring data, as specified in Sec. 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if--

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in Sec. 63.7(e) of this **subpart**; and

(D) The performance test was appropriately quality-assured, as specified in Sec. 63.7(c) of this **subpart**.

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon

obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) Use of an alternative nonopacity emission standard.

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable **subpart**, submit a proposed test plan or the results of testing and monitoring in accordance with Sec. 63.7 and Sec. 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in Sec. 63.7 and Sec. 63.8.

(3) The Administrator may establish general procedures in an applicable **subpart** that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) Compliance with opacity and visible emission standards—

(1) Applicability. The opacity and visible emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable **subpart**.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable **subpart**. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if--

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in Sec. 63.7(e) of this **subpart**; and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in Sec. 63.7(c) of this section.

(3) [Reserved]

(4) Notification of opacity or visible emission observations. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with Sec. 63.9(f), if such observations are required for the source by a relevant standard.

(5) Conduct of opacity or visible emission observations. When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in Sec. 63.7 unless one of the following conditions applies:

(A) If no performance test under Sec. 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated,

but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under Sec. 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under Sec. 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under Sec. 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard

in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of Sec. 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) Availability of records. The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) Use of a continuous opacity monitoring system.

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under Sec. 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of Sec. 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable **subpart**, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under Sec. 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under Sec. 63.7(b) of the date the performance test is scheduled to begin. Once the owner or

operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under Sec. 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under Sec. 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under Sec. 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of Sec. 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in Sec. 63.8(c) and Sec. 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in Sec. 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by

Sec. 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) Adjustment to an opacity emission standard.

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under Sec. 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that--

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as

indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) Extension of compliance with emission standards.

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) Extension of compliance for early reductions and other reductions—

(i) Early reductions. Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of **subpart** D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in **subpart** D.

(ii) Other reductions. Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same

pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) Request for extension of compliance. Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in **subpart** D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's

title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are not including emission points in an emissions average, or not later than 18 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are including emission points in an emissions average. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards, e.g., a compliance date specified by the standard is less than 12 (or 18) months after the standard's effective date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 15 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which contracts for emission control systems or process changes for emission control will be awarded, or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;

(2) The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C) A description of interim emission control steps that will be taken during the extension period, including milestones to assure proper operation and maintenance of emission control and process equipment; and

(D) Whether the owner or operator is also requesting an extension of other applicable requirements (e.g., performance testing requirements).

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) Approval of request for extension of compliance. Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will--

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30

calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application s not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with--

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate

a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with--

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date

specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraphs (i)(10)(iii) or (i)(10)(iv) of this section is not met.

15) [Reserved]

16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) Exemption from compliance with emission standards. The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

Sec. 63.7 Performance testing requirements.

(a) Applicability and performance test dates.

(1) Unless otherwise specified, this section applies to the owner or operator of an affected source required to do performance testing, or another form of compliance demonstration, under a relevant standard.

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source shall perform such tests as follows--

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial startup date before the effective date; or

(ii) Within 180 days after initial startup for a new source that has an initial startup date

after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in an applicable **subpart** of this part for an existing source subject to an emission standard established pursuant to section 112(d) of the Act, or within 180 days after startup of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance for an existing source that obtains an extension of compliance under Sec. 63.6(i); or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f) [see Sec. 63.6(b)(4)]; or

(vii) [Reserved]; or

(viii) [Reserved]; or

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see Sec. 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the

owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(b) Notification of performance test.

(1) The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test. Observation of the performance test by the Administrator is optional.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section, due to unforeseeable circumstances beyond his or her control, the owner or operator shall notify the Administrator within 5 days prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) Quality assurance program.

(1) The results of the quality assurance program required in this paragraph will be considered by the

Administrator when he/she determines the validity of a performance test.

(2) (i) Submission of site-specific test plan. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) Approval of site-specific test plan.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with--

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard, the owner or operator shall conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator

approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see paragraph (f) of this section). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in paragraph (a) of this section may be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall--

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) Performance test method audit program. The owner or operator shall analyze performance audit (PA) samples during each performance test. The owner or operator shall request performance audit materials 45 days prior to the test date. Cylinder audit gases, if available, must be obtained from the

appropriate EPA Regional Office or from the responsible enforcement authority and analyzed in conjunction with the field samples.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) Performance testing facilities. If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) Conduct of performance tests.

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under Sec. 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator--

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

(ii) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of

three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that--

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) Use of an alternative test method -

(1) General. Until permission to use an alternative test method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator--

(i) Notifies the Administrator of his or her intention to use an alternative test method not later than with the submittal of the site-specific test plan (if requested by the Administrator) or at least 60 days before the performance test is scheduled to begin if a site-specific test plan is not submitted;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate when the Administrator approves or disapproves the site-specific test plan required under paragraph (c) of this section. If the Administrator finds reasonable grounds to dispute the results obtained by the Method 301 validation process, the Administrator may require the use of a test method specified in a relevant standard.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under Sec. 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples,

determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see Sec. 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under Sec. 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) Waiver of performance tests.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under Sec. 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under Sec. 63.6(i), Sec. 63.9(h), and Sec. 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she--

(i) Approves or denies an extension of compliance under Sec. 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under Sec. 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 65 FR 62215, Oct. 17, 2000]

Sec. 63.8 Monitoring requirements.

(a) Applicability.

(1) (i) Unless otherwise specified in a relevant standard, this section applies to the owner or operator of an affected source required to do monitoring under that standard.

(ii) Relevant standards established under this part will specify monitoring systems, methods, or procedures, monitoring frequency, and other pertinent requirements for source(s) regulated by those standards. This section specifies general monitoring requirements such as those governing the conduct of monitoring and requests to use alternative monitoring methods. In addition, this section specifies detailed requirements that apply to affected sources required to use continuous monitoring systems (CMS) under a relevant standard.

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in Sec. 63.11.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator--

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) Approves the use of alternatives to any monitoring requirements or procedures.

(iii) Owners or operators with flares subject to Sec. 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the effluents from a single affected source, or from two or more affected sources, are combined before being released to the atmosphere, the owner or operator shall install an applicable CMS on each effluent.

(ii) If the relevant standard is a mass emission standard and the effluent from one affected source is released to the atmosphere through more than one point, the owner or operator shall install an applicable CMS at each emission point unless the installation of fewer systems is--

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator

shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source shall ensure the immediate repair or replacement of CMS parts to correct "routine" or otherwise predictable CMS malfunctions as defined in the source's startup, shutdown, and malfunction plan required by Sec. 63.6(e)(3). The owner or operator shall keep the necessary parts for routine repairs of the affected equipment readily available. If the plan is followed and the CMS repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under Sec. 63.10(d)(5)(i).

(ii) For those malfunctions or other events that affect the CMS and are not addressed by the startup, shutdown, and malfunction plan, the owner or operator shall report actions that are not consistent with the startup, shutdown, and malfunction plan within 24 hours after commencing actions inconsistent with the plan. The owner or operator shall send a follow-up report within 2 weeks after commencing actions inconsistent with the plan that either certifies that corrections have been made or includes a corrective action plan and schedule. The owner or operator shall provide proof that repair parts have been ordered or any other records that would indicate that the delay in making repairs is beyond his or her control.

(iii) The Administrator's determination of whether acceptable operation and maintenance

procedures are being used will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records, manufacturing recommendations and specifications, and inspection of the CMS. Operation and maintenance procedures written by the CMS manufacturer and other guidance also can be used to maintain and operate each CMS.

(2) All CMS shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. In addition, CEMS shall be located according to procedures contained in the applicable performance specification(s).

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under Sec. 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light

beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS installed in accordance with the provisions of this part and the applicable CMS performance specification(s) shall check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (e)(3)(ii) of this section. The zero (low-level) and high-level calibration drifts shall be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system must allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases shall be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces shall be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity.

(7) (i) A CMS is out of control if--

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the

necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in Sec. 63.10(e)(3).

(d) Quality control program.

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) Performance evaluation of continuous monitoring systems—

(1) General. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) Notification of performance evaluation. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under Sec. 63.7(b) or at least 60 days prior

to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) Submission of site-specific performance evaluation test plan. Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the

time period specified in Sec. 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this **subpart** using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall--

(A) Relieve an owner or operator of legal responsibility for compliance with any

applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) Conduct of performance evaluation and performance evaluation dates. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under Sec. 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under Sec. 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under Sec. 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under Sec. 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in Sec. 63.7(a), or as otherwise specified in the relevant standard.

(5) Reporting performance evaluation results.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under Sec. 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance

during any performance test required under Sec. 63.7 and described in Sec. 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under Sec. 63.7 is conducted.

(f) Use of an alternative monitoring method—

(1) General. Until permission to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) Request to use alternative monitoring method. An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section, below. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted

not later than with the site-specific test plan required in Sec. 63.7(c) (if requested) or with the site-specific performance evaluation plan (if requested) or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(5) Approval of request to use alternative monitoring method.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with--

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before

final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by Sec. 63.8(f).

(6) Alternative to the relative accuracy test. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) Criteria for approval of alternative procedures. An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in Sec. 63.7, or other tests performed following the criteria in Sec. 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative

accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) Petition to use alternative to relative accuracy test. The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) Rescission of approval to use alternative to relative accuracy test. The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and

determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) Reduction of monitoring data.

(1) The owner or operator of each CMS shall reduce the monitoring data as specified in this paragraph. In addition, each relevant standard may contain additional requirements for reducing monitoring data. When additional requirements are specified in a relevant standard, the standard will identify any unnecessary or duplicated requirements in this paragraph that the owner or operator need not comply with.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in Sec. 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard.

After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any data average computed under this part. For owners or operators complying with the requirements of Sec. 63.10(b)(2)(vii) (A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999]

Sec. 63.9 Notification requirements.

(a) Applicability and general information.

(1) The requirements in this section apply to owners and operators of affected sources that are subject to the provisions of this part, unless specified otherwise in a relevant standard.

(2) For affected sources that have been granted an extension of compliance under **subpart** D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in Sec. 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) Initial notifications.

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under Sec. 63.5(d) of this **subpart**, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of

the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of emission for each hazardous air pollutant, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each hazardous air pollutant; and

(v) A statement of whether the affected source is a major source or an area source.

(3) The owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is not required under Sec. 63.5(d), shall notify the Administrator in writing that the source is subject to the relevant standard no later than 120 days after initial startup. The notification shall provide all the information required in paragraphs (b)(2)(i) through (b)(2)(v) of this section, delivered or postmarked with the notification required in paragraph (b)(5).

(4) The owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is required under Sec. 63.5(d) shall provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major affected source, reconstruct a major

affected source, or reconstruct a major source such that the source becomes a major affected source with the application for approval of construction or reconstruction as specified in Sec. 63.5(d)(1)(i);

(ii) A notification of the date when construction or reconstruction was commenced, submitted simultaneously with the application for approval of construction or reconstruction, if construction or reconstruction was commenced before the effective date of the relevant standard;

(iii) A notification of the date when construction or reconstruction was commenced, delivered or postmarked not later than 30 days after such date, if construction or reconstruction was commenced after the effective date of the relevant standard;

(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) After the effective date of any relevant standard established by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that it becomes an affected source subject to such standard, shall notify the Administrator, in writing, of the intended construction or reconstruction. The notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The notification shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective

date. The notification shall include all the information required for an application for approval of construction or reconstruction as specified in Sec. 63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill the requirements of this paragraph.

(c) Request for extension of compliance. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with Sec. 63.6(i)(5) of this **subpart**, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in Sec. 63.6(i)(4) through Sec. 63.6(i)(6).

(d) Notification that source is subject to special compliance requirements. An owner or operator of a new source that is subject to special compliance requirements as specified in Sec. 63.6(b)(3) and Sec. 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) Notification of performance test. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under Sec. 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) Notification of opacity and visible emission observations. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in Sec. 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under Sec. 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the

opacity or visible emission observations are scheduled to take place.

(g) Additional notification requirements for sources with continuous monitoring systems. The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under Sec. 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under Sec. 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under Sec. 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by Sec. 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by Sec. 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by Sec. 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) Notification of compliance status.

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status

is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list--

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) An analysis demonstrating whether the affected source is a major source or an area source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification shall be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in a relevant standard, in which case the letter shall be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in Sec. 63.5(d) in place of the actual emissions data or control efficiencies

required in paragraphs (d)(1)(ii)(H) and (d)(2) of Sec. 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) Adjustment to time periods or postmark deadlines for submittal and review of required communications.

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) Change in information already provided. Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999]

Sec. 63.10 Recordkeeping and reporting requirements.

(a) Applicability and general information.

(1) The requirements of this section apply to owners or operators of affected sources who are subject to the provisions of this part, unless specified otherwise in a relevant standard.

(2) For affected sources that have been granted an extension of compliance under **subpart** D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce

recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in Sec. 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in Sec. 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State

permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in Sec. 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in Sec. 63.9(i).

(b) General recordkeeping requirements.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of--

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the air pollution control equipment;

(iii) All maintenance performed on the air pollution control equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see Sec. 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS sub hourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of sub hourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS sub hourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all sub hourly measurements for the most recent reporting period. The sub hourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under Sec. 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under Sec. 63.9.

(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under this part, the owner or operator shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If

relevant, the analysis shall be performed in accordance with requirements established in subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

(c) Additional recordkeeping requirements for sources with continuous monitoring systems. In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of--

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)-(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in Sec. 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under Sec. 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in Sec. 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) General reporting requirements.

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) Reporting results of performance tests. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under Sec. 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under Sec. 63.9(h).

(3) Reporting results of opacity or visible emission observations. The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under Sec. 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under Sec. 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) Progress reports. The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under Sec. 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see Sec. 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or

postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the

name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in Sec. 63.9(i).

(e) Additional reporting requirements for sources with continuous monitoring systems—

(1) General. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) Reporting results of continuous monitoring system performance evaluations.

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under Sec. 63.8(e), simultaneously with the results of the performance test required under Sec. 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under Sec. 63.7 and described in Sec. 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under Sec. 63.8(e). The copies shall be furnished at least 15 calendar days

before the performance test required under Sec. 63.7 is conducted.

(3) Excess emissions and continuous monitoring system performance report and summary report.

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when--

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(ii) Request to reduce frequency of excess emissions and continuous monitoring system performance reports. Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring

requirements specified in this **subpart** and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the

noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) Content and submittal dates for excess emissions and monitoring system performance reports. All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in Sec. 63.8(c)(7) and Sec. 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) Summary report. As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report--Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are

due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) Reporting continuous opacity monitoring system data produced during a performance test. The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under Sec. 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) Waiver of recordkeeping or reporting requirements.

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under Sec. 63.6(i), any required compliance progress report or compliance status report required under this part (such as under Sec. 63.6(i) and Sec. 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she--

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999]

Sec. 63.11 Control device requirements.

(a) Applicability. This section contains requirements for control devices used to comply with provisions in relevant standards. These requirements apply only to affected sources covered by relevant standards referring directly or indirectly to this section.

(b) Flares.

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be

monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max}, as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in Sec. 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value

of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C.

K=Constant=

$$1.740 \times 10^{-7} \left(\frac{1}{\text{ppmv}}\right)\left(\frac{\text{g - mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20°C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in Sec. 63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in Sec. 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined

by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$$\mathrm{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$$V_{max} = 8.71 = 0.708(H_T)$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708= Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000]

Sec. 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from--

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in **subpart** D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) **Subpart** E of this part establishes procedures consistent with section 112(l) for the approval of

State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. **Subpart** E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

Sec. 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air, Pesticides and Toxics Division, J.F.K. Federal Building, Boston, MA 02203-2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air, Radiation and Toxics Division, 841 Chestnut Street, Philadelphia, PA 19107.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics, Management Division, 345 Courtland Street, N.E., Atlanta, GA 30365.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Toxics Division, 726 Minnesota Avenue, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, CO 80202-2405.

EPA Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 66061, Dec. 1, 1998]

Sec. 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the

corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for Sec. 63.782.

(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.2.1 and 7.4.2.

(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for Sec. 63.788, Appendix A.

(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for Sec. 63.11(b)(6).

(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Sec. 63.788, Appendix A.

(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for Sec. 63.11(b)(6).

(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for Sec. 63.111 of **Subpart** G.

(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for Sec. 63.786(b).

(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for Sec. 63.365(e)(1) of **Subpart** O.

(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Sec. 63.788, Appendix A.

(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for Sec. 63.782.

(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Sec. 63.788, Appendix A.

(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for Sec. 63.782.

(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for Sec. 63.782.

(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for Sec. 63.11(b)(6).

(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for Sec. 63.786(b).

(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for Secs. 63.750(b)(2) and 63.786(b)(5).

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989,

IBR approved for Sec. 63.111 of **subpart** G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for Sec. 63.150(g)(3)(i)(C) of **subpart** G of this part.

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for Sec. 63.1251 of **subpart** GGG of this part.

(d) State and Local Requirements. The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.

(1) California Regulatory Requirements Applicable to the Air Toxics Program, January 5, 1999, IBR approved for Sec. 63.99(a)(5)(ii) of **subpart** E of this part.

(2) Revisions to Puget Sound Clean Air Regulation III, section 3.03, Perchloroethylene Dry Cleaners adopted on November 9, 1995, IBR approved for section 63.99 (a)(47)(ii) of **subpart** E of this part.

(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for Sec. 63.1303(e)(3).

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at http://www.ncasi.org: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for Sec. 63.457(c)(3)(ii) of **subpart** S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200

Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for Sec. 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for Sec. 63.606(c)(3)(ii) and Sec. 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus--P_2O_5 or $Ca_3(PO_4)_2$, Method A-Volumetric Method, IBR approved for Sec. 63.606(c)(3)(ii) and Sec. 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B--Gravimetric Quimociac Method, IBR approved for Sec. 63.606(c)(3)(ii) and Sec. 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method C--Spectrophotometric Method, IBR approved for Sec. 63.606(c)(3)(ii) and Sec. 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Super phosphate, Triple Super phosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A--Volumetric Method, IBR approved for Sec. 63.606(c)(3)(ii), Sec. 63.626(c)(3)(ii), and Sec. 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Super phosphate, Triple Super phosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B--Gravimetric Quimociac Method, IBR approved for Sec. 63.606(c)(3)(ii), Sec. 63.626(c)(3)(ii), and Sec. 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Super phosphate, Triple Super phosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C--Spectrophotometric Method, IBR approved for Sec. 63.606(c)(3)(ii), Sec. 63.626(c)(3)(ii), and Sec. 63.626(d)(3)(v).

[59 FR 12430, Mar. 16, 1994, as amended at 59 FR 19453, Apr. 22, 1994; 63 FR 50326, Sept. 21, 1998; 63 FR 53996, Oct. 7, 1998; 64 FR 4300, Jan. 28, 1999; 64 FR 17562, Apr. 12, 1999; 64 FR 31375, June 10, 1999; 65 FR 62215, Oct. 17, 2000; 66 FR 14324, Mar. 12, 2001]

Effective Date Note: At 66 FR 30822, June 8, 2001, Sec. 63.14 was amended by adding paragraph (d)(3) effective Aug. 8, 2001. For the convenience of the user, the added text appears as follows:

Sec. 63.14 Incorporation by Reference.

* * * * *

(d) * * *

(3) (i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources

and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.

(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for Sec. 63.99(a)(8)(i) of **subpart** E of this part.

* * * * *

Sec. 63.15 Availability of information and confidentiality.

(a) Availability of information.

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) Confidentiality.

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an

application for a title V permit may be entitled to protection from disclosure.

40 CFR 63 Subpart GGGG--National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production

Source: 66 FR 19011, Apr. 12, 2001, unless otherwise noted.

What This Subpart Covers

Sec. 63.2830 What is the purpose of this subpart**?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for emissions during vegetable oil production. This subpart limits hazardous air pollutant (HAP) emissions from specified vegetable oil production processes. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards.

Sec. 63.2831 Where can I find definitions of key words used in this subpart?

You can find definitions of key words used in this subpart in Sec. 63.2872.

Sec. 63.2832 Am I subject to this subpart?

(a) You are an affected source subject to this subpart if you meet all of the criteria listed in paragraphs (a)(1) and (2) of this section:

(1) You own or operate a vegetable oil production process that is a major source of HAP emissions or is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions.

(i) A vegetable oil production process is defined in Sec. 63.2872. In general, it is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds listed in Table 1 to Sec. 63.2840 through direct contact with an organic solvent, such as a hexane isomer blend.

(ii) A major source of HAP emissions is a plant site that emits or has the potential to emit

any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

(2) Your vegetable oil production process processes any combination of eight types of oilseeds listed in paragraphs (a)(2)(i) through (viii) of this section:

(i) Corn germ;

(ii) Cottonseed;

(iii) Flax;

(iv) Peanut;

(v) Rapeseed (for example, canola);

(vi) Safflower;

(vii) Soybean; and

(viii) Sunflower.

(b) You are not subject to this subpart if your vegetable oil production process meets any of the criteria listed in paragraphs (b)(1) through (4) of this section:

(1) It uses only mechanical extraction techniques that use no organic solvent to remove oil from a listed oilseed.

(2) It uses only batch solvent extraction and batch desolventizing equipment.

(3) It processes only agricultural products that are not listed oilseeds as defined in Sec. 63.2872.

(4) It functions only as a research and development facility and is not a major source.

(c) As listed in Sec. 63.1(c)(5) of the General Provisions, if your HAP emissions increase such that you become a major source, then you are subject to all of the requirements of this subpart.

Sec. 63.2833 Is my source categorized as existing or new?

(a) This subpart applies to each existing and new affected source. You must categorize your vegetable oil production process as either an existing or a new source in accordance with the criteria in Table 1 of this section, as follows:

TABLE 1 TO § 63.2833.—CATEGORIZING YOUR SOURCE AS EXISTING OR NEW

If your affected source	And if	Then your affected source
(1) was constructed or began construction before May 26, 2000	reconstruction has not occurred	is an existing source
(2) began reconstruction, as defined in § 63.2, on or after May 26, 2000.	(i) reconstruction was part of a scheduled plan to comply with the existing source requirements of this subpart; and.	
	(ii) reconstruction was completed no later than 3 years after the effective date of this subpart.	remains an existing source.
(3) began a significant modification, as defined in § 63. 2872, at any time on an existing source.	the modification does not constitute re-construction.	remains an existing source.
(4) began a significant modification, as defined in § 63. 2872, at any time on a new source.	the modification does not constitute re-construction	remains a new source
(5) began reconstruction on or after May 26, 2000.	reconstruction was completed later than 3 years after the effective date of this subpart.	is a new source.
(6) began construction on or after May 26, 2000.		is a new source.

(b) Reconstruction of a source. Any affected source is reconstructed if components are replaced so that the criteria in the definition of reconstruction in Sec. 63.2 are satisfied. In general, a vegetable oil production process is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of this subpart. The effect of reconstruction on the categorization of your existing and new affected source is described in paragraphs (b)(1) and (2) of this section:

(1) After reconstruction of an existing source, the affected source is recategorized as a new source and becomes subject to the new source requirements of this subpart.

(2) After reconstruction of a new source, the affected source remains categorized as a new source and remains subject to the new source requirements of this subpart.

(c) Significant modification of a source. A significant modification to an affected source is a term specific to this subpart and is defined in Sec. 63.2872.

(1) In general, a significant modification to your source consists of adding new equipment or the modification of existing equipment within the affected source that significantly affects solvent losses from the affected source. Examples include adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers. All other significant modifications must meet the criteria listed in paragraphs (c)(1)(i) and (ii) of this section:

(i) The fixed capital cost of the modification represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process.

(ii) It does not constitute reconstruction as defined in Sec. 63.2.

(2) A significant modification has no effect on the categorization of your source as existing and new. An existing source remains categorized as an existing

source and subject to the existing source requirements of this subpart. A new source remains categorized as a new source and subject to the new source requirements of this subpart.

(d) Changes in the type of oilseed processed by your affected source does not affect the categorization of your source as new or existing. Recategorizing an affected source from existing to new occurs only when you add or modify process equipment within the source which meets the definition of reconstruction.

Sec. 63.2834 When do I have to comply with the standards in this subpart?

You must comply with this subpart in accordance with one of the schedules in Table 1 of this section, as follows:

TABLE 1 OF § 63.2834.—COMPLIANCE DATES FOR EXISTING AND NEW SOURCES

If your affected source is categorized as...	And if...	Then your compliance date is...
(a) an existing source.....	.....	3 years after the effective date of this subpart.
(b) a new source	you startup your affected source before the effective date of this subpart	the effective date of this subpart
(c) a new source	you startup your affected source on or after the effective date of this subpart.	your startup date.

Standards

Sec. 63.2840 What emission requirements must I meet?

(a) (1) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1 of this section. An operating month, as defined in Sec. 63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire

calendar month in which the source operated under an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2) or a malfunction period subject to Sec. 63.2850(e)(2). Equation 1 of this section follows:

$$\text{Compliance Ratio} = \frac{\text{Actual HAP Loss}}{\text{Allowable HAP Loss}} \qquad \text{(Eq. 1)}$$

(2) Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this section. Equation 2 of this section follows:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^{n} \left((\text{Oilseed})_i * (\text{SLF})_i \right)} \qquad \text{(Eq. 2)}$$

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in Sec. 63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in Sec. 63.2853.

Oilseed = Tons of each oilseed type "I" processed during the previous 12 operating months, as shown in Sec. 63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of this section, as follows:

TABLE 1 OF § 63.2840.—OILSEED SOLVENT LOSS FACTORS FOR DETERMINING ALLOWABLE HAP LOSS

		Oilseed solvent loss factor (gal/ton)	
Type of oilseed process	A source that	Existing sources	New sources
(i) Corn Germ, Wet Milling	processes corn germ that has been separated from other corn components using a "wet" process of centrifuging a slurry steeped in a dilute sulfurous acid solution.	0.4	0.3
(ii) Corn Germ, Dry Milling	processes corn germ that has been separated from the other corn components using a "dry" process of mechanical chafing and air sifting.	0.7	0.7
(iii) Cottonseed, Large	processes 120,000 tons or more of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.5	0.4
(iv) Cottonseed, Small	processes less than 120,000 tons of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.7	0.4
(v) Flax	processes flax	0.6	0.6
(vi) Peanuts	processes peanuts	1.2	0.7
(vii) Rapeseed	processes rapeseed	0.7	0.3
(viii) Safflower	processes safflower	0.7	0.7
(ix) Soybean, Conventional	uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products.	0.2	0.2
(x) Soybean, Specialty	uses a special style desolventizer to produce soybean meal products for human and animal consumption	1.7	1.5

		Oilseed solvent loss factor (gal/ton)	
Type of oilseed process	A source that	Existing sources	New sources
(xi) Soybean, Combination Plant with Low Specialty Production	processes soybeans in both specialty and conventional desolventizers and the quantity of soy-beans processed in specialty desolventizers during normal operating periods is less than 3.3 percent of total soybeans processed during all normal operating periods in a 12 operating month period. The corresponding solvent loss factor is an overall value and applies to the total quantity of soybeans processed	0.25	0.25
(xii) Sunflower	processes sunflower	0.4	0.3

(b) When your source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of this section. When calculating your compliance ratio, consider the conditions and exclusions in paragraphs (b)(1) through (6) of this section:

(1) If your source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to Sec. 63.2850, then you must categorize the month as an operating month, as defined in Sec. 63.2872.

(2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.

(3) If your source shuts down and processes no listed oilseed for an entire calendar month, then you must categorize the month as a nonoperating month, as defined in Sec. 63.2872. Exclude any nonoperating months from the compliance ratio determination.

(4) If your source is subject to an initial startup period as defined in Sec. 63.2872, exclude from the

compliance ratio determination any solvent and oilseed information recorded for the initial startup period.

(5) If your source is subject to a malfunction period as defined in Sec. 63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.

(6) For sources processing cottonseed or specialty soybean, the solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period.

(c) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission requirements for the previous operating month.

(d) To determine the compliance ratio in Equation 2 of this section, you must select the appropriate oilseed solvent loss factor from Table 1 of this section. First, determine whether your source is new or existing using Table 1 of Sec. 63.2833. Then, under the appropriate existing or new source column, select the oilseed solvent loss factor that corresponds to each type oilseed or process operation for each operating month.

Compliance Requirements

Sec. 63.2850 How do I comply with the hazardous air pollutant emission standards?

(a) General requirements. The requirements in paragraphs (a)(1)(i) through (iv) of this section apply to all affected sources:

(1) Submit the necessary notifications in accordance with Sec. 63.2860, which include:

(i) Initial notifications for existing sources.

(ii) Initial notifications for new and reconstructed sources.

(iii) Initial notifications for significant modifications to existing or new sources.

(iv) Notification of compliance status.

(2) Develop and implement a plan for demonstrating compliance in accordance with Sec. 63.2851.

(3) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in Sec. 63.2852.

(4) Maintain all the necessary records you have used to demonstrate compliance with this subpart in accordance with Sec. 63.2862.

(5) Submit the reports in paragraphs (a)(5)(i) through (iii) of this section:

(i) Annual compliance certifications in accordance with Sec. 63.2861(a).

(ii) Periodic SSM reports in accordance with Sec. 63.2861(c).

(iii) Immediate SSM reports in accordance with Sec. 63.2861(d).

(6) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if you add a control device that destroys solvent.

(b) Existing sources under normal operation. You must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation in Table 2 of this section.

(c) New sources. Your new source, including a source that is categorized as new due to reconstruction, must meet the requirements associated with one of two compliance options. Within 15 days of the startup date, you must choose to comply with one of the options listed in paragraph (c)(1) or (2) of this section:

(1) Normal operation. Upon startup of your new source, you must meet all of the requirements listed in Sec. 63.2850(a) and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 of this section.

(2) Initial startup period. For up to 6 calendar months after the startup date of your new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 of this section. After a maximum of 6 calendar months, your new source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(d) Existing or new sources that have been significantly modified. Your existing or new source that has been significantly modified must meet the requirements associated with one of two compliance options. Within 15 days of the modified source startup date, you must choose to comply with one of the options listed in paragraph (d)(1) or (2) of this section:

(1) Normal operation. Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in Table 2 of this section.

(2) Initial startup period. For up to 3 calendar months after the startup date of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in Table 2 of this section. After a maximum of 3 calendar months, your new or existing source must meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(e) Existing or new sources experiencing a malfunction. A malfunction is defined in Sec. 63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If your existing or new source experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a

malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then you must meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in paragraphs (e)(1) through (2) of this section:

(1) Normal operation. Your source must meet all of the requirements listed in paragraph (a) of this section and one of the options listed in paragraphs (e)(1)(i) through (iii) of this section:

(i) Existing source normal operation requirements in paragraph (b) of this section.

(ii) New source normal operation requirements in paragraph (c)(1) of this section.

(iii) Normal operation requirements for sources that have been significantly modified in paragraph (d)(1) of this section.

(2) Malfunction period. Throughout the malfunction period, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation. Table 1 of this section follows:

TABLE 1 OF § 63.2850 — REQUIREMENTS FOR COMPLIANCE WITH HAP EMISSION STANDARDS

Are you required to. . .	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(a) Operate and maintain your source in accordance with your SSM plan as described in § 63.2852?	No, your source is not subject to the SSM plan, but rather the HAP emission limits of this standard.	Yes, throughout the entire initial startup period.	Yes, throughout the entire malfunction period.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in § 63.2853.	Yes, as described in § 63.2862(e).	Yes, as described in § 63.2862(e)
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction sol-vent in shipment received?	Yes	Yes	Yes
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in § 63.2855.	No	No

Are you required to. . .	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in § 63.2854 by the end of the following calendar month?	Yes	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month.	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in § 63.2840 by the end of the following calendar month?	Yes	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data re-corded for an initial startup period.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data re-corded for a malfunction period.

Are you required to. . .	For periods of normal operation?	For initial startup periods subject to § 63.2850(c)(2) or (d)(2)?	For malfunction periods subject to § 63.2850(e)(2)?
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§ 63.2860(d) and 63.2861(a).	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the initial startup period.	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the malfunction period.
h) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in § 63.2861(b)?	Yes	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data re-corded for a malfunction period.
(i) Submit a Periodic SSM Report as described in § 63 2861(c)?	No, a SSM activity is not categorized as normal operation.	Yes	Yes
(j) Submit an Immediate SSM Report as described in § 63.2861(d)?	No, a SSM activity is not categorized as normal operation	Yes, only if your source does not follow the SSM plan	Yes, only if your source does not follow the SSM plan

TABLE 2 OF § 63.2850 — SCHEDULES FOR DEMONSTRATING COMPLIANCE UNDER VARIOUS SOURCE OPERATING MODES

If your source is	and is operating under	then your record-keeping schedule	You must determine your first compliance ratio by the end of the calendar month following	Base your first compliance ratio on information recorded
(a) Existing	Normal operation	Begins on the compliance date.	The first 12 operating months after the compliance date.	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation	Begins on the startup date of your new source.	The first 12 operating months after the startup date of the new source.	During the first 12 operating months after the startup date of the new source.
	(2) An initial startup period.	Begins on the startup date of your new source.	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months.	During the first 12 operating months after the initial startup period, which can last for up to 6 months.

If your source is	and is operating under	then your record-keeping schedule	You must determine your first compliance ratio by the end of the calendar month following	Base your first compliance ratio on information recorded
(c) Existing or new that has been significantly modified	(1) Normal operation	Resumes on the start-up date of the modified source.	The first operating month after the start-up date of the modified source.	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period.	Resumes on the start-up date of the modified source.	The first operating month after termination of the initial startup period, which can last up to 3 months.	During the 11 operating months before the significant modification and the first operating month after the initial startup period.

Sec. 63.2851 What is a plan for demonstrating compliance?

(a) You must develop and implement a written plan for demonstrating compliance that provides the detailed procedures you will follow to monitor and record data necessary for demonstrating compliance with this subpart. Procedures followed for quantifying solvent loss from the source and amount of oilseed processed vary from source to source because of site-specific factors such as equipment design characteristics and operating conditions. Typical

procedures include one or more accurate measurement methods such as weigh scales, volumetric displacement, and material mass balances. Because the industry does not have a uniform set of procedures, you must develop and implement your own site-specific plan for demonstrating compliance before the compliance date for your source. You must also incorporate the plan for demonstrating compliance by reference in the source's title V permit and keep the plan on-site and readily available as long as the source is operational. If you make any changes to the plan for demonstrating compliance, then you must keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The plan for demonstrating compliance must include the items in paragraphs (a)(1) through (7) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) A detailed description of all methods of measurement your source will use to determine your solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.

(4) When each measurement will be made.

(5) Examples of each calculation you will use to determine your compliance status. Include examples of how you will convert data measured with one parameter to other terms for use in compliance determination.

(6) Example logs of how data will be recorded.

(7) A plan to ensure that the data continue to meet compliance demonstration needs.

(b) The responsible agency of these NESHAP may require you to revise your plan for demonstrating compliance. The responsible agency may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed.

Sec. 63.2852 What is a startup, shutdown, and malfunction plan?

You must develop a written SSM plan in accordance with Sec. 63.6(e)(3) and implement the plan, when applicable. You must complete the SSM plan before the compliance date for your source. You must also incorporate the SSM plan by reference in your source's title V permit and keep the SSM plan on-site and readily available as long as the source is operational. The SSM plan provides detailed procedures for operating and maintaining your source to minimize emissions during a qualifying SSM event for which the source chooses the Sec. 63.2850(e)(2) malfunction period, or the Sec. 63.2850(c)(2) or (d)(2) initial startup period. The SSM plan must specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions. Some or all of the procedures may come from plans you developed for other purposes such as a Standard Operating Procedure manual or an Occupational Safety and Health Administration Process Safety Management plan. To qualify as a SSM plan, other such plans must meet all the applicable requirements of these NESHAP.

Sec. 63.2853 How do I determine the actual solvent loss?

By the end of each calendar month following an operating month, you must determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If you have determined solvent losses for 12 or more operating months, then you must also determine the 12 operating months rolling sum of actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the "actual solvent loss," which is used to calculate your compliance ratio as described in Sec. 63.2840.

(a) To determine the actual solvent loss from your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (7) of this section:

(1) The dates that define each operating status period during a calendar month. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If the source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month. If, prior to the effective

date of this rule, your source determines the solvent loss on an accounting month, as defined in Sec. 63.2872, rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP.

(2) Source operating status. You must categorize the operating status of your source for each recorded time interval in accordance with criteria in Table 1 of this section, as follows:

TABLE 1 OF § 63.2853.—CATEGORIZING YOUR SOURCE OPERATING STATUS

If during a recorded time interval	then your source operating status is
(i) Your source processes any amount of listed oilseed and source is not operating under an initial startup operating period or a malfunction period subject to § 63.2850(c)(2), (d)(2), or (e)(2).	A normal operating period.
(ii) Your source processes no agricultural product and your source is not operating under an initial startup period or mal-function period subject to § 63.2850(c)(2), (d)(2), or (e)(2).	A non-operating period.
(iii) You choose to operate your source under an initial startup period subject to § 63.2850(c)(2) or (d)(2).	An initial startup period.
(iv) You choose to operate your source under a malfunction period subject to § 63.2850(e)(2).	A malfunction period.
(v) Your source processes agricultural products not defined as listed oilseed.	An exempt period.

(3) Measuring the beginning and ending solvent inventory. You are required to measure and record the solvent

inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in Sec. 63.2851, to determine the extraction solvent inventory, and maintain readily available records of the actual solvent loss inventory, as described in Sec. 63.2862(c)(1). In general, you must measure and record the solvent inventory only when the source is actively processing any type of agricultural product. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory.

(4) Gallons of extraction solvent received. Record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if your process refines additional vegetable oil from off-site sources, recovers solvent from the off-site oil, and adds it to the on-site solvent inventory, then you must determine the quantity of recovered solvent and include it in the gallons of extraction solvent received.

(5) Solvent inventory adjustments. In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the "actual solvent loss" for use in determining compliance ratios. In such cases, you may adjust the total solvent loss for each normal operating period as long as you provide a reasonable justification for the adjustment. Situations that may require adjustments of the total solvent loss include, but are not limited to, situations in paragraphs (a)(5)(i) and (ii) of this section:

(i) Solvent destroyed in a control device. You may use a control device to reduce solvent emissions to meet the emission standard. The use of a control device does not alter the emission limit for the source. If you use a control device that reduces solvent emissions through destruction of the solvent instead of recovery, then determine the gallons of

solvent that enter the control device and are destroyed there during each normal operating period. All solvent destroyed in a control device during a normal operating period can be subtracted from the total solvent loss. Examples of destructive emission control devices include catalytic incinerators, boilers, or flares. Identify and describe, in your plan for demonstrating compliance, each type of reasonable and sound measurement method that you use to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. You may use design evaluations to document the gallons of solvent destroyed or removed by the control device instead of performance testing under Sec. 63.7. The design evaluations must be based on the procedures and options described in Sec. 63.985(b)(1)(i)(A) through (C) or Sec. 63.11, as appropriate. All data, assumptions, and procedures used in such evaluations must be documented and available for inspection. If you use performance testing to determine solvent flow rate to the control device or destruction efficiency of the device, follow the procedures as outlined in Sec. 63.997(e)(1) and (2). Instead of periodic performance testing to demonstrate continued good operation of the control device, you may develop a monitoring plan, following the procedures outlined in Sec. 63.988(c) and using operational parametric measurement devices such as fan parameters, percent measurements of lower explosive limits, and combustion temperature.

(ii) Changes in solvent working capacity. In records you keep on-site, document any process modifications resulting in changes to the solvent working capacity in your vegetable oil production process. Solvent working capacity is defined in Sec. 63.2872. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and oil/solvent distillation system. If the change occurs during a normal

operating period, you must determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory.

(b) Use Equation 1 of this section to determine the actual solvent loss occurring from your affected source for all normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Actual Solvent (gal)} = \sum_{i=1}^{n} \left(SOLV_B - SOLV_E + SOLV_R \pm SOLV_A\right)_i \qquad \text{(Eq. 1)}$$

Where:

$SOLV_B$ = Gallons of solvent in the inventory at the beginning of normal operating period "i" as determined in paragraph (a)(3) of this section.

$SOLV_E$ = Gallons of solvent in the inventory at the end of normal operating period "i" as determined in paragraph (a)(3) of this section.

$SOLV_R$ = Gallons of solvent received between the beginning and ending inventory dates of normal operating period "i" as determined in paragraph (a)(4) of this section.

$SOLV_A$ = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period "i" as determined in paragraph (a)(5) of this section.

n = Number of normal operating periods in a calendar month.

(c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of Sec. 63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in paragraphs (c)(1) through (4) of

this section. If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.

(1) Nonoperating periods as described in paragraph (a)(2)(ii) of this section.

(2) Initial startup periods as described in Sec. 63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in Sec. 63.2850(e)(2).

(4) Exempt operation periods as described in paragraph (a)(2)(v) of this section.

Sec. 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?

(a) This section describes the information and procedures you must use to determine the weighted average volume fraction of HAP in extraction solvent received for use in your vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If you have determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of Sec. 63.2840 to determine the compliance ratio.

(b) To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must comply with paragraphs (b)(1) through (3) of this section:

(1) Record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. You may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of

determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of this section. Record the result by the end of each calendar month following an operating month. Equation 1 of this section follows:

$$\text{Monthly Weighted Average HAP Content of Extraction Solvent (volume fraction)} = \frac{\sum_{i=1}^{n}\left(\text{Received}_i * \text{Content}_i\right)}{\text{Total Received}} \qquad \text{(Eq. 1)}$$

Where:

Received_i = Gallons of extraction solvent received in delivery "i."

Content_i = The volume fraction of HAP in extraction solvent delivery "i."

Total Received = Total gallons of extraction solvent received since the end of the previous operating month.

n = Number of extraction solvent deliveries since the end of the previous operating month.

(3) Determine the volume fraction of HAP in your extraction solvent as a 12 operating months weighted average. When your source has processed oilseed for 12 operating months, sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of this section. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of Sec. 63.2840 to determine the compliance ratio. Equation 2 of this section follows:

$$\begin{array}{c}\text{12 - Month Weighted}\\ \text{Average of HAP Content}\\ \text{in Solvent Received}\\ \text{(volume fraction)}\end{array} = \frac{\sum_{i=1}^{12}\left(\text{Received}_i * \text{Content}_i\right)}{\text{Total Received}} \qquad \text{(Eq. 2)}$$

Where:

Received_i = Gallons of extraction solvent received in operating month "i" as determined in accordance with Sec. 63.2853(a)(4).

Content_i = Average volume fraction of HAP in extraction solvent received in operating month "i" as determined in accordance with paragraph (b)(1) of this section.

Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

Sec. 63.2855 How do I determine the quantity of oilseed processed?

All oilseed measurements must be determined on an as received basis, as defined in Sec. 63.2872. The as received basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and

processing. By the end of each calendar month following an operating month, you must determine the tons as received of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If you have determined the tons of oilseed processed for 12 or more operating months, then you must also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in Sec. 63.2840.

(a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (5) of this section:

(1) The dates that define each operating status period. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory.

(2) Source operating status. You must categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed must be consistent with the operating status recorded on the solvent inventory logs as described in Sec. 63.2853(a)(2).

(3) Measuring the beginning and ending inventory for each oilseed. You are required to measure and record the oilseed inventory on the beginning and ending dates

of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in Sec. 63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by Sec. 63.2862(c)(3).

(4) Tons of each oilseed received. Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage.

(5) Oilseed inventory adjustments. In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in paragraphs (a)(5)(i) through (v) of this section:

(i) Oilseed that mold or otherwise become unsuitable for processing.

(ii) Oilseed you sell before it enters the processing operation.

(iii) Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster.

(iv) Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing.

(v) Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic

measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment.

(b) Use Equation 1 of this section to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\text{Monthly Quantity of Each Oilseed Processed (tons)} = \sum_{n=1}^{n} \left(SEED_B - SEED_E + SEED_R \pm SEED_A\right) \quad \text{(Eq. 1)}$$

Where:

$SEED_B$ = Tons of oilseed in the inventory at the beginning of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_E$ = Tons of oilseed in the inventory at the end of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_R$ = Tons of oilseed received during normal operating period "i" as determined in accordance with paragraph (a)(4) of this section.

$SEED_A$ = Tons of oilseed added or removed from the oilseed inventory during normal operating period "i" as determined in accordance with paragraph (a)(5) of this section.

n = Number of normal operating periods in the calendar month during which this type oilseed was processed.

(c) The quantity of each oilseed processed is the total tons of each type of listed oilseed processed during normal operating periods in the previous 12 operating months.

You determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. You must record the 12 operating months quantity of each type of oilseed processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of each type of oilseed processed to determine the compliance ratio as described in Sec. 63.2840. The quantity of oilseed processed does not include oilseed processed during the operating status periods in paragraphs (c)(1) through (4) of this section:

(1) Nonoperating periods as described in Sec. 63.2853 (a)(2)(ii).

(2) Initial startup periods as described in Sec. 63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in Sec. 63.2850(e)(2).

(4) Exempt operation periods as described in Sec. 63.2853 (a)(2)(v).

(5) If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.

Notifications, Reports, and Records

Sec. 63.2860 What notifications must I submit and when?

You must submit the one-time notifications listed in paragraphs (a) through (d) of this section to the responsible agency:

(a) Initial notification for existing sources. For an existing source, submit an initial notification to the agency responsible for these NESHAP no later than 120 days after the effective date of this subpart. In the notification, include the items in paragraphs (a)(1) through (5) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Identification of the relevant standard, such as the vegetable oil production NESHAP, and compliance date.

(4) A brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(5) A statement designating the source as a major source of HAP or a demonstration that the source meets the definition of an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(b) Initial notifications for new and reconstructed sources. New or reconstructed sources must submit a series of notifications before, during, and after source construction per the schedule listed in Sec. 63.9. The information requirements for the notifications are the same as those listed in the General Provisions with the exceptions listed in paragraphs (b)(1) and (2) of this section:

(1) The application for approval of construction does not require the specific HAP emission data required in Sec. 63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include, instead, a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(2) The notification of actual startup date must also include whether you have elected to operate under an initial startup period subject to Sec. 63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.

(c) Significant modification notifications. Any existing or new source that plans to undergo a significant modification as defined in Sec. 63.2872 must submit two reports as described in paragraphs (c)(1) and (2) of this section:

(1) Initial notification. You must submit an initial notification to the agency responsible for these NESHAP 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the items in paragraphs (c)(1)(i) and (ii) of this section:

(i) The expected startup date of the modified source.

(ii) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers, then you must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

(2) Notification of actual startup. You must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the items in paragraphs (c)(2)(i) through (iv) of this section:

(i) The initial startup date of the modified source.

(ii) An indication whether you have elected to operate under an initial startup period subject to Sec. 63.2850(d)(2).

(iii) The anticipated duration of any initial startup period.

(iv) A justification for the anticipated duration of any initial startup period.

(d) Notification of compliance status. As an existing, new, or reconstructed source, you must submit a notification of compliance status report to the responsible agency no later than 60 days after determining your initial 12 operating months compliance ratio. If you are an existing source, you generally must submit this notification no later than 50 calendar months after the effective date of these NESHAP (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). If you are a new or reconstructed source, the notification of compliance status is generally due no later than 20 calendar months after initial startup (6 calendar months for the initial startup period, 12

operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the items in paragraphs (d)(1) through (6) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the previous 12 operating months.

(4) Each HAP identified under Sec. 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the items in paragraphs (d)(6)(i) through (iii) of this section:

(i) The plan for demonstrating compliance (as described in Sec. 63.2851) and SSM plan (as described in Sec. 63.2852) are complete and available on-site for inspection.

(ii) You are following the procedures described in the plan for demonstrating compliance.

(iii) The compliance ratio is less than or equal to 1.00.

Sec. 63.2861 What reports must I submit and when?

After the initial notifications, you must submit the reports in paragraphs (a) through (d) of this section to the agency responsible for these NESHAP at the appropriate time intervals:

(a) Annual compliance certifications. The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in paragraphs (a)(1) through (6) of this section in the annual certification:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 calendar months period covered by the report.

(4) Each HAP identified under Sec. 63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the items in paragraphs (a)(6)(i) through (ii) of this section:

(i) You are following the procedures described in the plan for demonstrating compliance.

(ii) The compliance ratio is less than or equal to 1.00.

(b) Deviation notification report. Submit a deviation report for each compliance determination you make in which the compliance ratio exceeds 1.00 as determined under Sec.

63.2840(c). Submit the deviation report by the end of the month following the calendar month in which you determined the deviation. The deviation notification report must include the items in paragraphs (b)(1) through (4) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation.

(4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in Sec. 63.10(e)(3)(iii).

(c) Periodic startup, shutdown, and malfunction report. If you choose to operate your source under an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2) or a malfunction period subject to Sec. 63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.

(2) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.

(3) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.

(d) Immediate SSM reports. If you handle a SSM during an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2) or a malfunction period subject to Sec. 63.2850(e)(2) differently from procedures in the SSM plan,

then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.

(2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM.

(3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

Sec. 63.2862 What records must I keep?

(a) You must satisfy the recordkeeping requirements of this section by the compliance date for your source specified in Table 1 of Sec. 63.2834.

(b) Prepare a plan for demonstrating compliance (as described in Sec. 63.2851) and a SSM plan (as described in Sec. 63.2852). In these two plans, describe the procedures you will follow in obtaining and recording data, and determining compliance under normal operations or a SSM subject to the Sec. 63.2850(c)(2) or (d)(2) initial startup period or the Sec. 63.2850(e)(2) malfunction period. Complete both plans before the compliance date for your source and keep them on-site and readily available as long as the source is operational.

(c) If your source processes any listed oilseed, record the items in paragraphs (c)(1) through (5) of this section:

(1) For the solvent inventory, record the information in paragraphs (c)(1)(i) through (vii) of this section in accordance with your plan for demonstrating compliance:

(i) Dates that define each operating status period during a calendar month.

(ii) The operating status of your source such as normal operation, nonoperating, initial

startup period, malfunction period, or exempt operation for each recorded time interval.

(iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.

(iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month.

(v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The total solvent loss for each calendar month, regardless of the source operating status.

(vii) The actual solvent loss in gallons for each operating month.

(2) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in paragraphs (c)(2)(i) through (iii) of this section:

(i) The gallons of extraction solvent received in each delivery.

(ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent.

(iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with Sec. 63.2854(b)(2).

(3) For each type of listed oilseed processed, record the items in paragraphs (c)(3)(i) through (vi) of this section, in accordance with your plan for demonstrating compliance:

(i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.

(ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status.

(iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.

(iv) The tons of each type of listed oilseed received at the affected source each normal operating period.

(v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment.

(vi) The tons of each type of listed oilseed processed during each operating month.

(d) After your source has processed listed oilseed for 12 operating months, and you are not operating during an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2), record the items in paragraphs (d)(1) through (5) of this section by the end of the calendar month following each operating month:

(1) The 12 operating months rolling sum of the actual solvent loss in gallons as described in Sec. 63.2853(c).

(2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in Sec. 63.2854(b)(3).

(3) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in Sec. 63.2855(c).

(4) A determination of the compliance ratio. Using the values from Secs. 63.2853, 63.2854, 63.2855, and

Table 1 of Sec. 63.2840, calculate the compliance ratio using Equation 2 of Sec. 63.2840.

(5) A statement of whether the source is in compliance with all of the requirements of this subpart. This includes a determination of whether you have met all of the applicable requirements in Sec. 63.2850.

(e) For each SSM event subject to an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2), record the items in paragraphs (e)(1) through (3) of this section by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:

(1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.

(2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.

(3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

Sec. 63.2863 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for review in accordance with Sec. 63.10(b)(1).

(b) As specified in Sec. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with Sec. 3.10(b)(1). You can keep the records off-site for the remaining 3 years.

Other Requirements and Information

Sec. 63.2870 What parts of the General Provisions apply to me?

Table 1 of this section shows which parts of the General Provisions in Secs. 63.1 through 63.15 apply to you. Table 1 of Sec. 63.2870 follows:

TABLE 1 OF § 63.2870 — APPLICABILITY OF 40 CFR P ART 63, SUBPART A, TO 40 CFR, PART 63, SUBPART GGGG

General Provisions Citation	Subject of Citation	Brief Description of Requirement	Applies to Subpart	Explanation
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions; notifications.	Yes	
§63.2	Definitions	Definitions for part 63 standards	Yes	Except as specifically provided in this subpart.
§63.3	Units and abbreviations	Units and abbreviations for part 63 standards.	Yes	
§63.4	Prohibited activities and circumvention.	Prohibited activities; compliance date; circumvention; severability	Yes	
§63.5	Construction/ reconstruction	Applicability; applications; approvals.	Yes	Except for subsections of §63.5 as listed below.
§63.5(c)	[Reserved]			
§63.5(d)(1)(ii)(H)	Application for approval	Type and quantity of HAP, operating parameters.	No	All sources emit HAP. Subpart GGGG does not require control from specific emission points
§63.5(d)(1)(ii)(I)	[Reserved]			

General Provisions Citation	Subject of Citation	Brief Description of Requirement	Applies to Subpart	Explanation
§63.5(d)(1)(iii), (d)(2), (d)(3)(ii)		Application for approval	No	The requirements of the application for approval for new, reconstructed and significantly modified sources are described in § 63.2860(b) and (c) of subpart GGGG. General provision requirements for identification of HAP emission points or estimates of actual emissions are not required. Descriptions of control and methods, and the estimated and actual control efficiency of such do not apply. Requirements for describing control equipment and the estimated and actual control efficiency of such equipment apply only to control equipment to which the subpart GGGG requirements for quantifying.
§63.6	Applicability of General Provisions	Applicability	Yes	Except for subsections of §63.6 as listed below.
§63.6(b)(1)-(3)	Compliance dates, new and reconstructed sources		No	Section 63.2834 of subpart GGGG specifies the compliance dates for new and reconstructed sources
§63.6(b)(6)	[Reserved]			
§63.6(c)(3)-(4)	[Reserved]			

General Provisions Citation	Subject of Citation	Brief Description of Requirement	Applies to Subpart	Explanation
§63.6(d)	[Reserved]			
§63.6(e)	Operation and maintenance requirements.		Yes	Implement your SSM plan, as specified in §63.2851.
§63.6(f)-(g)	Compliance with nonopacity emission standards except during SSM.	Comply with emission standards at all times except during SSM.	No	Subpart GGGG does not have nonopacity requirements.
§ 63.6(h)	Opacity/ Visible emission (VE) standards.		No	Subpart GGGG has no opacity or VE standards.
§63.6(i)	Compliance extension	Procedures and criteria for responsible agency to grant compliance extension.	Yes	
§63.6(j)	Presidential compliance exemption	President may exempt source category from requirement to comply with subpart.	Yes	
§63.7	Performance testing requirements	Schedule, conditions, notifications and procedures.	Yes	Subpart GGGG requires performance testing only if the source applies additional control that destroys solvent. Section 63.2850(a)(6) requires sources to follow the performance testing guidelines of the General Provisions if a control is added.

General Provisions Citation	Subject of Citation	Brief Description of Requirement	Applies to Subpart	Explanation
§63.8	Monitoring requirements		No	Subpart GGGG does not require monitoring other than as specified therein.
§63.9	Notification requirements	Applicability and state delegation	Yes	Except for subsections of § 63.9 as listed below.
§63.9(b)(2)	Notification requirements	Initial notification requirements for existing sources.	No	Section 63.2860(a) of subpart GGGG specifies the requirements of the initial notification for existing sources.
§63.9(b)(3)-(5)	Notification requirements	Notification requirement for certain new/ reconstructed sources.	Yes	Except the information requirements differ as described in §63.2860(b) of subpart GGGG.
§63.9(e)	Notification of performance test	Notify responsible agency 60 days ahead.	Yes	Applies only if performance testing is performed.
§63.9(f)	Notification of VE/opacity observations.	Notify responsible agency 30 days ahead.	No	Subpart GGGG has no opacity or VE standards.
§63.9(g)	Additional notifications when using a continuous monitoring system (CMS).	Notification of performance evaluation; Notification using COMS data; notification that exceeded criterion for relative accuracy.	No	Subpart GGGG has no CMS requirements.
§63.9(h)	Notification of compliance status	Contents	No	Section 63.2860(d) of subpart GGGG specifies requirements for the notification of compliance status.

General Provisions Citation	Subject of Citation	Brief Description of Requirement	Applies to Subpart	Explanation
§63.10	Recordkeeping/ reporting	Schedule for reporting, record storage	Yes	Except for subsections of § 63.10 as listed below.
§63.10(b)(2)(i)	Recordkeeping	Record SSM event	Yes	Applicable to periods when sources must implement their SSM plan as specified in subpart GGGG.
§63.10(b)(2)(ii)-(iii)	Recordkeeping	Malfunction of air pollution equipment	No	Applies only if air pollution control equipment has been added to the process and is necessary for the source to meet the emission limit.
§63.10(b)(2)(vi)	Recordkeeping	CMS recordkeeping	No	Subpart GGGG has no CMS requirements.
§63.10(b)(2)(viii)-(ix)	Recordkeeping	Conditions of performance test	Yes	Applies only if performance tests are performed Subpart GGGG does not have any CMS opacity or VE observation requirements.
§63.10(b)(2)(x)-(xii)	Recordkeeping	CMS, performance testing, and opacity and VE observations record-keeping.	No	Subpart GGGG does not require CMS.
§63.10(c)	Recordkeeping	Additional CMS recordkeeping	No	Subpart GGGG does not require CMS.
§63.10(d)(2)	Reporting	Reporting performance test results	Yes	Applies only if performance testing is performed.
§63.10(d)(3)	Reporting	Reporting opacity or VE observations	No	Subpart GGGG has no opacity or VE standards.
§63.10(d)(4)	Reporting	Progress reports	Yes	Applies only if a condition of compliance extension exists.

Sec. 63.2871 Who implements and enforces this subpart**?**

(a) This subpart can be implemented by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, as well as the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows:

(1) Approval of alternative nonopacity emissions standards under Sec. 63.6(g).

(2) Approval of alternative opacity standards under Sec. 63.6(h)(9).

(3) Approval of major alternatives to test methods under Sec. 63.7(e)(2)(ii) and (f) and as defined in Sec. 63.90.

(4) Approval of major alternatives to monitoring under Sec. 63.8(f) and as defined in Sec. 63.90.

(5) Approval of major alternatives to recordkeeping and reporting under Sec. 63.10(f) and as defined in Sec. 63.90.

Sec. 63.2872 What definitions apply to this subpart?

Terms used in this subpart are defined in the sources listed:

(a) The Clean Air Act, section 112(a).

(b) In 40 CFR 63.2, the NESHAP General Provisions.

(c) In this section as follows:

Accounting month means a time interval defined by a business firm during which corporate economic and

financial factors are determined on a consistent and regular basis. An accounting month will consist of approximately 4 to 5 calendar weeks and each accounting month will be of approximate equal duration. An accounting month may not correspond exactly to a calendar month, but 12 accounting months will correspond exactly to a calendar year.

Actual solvent loss means the gallons of solvent lost from a source during 12 operating months as determined in accordance with Sec. 63.2853.

Agricultural product means any commercially grown plant or plant product.

Allowable HAP loss means the gallons of HAP that would have been lost from a source if the source was operating at the solvent loss factor for each listed oilseed type. The allowable HAP loss in gallons is determined by multiplying the tons of each oilseed type processed during the previous 12 operating months, as determined in accordance with Sec. 63.2855, by the corresponding oilseed solvent loss factor (gal/ton) listed in Table 1 of Sec. 63.2840, and by the dimensionless constant 0.64, and summing the result for all oilseed types processed.

Area source means any source that does not meet the major source definition.

As received is the basis upon which all oilseed measurements must be determined and refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing.

Batch operation means any process that operates in a manner where the addition of raw material and withdrawal of product do not occur simultaneously. Typically, raw material is added to a process, operational steps occur, and a product is removed from the process. More raw material is then added to the process and the cycle repeats.

Calendar month means 1 month as specified in a calendar.

Compliance date means the date on which monthly compliance recordkeeping begins. For existing sources, recordkeeping typically begins 3 years after the effective date of the subpart. For new and reconstructed sources, recordkeeping

typically begins upon initial startup, except as noted in Sec. 63.2834.

Compliance ratio means a ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of Sec. 63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the Sec. 63.2850(c)(2) or (d)(2) initial startup period or the Sec. 63.2850(e)(2) malfunction period applies, are excluded from this calculation. Equation 2 of Sec. 63.2840 is used to calculate this value. If the value is less than or equal to 1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance.

Continuous operation means any process that adds raw material and withdraws product simultaneously. Mass, temperature, concentration and other properties typically approach steady-state conditions.

Conventional desolventizer means a desolventizer toaster that operates with indirect and direct-contact steam to remove solvent from the extracted meal. Oilseeds processed in a conventional desolventizer produce crude vegetable oil and crude meal products, such as animal feed.

Corn germ dry milling means a source that processes corn germ that has been separated from the other corn components using a “dry” process of mechanical chafing and air sifting.

Corn germ wet milling means a source that processes corn germ that has been separated from other corn components using a “wet” process of centrifuging a slurry steeped in a dilute sulfurous acid solution.

Exempt period means a period of time during which a source processes agricultural products not defined as listed oilseed.

Extraction solvent means an organic chemical medium used to remove oil from an oilseed. Typically, the extraction solvent is a commercial grade of hexane isomers which have an approximate HAP content of 64 percent by volume.

Hazardous air pollutant (HAP) means any substance or mixture of substances listed as a hazardous air pollutant under section 112(b) of the Clean Air Act, as of April 12, 2001.

Initial startup date means the first calendar day that a new, reconstructed or significantly modified source processes any listed oilseed.

Initial startup period means a period of time from the initial startup date of a new, reconstructed or significantly modified source, for which you choose to operate the source under an initial startup period subject to Sec. 63.2850(c)(2) or (d)(2). During an initial startup period, a source is in compliance with the standards by following the operating and maintenance procedures listed for minimizing HAP emissions in the source's SSM plan rather than being subject to a HAP emission limit. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. Solvent and oilseed inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.

Large cottonseed plant means a vegetable oil production process that processes 120,000 tons or more of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Malfunction period means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period subject to Sec. 63.2850(e)(2). This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards by following the operating and maintenance procedures described for minimizing HAP emissions in the source's SSM plan rather than being subject to a HAP emission limit. Therefore, solvent and oilseed inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

Mechanical extraction means removing vegetable oil from oilseeds using only mechanical devices such as presses or screws that physically force the oil from the oilseed. Mechanical extraction techniques use no organic solvents to remove oil from an oilseed.

Nonoperating period means any period of time in which a source processes no agricultural product. This operating status does not apply during any period in which the source operates under an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period, as described in Sec. 63.2850(e)(2).

Normal operating period means any period of time in which a source processes a listed oilseed that is not categorized as an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period, as described in Sec. 63.2850(e)(2). At the beginning and ending dates of a normal operating period, solvent and oilseed inventory information is recorded and included in the compliance ratio determination.

Oilseed or listed oilseed means the following agricultural products: corn germ, cottonseed, flax, peanut, rapeseed (for example, canola), safflower, soybean, and sunflower.

Oilseed solvent loss factor means a ratio expressed as gallons of solvent loss per ton of oilseed processed. The solvent loss factors are presented in Table 1 of Sec. 63.2840 and are used to determine the allowable HAP loss.

Operating month means any calendar or accounting month in which a source processes any quantity of listed oilseed, excluding any entire calendar or accounting month in which the source operated under an initial startup period as described in Sec. 63.2850(c)(2) or (d)(2), or a malfunction period as described in Sec. 63.2850(e)(2). An operating month may include time intervals characterized by several types of operating status. However, an operating month must have at least one normal operating period.

Significant modification means the addition of new equipment or the modification of existing equipment that:

(1) Significantly affects solvent losses from your vegetable oil production process;

(2) The fixed capital cost of the new components represents a significant percentage of the fixed

capital cost of building a comparable new vegetable oil production process;

(3) The fixed capital cost of the new equipment does not constitute reconstruction as defined in Sec. 63.2; and

(4) Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, flash desolventizers, and distillation equipment associated with the mineral oil system, and equipment affecting desolventizing efficiency and steady-state operation of your vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills.

Small cottonseed plant means a vegetable oil production process that processes less than 120,000 tons of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

Solvent extraction means removing vegetable oil from listed oilseed using an organic solvent in a direct-contact system.

Solvent working capacity means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

Specialty desolventizer means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

Vegetable oil production process means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty

soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

10.10 Attachment 10 Applicable New Source Performance Standards (NSPS)

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--Subpart A--General Provisions

Sec. 60.1 Applicability.

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.

(1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the

site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for **Subpart** Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994; 62 FR 52641, Oct. 8, 1997]

Sec. 60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq.)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal

Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading "Department of Energy-Clean Coal Technology", up to a total amount of $2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of new source in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable **subpart**, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable **subpart**.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magneto hydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

(1) The provisions of this part; and/or

(2) The permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any **subpart**.

[44 FR 55173, Sept. 25, 1979, as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994]

Sec. 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A--ampere
g--gram
Hz--hertz
J--joule
K--degree Kelvin
kg--kilogram
m--meter
m^3--cubic meter
mg--milligram--10^{-3} gram
mm--millimeter--10^{-3} meter
Mg--megagram--10^6 gram
mol--mole
N--newton
ng--nanogram--10^{-9} gram
nm--nanometer--10^{-9} meter
Pa--pascal
s--second
V--volt
W--watt
Ω--ohm

µg--microgram--10^{-6} gram

(b) Other units of measure:

Btu--British thermal unit
°C--degree Celsius (centigrade)
cal--calorie
cfm--cubic feet per minute
cu ft--cubic feet
dcf--dry cubic feet
dcm--dry cubic meter
dscf--dry cubic feet at standard conditions
dscm--dry cubic meter at standard conditions
eq--equivalent
°F--degree Fahrenheit
ft--feet
gal--gallon
gr--grain
g-eq--gram equivalent
hr--hour
in--inch
k--1,000
l--liter
lpm--liter per minute
lb--pound
meq--milliequivalent
min--minute
ml--milliliter
mol. wt.--molecular weight
ppb--parts per billion
ppm--parts per million
psia--pounds per square inch absolute
psig--pounds per square inch gage
°R--degree Rankin
scf--cubic feet at standard conditions
scfh--cubic feet per hour at standard conditions
scm--cubic meter at standard conditions
sec--second
sq ft--square feet
std--at standard conditions

(c) Chemical nomenclature:

CdS--cadmium sulfide
CO--carbon monoxide
CO_2--carbon dioxide
HCl--hydrochloric acid
Hg--mercury
H_2O--water
H_2S--hydrogen sulfide

H_2SO_4--sulfuric acid
N_2--nitrogen
NO--nitric oxide
NO_2--nitrogen dioxide
NO_x--nitrogen oxides
O_2--oxygen
SO_2--sulfur dioxide
SO_3--sulfur trioxide
SO_x--sulfur oxides

(d) Miscellaneous:

A.S.T.M.--American Society for Testing and Materials

[42 FR 37000, July 19, 1977; 42 FR 38178, July 27, 1977]

Sec. 60.4 Address.

Refer to the regulations.

Sec. 60.5 Determination of construction or modification.

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

Sec. 60.6 Review of plans.

(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

(b) (1) A separate request shall be submitted for each construction or modification project.

(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on

any equipment to be used for measurement or control of emissions.

(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

Sec. 60.7 Notification and record keeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

(1) A notification of the date construction (or reconstruction as defined under Sec. 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) [Reserved]

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable **subpart** or in Sec. 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with Sec. 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

(6) A notification of the anticipated date for conducting the opacity observations required by Sec. 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by Sec. 60.8 in lieu of Method 9 observation data as allowed by Sec. 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable **subpart**; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with Sec. 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess

emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in Sec. 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in Sec. 60.7(c) shall both be submitted.

Figure 1--Summary Report--Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One -- SO_2/NO_X/TRS/H_2S/CO/Opacity)
Reporting period dates: From _____ to _____

Company:

Emission Limitation_____
Address:
Monitor Manufacturer and Model No._____
Date of Latest CMS Certification or Audit_____
Process Unit(s) Description:
Total source operating time in reporting period [1]_____

CMS performance
Emission data summary[1]
summary[1]

1. Duration of excess 1. CMS downtime in emissions in reporting period due period due to:

   a. Startup/shutdown

   b. Monitor equipment malfunctions.

   c. Control equipment

   d. Non-Monitor problems. Equipment malfunctions.

   e. Process problems

   f. Quality assurance calibration.

   g. Other known causes

   h. Other known causes.

   i. Unknown causes

2. Total duration of excess

3. Total CMS Downtime emission.

4. Total duration of excess % [2]

5. [Total CMS % [2] emissions x (100) [Total Downtime] x (100) source operating time]. [Total source operating time].

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and

the excess emission report described in Sec. 60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

_____
Name

_____
Signature

_____
Title

_____
Date

(e) (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable **subpart** to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this **subpart** and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her

intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS sub hourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of sub hourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS sub hourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all sub hourly measurements for the most recent reporting period. The sub hourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

Sec. 60.8 Performance tests.

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable **subpart** unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable **subpart**, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the

Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999]

Sec. 60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of Secs. 60.5 and 60.6 is governed by Secs. 2.201 through 2.213 of this chapter and not by Sec. 2.301 of this chapter.)

Sec. 60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.

(b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

Sec. 60.11 Compliance with standards and maintenance requirements.

(a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by Sec. 60.8, unless otherwise specified in the applicable standard.

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e) (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in Sec. 60.8 unless one of the following conditions apply. If no performance test under Sec. 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under Sec. 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in Sec. 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under Sec. 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an

affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under Sec. 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in Sec. 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by Sec. 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and Sec. 60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under Sec. 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under Sec. 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under Sec. 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under Sec. 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under Sec. 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in Sec. 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by Sec. 60.8, the opacity observation results and observer certification required by Sec. 60.11(e)(1), and the COMS results, if applicable, the

Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by Sec. 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with Sec. 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.

(f) Special provisions set forth under an applicable **subpart** shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable

requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

Sec. 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[39 FR 9314, Mar. 8, 1974]

Sec. 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable **subpart** or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under Sec. 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under Sec. 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under Sec. 60.8 is conducted.

Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under Sec. 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part, The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under Sec. 60.8 and as described in Sec. 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under Sec. 60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d) (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must automatically check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For continuous monitoring systems measuring opacity of emissions not using automatic zero

adjustments, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments. For systems using automatic zero adjustments, the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) (1) When more than one continuous monitoring system is used to measure the emissions from only one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless installation of fewer systems is approved by the Administrator.

(2) When the effluents from two or more affected facilities subject to the same opacity standard are combined before being released to the atmosphere, the owner or operator may either install a continuous opacity monitoring system at a location monitoring the combined effluent or install an opacity combiner system comprised of opacity and flow monitoring systems on each stream, and shall report as per Sec. 60.7(c) on the combined effluent. When the affected facilities are not subject to the same opacity standard, the owner or operator shall report the results as per Sec. 60.7(c) on the combined effluent against the most stringent opacity standard applicable, except for documented periods of shutdown of the affected facility, subject to the most stringent opacity standard. During such times, the next most stringent opacity standard shall apply.

(3) When the effluents from two or more affected facilities subject to the same emissions standard, other than opacity, are combined before being released to the atmosphere, the owner or operator may install applicable continuous emission monitoring systems on each effluent or on the combined effluent. The owner or operator may report the results as required for each affected facility or for the combined effluent. When the affected facilities are not subject to the same emissions standard, separate continuous emission monitoring systems shall be installed on each effluent and the owner or operator shall report as required for each affected facility.

(h) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in Sec. 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced

over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in Sec. 60.7(f) (1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any **subpart**.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in Sec. 60.8 of this **subpart** or other tests performed following the criteria in Sec. 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the

applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., Sec. 60.45(g) (2) and (3), Sec. 60.73(e), and Sec. 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000]

Editorial Note: At 65 FR 61749, Oct. 17, 2000, Sec. 60.13 was amended by revising the words "ng/J of pollutant" to read "ng of pollutant per J of heat input" in the sixth sentence of paragraph (h). However, the amendment could not be incorporated because the words "ng/J of pollutant" do not exist in the sixth sentence of paragraph (h).

Sec. 60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to

determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and Sec. 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by Sec. 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or

is replaced by a system which the Administrator determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable **subpart** of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

(j) (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

(i) Is designated as a replacement for an existing unit;

(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission

limitation compliance date under section 405 of the Clean Air Act; and

(iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A temporary clean coal control technology demonstration project, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

Sec. 60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable

entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(1) Name and address of the owner or operator.

(2) The location of the existing facility.

(3) A brief description of the existing facility and the components which are to be replaced.

(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(6) The estimated life of the existing facility after the replacements.

(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

(3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and

(4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

Sec. 60.16 Priority list.

Prioritized Major Source Categories

Priority Number[1]	Source Category
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines

10. Industrial Surface Coating: Fabric

11. Industrial-Commercial-Institutional Steam Generating Units.

12. Incineration: Non-Municipal (Deleted)

13. Non-Metallic Mineral Processing

14. Metallic Mineral Processing

15. Secondary Copper (Deleted)

16. Phosphate Rock Preparation

17. Foundries: Steel and Gray Iron

18. Polymers and Resins: Polyethylene

19. Charcoal Production

20. Synthetic Rubber

    (a) Tire manufacture

    (b) SBR production

21. Vegetable Oil

22. Industrial Surface Coating: Metal Coil

23. Petroleum Transportation and Marketing

24. By-Product Coke Ovens

25. Synthetic Fibers

26. Plywood Manufacture

27. Industrial Surface Coating: Automobiles

28. Industrial Surface Coating: Large Appliances

29. Crude Oil and Natural Gas Production

30. Secondary Aluminum

31. Potash (Deleted)

32. Lightweight Aggregate Industry: Clay, Shale, and Slate[2]
33. Glass
34. Gypsum
35. Sodium Carbonate
36. Secondary Zinc (Deleted)
37. Polymers and Resins: Phenolic
38. Polymers and Resins: Urea-Melamine
39. Ammonia (Deleted)
40. Polymers and Resins: Polystyrene
41. Polymers and Resins: ABS-SAN Resins
42. Fiberglass
43. Polymers and Resins: Polypropylene
44. Textile Processing
45. Asphalt Processing and Asphalt Roofing Manufacture
46. Brick and Related Clay Products
47. Ceramic Clay Manufacturing (Deleted)
48. Ammonium Nitrate Fertilizer
49. Castable Refractories (Deleted)
50. Borax and Boric Acid (Deleted)
51. Polymers and Resins: Polyester Resins
52. Ammonium Sulfate
53. Starch
54. Perlite
55. Phosphoric Acid: Thermal Process (Deleted)
56. Uranium Refining

57. Animal Feed Defluorination (Deleted)

58. Urea (for fertilizer and polymers)

59. Detergent (Deleted) Other Source Categories

Lead acid battery manufacture[3]
Organic solvent cleaning[3]
Industrial surface coating: metal furniture[3]
Stationary gas turbines[4]
Municipal solid waste landfills[4]

[1] Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

[2] Formerly titled "Sintering: Clay and Fly Ash".

[3] Minor source category, but included on list since an NSPS is being developed for that source category.

[4] Not prioritized, since an NSPS for this major source category has already been promulgated.

[47 FR 951, Jan. 8, 1982, as amended at 47 FR 31876, July 23, 1982; 51 FR 42796, Nov. 25, 1986; 52 FR 11428, Apr. 8, 1987; 61 FR 9919, Mar. 12, 1996]

Sec. 60.17 Incorporations by reference.

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC and at the Library (MD-35), U.S. EPA, Research Triangle Park, NC.

(a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by

reference (IBR) approved January 27, 1983 for Sec. 60.261.

(2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved January 27, 1983 for Sec. 60.261.

(3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved January 27, 1983 for Sec. 60.261.

(4) ASTM A482-76, 93, Standard Specification for Ferrochrome silicon, IBR approved January 27, 1983 for Sec. 60.261.

(5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved January 27, 1983 for Sec. 60.261.

(6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved January 27, 1983 for Sec. 60.261.

(7) ASTM D86-78, 82, 90, 93, 95, 96, Distillation of Petroleum Products, IBR approved for Secs. 60.562-2(d), 60.593(d), and 60.633(h).

(8) ASTM D129-64, 78, 95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for Appendix A: Method 19, Section 12.5.2.2.3; and Sec. 60.106(j)(2).

(9) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved January 27, 1983 for Secs. 60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.

(10) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.2.1.

(11) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved April 8, 1987 for Secs. 60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).

(12) ASTM D388-77, 90, 91, 95, 98a, Standard Specification for Classification of Coals by Rank, IBR approved for

Secs. 60.41(f), 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41a, 60.41b, and 60.251(b) and (c).

(13) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for Secs. 60.41b, 60.41c, 60.111(b), and 60.111a(b).

(14) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved January 27, 1983 for Secs. 60.111(b) and 60.111a(b).

(15) ASTM D1072-80, 90 (Reapproved 1994), Standard Method for Total Sulfur in Fuel Gases, IBR approved July 31, 1984 for Sec. 60.335(d).

(16) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved January 27, 1983 for Sec. 60.45(f)(5)(i).

(17) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.2.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.2.1; Method 7, Section 7.2.1; Method 7C, Section 7.2.1; Method 7D, Section 7.2.1; Method 10A, Section 7.2.1; Method 11, Section 7.2.3; Method 12, Section 7.2.3; Method 13A, Section 7.2.2; Method 26, Section 7.2.2; Method 26A, Section 7.2.2; and Method 29, Section 7.2.2.

(18) ASTM D1266-87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved August 17, 1989 for Sec. 60.106(j)(2).

(19) ASTM D1475-60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved January 27, 1983 for Sec. 60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.2.

(20) ASTM D1552-83, 95, Standard Test Method for Sulfur in Petroleum Products (High Temperature Method), IBR approved for Appendix A: Method 19, Section 12.5.2.2.3; and Sec. 60.106(j)(2).

(21) ASTM D1826-77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved January 27, 1983

for Secs. 60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.

(22) ASTM D1835-87, 91, 97, Standard Specification for Liquefied Petroleum (LP) Gases, approved for Secs. 60.41b and 60.41c.

(23) ASTM D1945-64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved January 27, 1983 for Sec. 60.45(f)(5)(i).

(24) ASTM D1946-77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for Secs. 60.45(f)(5)(i), 60.18(f)(3), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.564(f)(1), 60.704(d)(2)(ii), and 60.704(d)(4).

(25) ASTM D2013-72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved January 27, 1983, for Appendix A: Method 19, Section 12.5.2.1.3.

(26) ASTM D2015-77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved January 27, 1983 for Sec. 60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.

(27) ASTM D2016-74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.

(28) ASTM D2234-76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.1.

(29) ASTM D2369-81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved January 27, 1983 for Appendix A: Method 24, Section 6.2.

(30) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for Secs. 60.18(f)(3), 60.485(g)(6), 60.614(e)(4), 60.664(e)(4), 60.564(f)(3), and 60.704(d)(4).

(31) ASTM D2504-67, 77, 88 (Reapproved 1993), Noncondensable Gases in C_3 and Lighter Hydrocarbon

Products by Gas Chromatography, IBR approved for Sec. 60.485(g)(5).

(32) ASTM D2584-68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved February 25, 1985 for Sec. 60.685(c)(3)(i).

(33) ASTM D2622-87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry, IBR approved August 17, 1989 for Sec. 60.106(j)(2).

(34) ASTM D2879-83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved April 8, 1987 for Secs. 60.485(e)(1), 60.111b(f)(3), 60.116b(e)(3)(ii), and 60.116b(f)(2)(i).

(35) ASTM D2880-78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved January 27, 1983 for Secs. 60.111(b), 60.111a(b), and 60.335(d).

(36) ASTM D2908-74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for Sec. 60.564(j).

(37) ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, IBR approved January 27, 1983 for Appendix A: Method 5, Section 7.2.1; Method 12, Section 7.2.1; and Method 13A, Section 7.2.1.2.

(38) ASTM D3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation, IBR approved July 31, 1984 for Sec. 60.335(d).

(39) ASTM D3173-73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.3.

(40) ASTM D3176-74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved January 27, 1983 for Sec. 60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.

(41) ASTM D3177-75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR

approved January 27, 1983 for Appendix A: Method 19, Section 12.5.2.1.3.

(42) ASTM D3178-73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved January 27, 1983 for Sec. 60.45(f)(5)(i).

(43) ASTM D3246-81, 92, 96, Standard Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved July 31, 1984 for Sec. 60.335(d).

(44) ASTM D3270-73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.

(45) ASTM D3286-85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

(46) ASTM D3370-76, 95a, Standard Practices for Sampling Water, IBR approved for Sec. 60.564(j).

(47) ASTM D3792-79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved January 27, 1983 for Appendix A: Method 24, Section 6.3.

(48) ASTM D4017-81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved January 27, 1983 for Appendix A: Method 24, Section 6.4.

(49) ASTM D4057-81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.

(50) ASTM D4084-82, 94, Standard Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved July 31, 1984 for Sec. 60.335(d).

(51) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, 12.5.2.2.1.

(52) ASTM D4239-85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

(53) ASTM D4442-84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.

(54) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.

(55) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.

(56) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for Secs. 60.18(f)(3), 60.485(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).

(57) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials. IBR approved September 11, 1995 for Appendix A: Method 24, Section 6.6.

(58) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke. IBR approved for Sec. 60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.

(59) ASTM E168-67, 77, 92, General Techniques of Infrared Quantitative Analysis, IBR approved for Secs. 60.593(b)(2) and 60.632(f).

(60) ASTM E169-63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for Secs. 60.593(b)(2) and 60.632(f).

(61) ASTM E260-73, 91, 96, General Gas Chromatography Procedures, IBR approved for Secs. 60.593(b)(2) and 60.632(f).

(62)-(63) [Reserved]

(64) ASTM D 6216-98 Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved February 6, 2001 for appendix B, PS-1.

(b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12, IBR approved January 27, 1983 for Secs. 60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).

(c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for Secs. 60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).

(d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.

(1) TAPPI Method T624 os-68, IBR approved January 27, 1983 for Sec. 60.285(d)(3).

(e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 deg. C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for Sec. 60.683(b).

(f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.

(g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21 and 90 and 91, September 3, 1970, revised 1984.

(h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), 345 East 47th Street, New York, NY 10017.

(1) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for Secs. 60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).

(2) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for Secs. 60.46b, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).

(3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for Secs. 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).

(i) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for appendix A to part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29-3.

(j) "Standard Methods for the Examination of Water and Wastewater," 16th edition, 1985. Method 303F: "Determination of Mercury by the Cold Vapor Technique." This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.

(k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for Sec. 60.35e and Sec. 60.55c.

(l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for Sec. 60.31e.

[48 FR 3735, Jan. 27, 1983]

Editorial Note: For Federal Register citations affecting Sec. 60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

Sec. 60.18 General control device requirements.

(a) Introduction. This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.

(b) Flares. Paragraphs (c) through (f) apply to flares.

(c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max}, as determined by the following equation:

$$V_{max}=(X_{H2}-K_1)* K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in Sec. 60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating

value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max}, as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this **subpart** shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this **subpart** shall be operated at all times when emissions may be vented to them.

(f) (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible

emission provisions of this **subpart**. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = Constant,

$$1.740 \times 10^{-17} \left(\frac{1}{\text{ppm}}\right)\left(\frac{\text{g mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in Sec. 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in Sec. 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as

appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, V_{max}, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$Log_{10} (V_{max}) = (H_T + 28.8)/31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec
8.706 = Constant
0.7084 = Constant
H_T = The net heating value as determined in paragraph (f)(3).

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000]

Sec. 60.19 General notification and reporting requirements.

(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular

event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable **subpart** in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable **subpart** in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is

latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f) (1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--Subpart Dc-Small Industrial –Commercial-Industrial Steam Generating Units

Sec. 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, Ma 8, 1996]

Sec. 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam become a separate source (such as a

stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank" (incorporated by reference -- see § 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference -- see § 60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO_2) control system that is located between the steam generating

unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference -- see § 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2 emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference -- see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, Ma 8, 1996; 65 FR 61752, Oct. 17, 2000]

Sec. 60.42c Standard for sulfur dioxide.

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither:

(1) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 10 percent (0.10) of the potential SO_2 emission rate (90 percent reduction); nor

(2) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 90 percent SO_2 reduction requirement specified in this paragraph and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 20 percent (0.20) of the potential SO_2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is fired with coal refuse, the affected facility is subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 90 percent SO_2 reduction requirement specified in paragraph (a) of this section and the emission limit determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO_2 emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 50 percent (0.50) of the potential SO_2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 260 ng/J (0.60 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO_2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8

of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 million Btu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be

discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of the following:

(1) The percent of potential SO_2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel,

(ii) Has a heat input capacity greater than 22 MW (75 million Btu/hr), and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = (K_aH_a + K_bH_b + K_cH_c)/H_a + H_b + H_c)$$

Where:

E_s Is the SO_2 emission limit, expressed in ng/J or lb/million Btu heat input,

K_a Is 520 ng/J (1.2 lb/million Btu),

K_b Is 260 ng/J (0.60 lb/million Btu),

K_c Is 215 ng/J (0.50 lb/million Btu),

H_a Is the heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [million Btu]

H_b Is the heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (million Btu)

H_c Is the heat input from the combustion of oil, in J (million Btu).

(f) Reduction in the potential SO_2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO_2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO_2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(i) The SO_2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct 17, 2000]

Sec. 60.43c Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/million Btu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8

of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct 17, 2000]

Sec. 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and in § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) and § 60.8, compliance with the percent reduction requirements and SO_2 emission limits under § 60.42c is based on the average percent reduction and the average $S0_2$ emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction

and SO_2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 are used to determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average SO_2 emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). Method 19 shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho}°) is used in Equation 19-19 of Method 19 to compute the adjusted E_{ao} (E_{ao}°). The Ehoo is computed using the following formula:

$$E_{ho}^{\circ} = [E_{ho} - E_w(1 - X_k)]/X_k$$

Where:

E_{ho}° Is the adjusted E_{ho}, ng/J (lb/million Btu)

E_{ho} Is the hourly SO_2 emission rate, ng/J (lb/million Btu)

E_w Is the SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = 0.

X_k Is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) [where percent reduction is not required] does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the

fuel sampling and analysis procedures under Method 19.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100(1 - \%R_g/100)(1 - \%R_f/100)$$

Where

$\%P_s$ Is the percent of potential SO_2 emission rate, in percent

$\%R_g$ Is the SO_2 removal efficiency of the control device as determined by Method 19, in percent

$\%R_f$ Is the SO_2 removal efficiency of fuel pretreatment as determined by Method 19, in percent

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_g^\circ$) is computed from E_{ao}° from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate (E_{ai}°) using the following formula:

$$\%R_g^\circ = 100\ [1.0 - E_{ao}^\circ/E_{ai}^\circ)]$$

Where:

$\%R_g^\circ$ Is the adjusted %Rg, in percent

E_{ao}° Is the adjusted E_{ao}, ng/J (lb/million Btu)

E_{ai}° Is the adjusted average SO_2 inlet rate, ng/J (lb/million Btu)

(ii) To compute E_{ai}°, an adjusted hourly SO_2 inlet rate (E_{hi}°) is used. The E_{hi}° is computed using the following formula:

$$E_{hi}^{\circ} = [E_{hi} - E_w (1 - X_k)]/X_k$$

Where:

E_{hi}° Is the adjusted E_{hi}, ng/J (lb/million Btu)

E_{hi} Is the hourly SO_2 inlet rate, ng/J (lb/million Btu)

E_w Is the SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume E_w = O.

X_k Is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct. 17, 2000]

Sec. 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.

(1) Method 1 shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

(3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

(i) Method 5 may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrubber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(7) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

(ii) The dry basis F-factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(8) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct 17, 2000]

Sec. 60.46c Emission monitoring for sulfur dioxide

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO_2 emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO_2 concentrations and either oxygen or carbon dioxide concentrations at the outlet of the SO_2 control device (or the outlet of the steam generating unit if no SO_2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO_2 concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the SO_2 control device.

(b) The 1-hour average SO_2 emission rates measured by a CEMS shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO_2 emission rate must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO_2 CEMS at the inlet to the SO_2 control device shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted, and the span value of the SO_2 CEMS at the outlet from the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO_2 CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO_2 emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO_2 control device (or outlet of the steam generating unit if no SO_2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO_2 emission rate by using Method 6B. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B may be used in lieu of CEMS to measure SO_2 at the inlet or outlet of the SO_2 control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO_2 and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, as described under § 60.48c(f) (1), (2), or (3), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct 17, 2000]

Sec. 60.47c Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All COMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity COMS shall be between 60 and 80 percent.

[55 FR 37683, Sept. 12, 1990, as amended at 65 FR 61753, Oct. 17, 2000]

Sec. 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO_2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B.

(c) The owner or operator of each coal-fired, residual oil-fired, or wood-fired affected facility subject to the opacity limits under § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility which occur during the reporting period.

(d) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO_2 emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.43c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO_2 emission rate (nj/J or lb/million Btu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons

for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO_2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO_2 or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 (appendix B).

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified

statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage

facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[55 FR 37683, Sept. 12, 1990, as amended at 64 FR 7465, Feb 12, 1999; 65 FR 61753, Oct. 17, 2000]

Subpart Db—Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units

40 CFR 60.40b Applicability and delegation of authority.

40 CFR 60.40b(a)

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).

40 CFR 60.40b(b)

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

40 CFR 60.40b(b)(1)

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million Btu/hour), inclusive, are subject to the particulate matter and nitrogen oxides standards under this subpart.

40 CFR 60.40b(b)(2)

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the particulate matter and nitrogen oxides standards under this subpart and to the sulfur dioxide standards under subpart D (§60.43).

40 CFR 60.40b(b)(3)

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million Btu/hour), inclusive, are subject to the nitrogen oxides standards under this subpart.

40 CFR 60.40b(b)(4)

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the nitrogen oxides standards under this subpart and the particulate matter and sulfur dioxide standards under subpart D (§60.42 and §60.43).

40 CFR 60.40b(c)

(c) Affected facilities which also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the particulate matter and nitrogen oxides standards under this subpart and the sulfur dioxide standards under subpart J (§60.104).

40 CFR 60.40b(d)

(d) Affected facilities which also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the nitrogen oxides and particulate matter standards under this subpart.

40 CFR 60.40b(e)

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40a) are not subject to this subpart.

40 CFR 60.40b(f)

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing TRS as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.

40 CFR 60.40b(g)

(g) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the following authorities shall be retained by the Administrator and not transferred to a State.

40 CFR 60.40b(g)(1)

(1) Section 60.44b(f).

40 CFR 60.49b(g)(2)

(2) Section 60.44b(g).

40 CFR 60.40b(g)(3)

(3) Section 60.49b(a)(4).

40 CFR 60.40b(h)

(h) Affected facilities which meet the applicability requirements under subpart Eb (Standards of performance for municipal waste combustors; §60.50b) are not subject to this subpart.

[§60.40b(h) added at 63 FR 49454, Sept. 16, 1998]

40 CFR 60.40b(i)

(i) Unless and until subpart GG of this part is revised to extend the applicability of subpart GG of this part to steam generator units subject to this subpart, this subpart will continue to apply to combined cycle gas turbines that are capable of combusting more than 29 MW (100 million Btu/hour) heat input of fossil fuel in the steam generator. Only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG of this part.)

[§60.40b(i) added at 63 FR 49454, Sept. 16, 1998]

40 CFR 60.40b(j)

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

[§60.40b(j) added at 65 FR 61752, Oct. 17, 2000]

40 CFR 60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

Byproduct/waste means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

[Amended at 66 FR 49834, Oct. 1, 2001, effective Nov. 30, 2001]

Chemical manufacturing plants means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a Standard Specification for Classification of Coals by Rank (IBR—see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

[Amended at 65 FR 61752, Oct. 17, 2000]

Coal refuse means any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis.

Combined cycle system means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a heat recovery steam generating unit.

Conventional technology means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98 Standard Specifications for Fuel Oils (incorporated by reference—see §60.17).

[Amended at 65 FR 61752, Oct. 17, 2000]

Dry flue gas desulfurization technology means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

Emerging technology means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Full capacity means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

Heat release rate means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

Heat transfer medium means any material that is used to transfer heat from one point to another point.

High heat release rate means a heat release rate greater than 730,000 J/sec-m^3 (70,000 Btu/hour-ft^3).

Lignite means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a Standard Specification for Classification of Coals by Rank (IBR—see §60.17).

[Amended at 65 FR 61752, Oct. 17, 2000]

Low heat release rate means a heat release rate of 730,000 J/sec-m^3 (70,000 Btu/hour-ft^3) or less.

Mass-feed stoker steam generating unit means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

Maximum heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

Municipal-type solid waste means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-82, 86, 87, 91, or 97 "Standard Specification for Liquid Petroleum Gases" (IBR—see §60.17).

[Amended at 65 FR 61752, Oct. 17, 2000]

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

Petroleum refinery means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

Potential sulfur dioxide emission rate means the theoretical sulfur dioxide emissions (ng/J, lb/million Btu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Pulp and paper mills means industrial plants which are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

[Added at 66 FR 49834, Oct. 1, 2001]

Pulverized coal-fired steam generating unit means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.

Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (IBR—see §60.17).

Spreader stoker steam generating unit means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

Steam generating unit means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Very low sulfur oil means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input.

Wet flue gas desulfurization technology means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter or sulfur dioxide.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

40 CFR 60.42b Standard for sulfur dioxide.

40 CFR 60.42b(a)

(a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s=(K_aH_a+K_bH_b)/\ (H_a+H_b)$$

Where:

E_s Is the sulfur dioxide emission limit, in ng/J or lb/million Btu heat input

K_a Is 520 ng/J (or 1.2 lb/million Btu)

K_b Is 340 ng/J (or 0.80 lb/million Btu)

H_a Is the heat input from the combustion of coal, in J (million Btu)

H_b Is the heat input from the combustion of oil, in J (million Btu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

40 CFR 60.42b(b)

(b) On and after the date on which the performance test is completed or required to be completed under §60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 20 percent of the potential sulfur dioxide emission rate (80 percent reduction) and that contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

40 CFR 60.42b(c)

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of sulfur dioxide emissions, shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 50 percent of the potential sulfur dioxide emission rate (50 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$E_s = (K_cH_c+K_dH_d)/ H_c+H_d)$

Where:

E_s Is the sulfur dioxide emission limit, expressed in ng/J (lb/million Btu) heat input

K_c is 260 ng/J (0.60 lb/million Btu)

K_d Is 170 ng/J (0.40 lb/million Btu)

H_c Is the heat input from the combustion of coal, J (million Btu)

H_d Is the heat input from the combustion of oil, J (million Btu)

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

40 CFR 60.42b(d)

(d) On and after the date on which the performance test is completed or required to be completed under §60.8 of this part, whichever comes first, no owner or operator of an affected facility listed in paragraphs (d) (1), (2), or (3) of this section shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million Btu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/million Btu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), or (3).

[§60.42b(d) introductory text amended at 65 FR 61752, Oct. 17, 2000]

40 CFR 60.42b(d)(1)

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a Federally enforceable permit limiting the

operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

40 CFR 60.42b(d)(2)

(2) Affected facilities located in a noncontinental area; or

40 CFR 60.42b(d)(3)

(3) Affected facilities combusting coal or oil, alone or in combination with any other fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat input to the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat input to the steam generating unit is from the exhaust gases entering the duct burner.

40 CFR 60.42b(d)

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

40 CFR 60.42b(f)

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a Federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

40 CFR 60.42b(g)

(g) Except as provided in paragraph (i) of this section, the sulfur dioxide emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

40 CFR 60.42b(h)

(h) Reductions in the potential sulfur dioxide emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

40 CRR 60.42b(h)(1)

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential sulfur dioxide emissions and

40 CFR 60.42b(h)(2)

(2) Emissions from the pretreated fuel (without combustion or post combustion sulfur dioxide control) are equal to or less than the emission limits specified in paragraph (c) of this section.

40 CFR 60.42b(i)

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system.

40 CFR 60.42b(j)

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in §60.49b(r).

40 CFR 60.43b Standard for particulate matter.

40 CFR 60.43b(a)

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

40 CFR 60.43b(a)(1)

(1) 22 ng/J (0.051 lb/million Btu) heat input,

[§60.43b(a)(1) amended at 65 FR 61752, Oct. 17, 2000]

40 CFR 60.43b(a)(1)(i)

(i) If the affected facility combusts only coal, or

40 CFR 60.43b(a)(1)(ii)

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

40 CFR 60.43b(a)(2)

(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

40 CFT 60.43b(a)(3)

(3) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts coal or coal and other fuels and

40 CFT 60.43b(a)(3)(i)

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

40 CFR 60.43b(a)(3)(ii)

(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

40 CFR 60.43b(a)(3)(iii)

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and

40 CFR 60.43b(a)(3)(iv)

(iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.

40 CFR 60.43b(b)

(b) On and after the date on which the performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 43 ng/J (0.10 lb/million Btu) heat input.

40 CFR 60.43b(c)

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits:

40 CFR 60.43b(c)(1)

(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.

40 CFR 60.43b(c)(2)

(2) 86 ng/J (0.20 lb/million Btu) heat input if

40 CFR 60.43b(c)(2)(i)

(i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,

40 CFR 60.43b(c)(2)(ii)

(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and

40 CFR 60.43b(c)(2)(iii)

(iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.

40 CFR 60.43b(d)

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

40 CFR 60.43b(d)(1)

(1) 43 ng/J (0.10 lb/million Btu) heat input,

40 CFR 60.43b(d)(1)(i)

(i) If the affected facility combusts only municipal-type solid waste, or

40 CFR 60.43b(d)(1)(ii)

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

40 CFR 60.43b(d)(2)

(2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

40 CFR 60.43b(d)(2)(i)

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,

40 CFR 60.43b(d)(2)(ii)

(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

40 CFR 60.43b(d)(2)(iii)

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and

40 CFR 60.43b(d)(2)(iv)

(iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986.

40 CFR 60.43b(e)

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.

40 CFR 60.43b(f)

(f) On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

40 CFR 60.43b(g)

(g) The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

40 CFR 60.44b Standard for nitrogen oxides.

40 CFR 60.44b(a)

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO_2) in excess of the following emission limits:

[§60.44b(a) introductory text amended at 63 FR 49454, Sept. 16, 1998]

Fuel/Steam Generating Unit Type	Nitrogen Oxide Emission Limits ng/J (lb/Million Btu) (Expressed as NO_2) Heat Input
(1) Natural gas and distillate oil, except(4):	
(i) Low heat release rate.....	43 (0.10)
(ii) High heat release rate.....	86 (0.20)
(2) Residual oil:	
(i) Low heat release rate.....	130 (0.30)
(ii) High heat release rate.....	170 (0.40)
(3) Coal:	
(i) Mass-feed stoker.....	210 (0.50)
(ii) Spreader stoker and fluidized bed combustion.	260 (0.60)
(iii) Pulverized coal.....	300 (0.70)
(iv) Lignite, except (v).....	260 (0.60)
(v) Lignite mined in North Dakota, South..... Dakota, or Montana and combusted in a..... slag tap furnace.....	340 (0.80)
(vi) Coal-derived synthetic fuels.....	210 (0.50)
(4) Duct burner used in a combined cycle system	
(i) Natural gas and distillate oil.....	86 (0.20)
(ii) Residual oil.....	170 (0.40)

40 CFR 60.44b(b)

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of a limit determined by the use of the following formula:

[§60.44b(b) introductory text amended at 63 FR 49455, Sept. 16, 1998]

$$E_n = [(EL_{go}\ H_{go})+(EL_{ro}\ H_{ro})+(EL_c\ H_c)]/(H_{go}+H_{ro}+H_c)$$

Where:

E_n Is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu)

EL_{go} Is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/million Btu)

H_{go} Is the heat input from combustion of natural gas or distillate oil,

EL_{ro} Is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil,

H_{ro} Is the heat input from combustion of residual oil,

EL_c Is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

H_c Is the heat input from combustion of coal.

40 CFR 60.44b(c)

(c) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

[§60.44b(c) revised at 63 FR 49455, Sept. 16, 1998]

40 CFR 60.44b(d)

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be

discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 130 ng/J (0.30 lb/million Btu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

40 CFR 60.44b(e)

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

[§60.44b(e) introductory text amended at 63 FR 49454, Sept. 16, 1998]

$$E_n = [(EL_{go}\ H_{go}) + (EL_{ro}\ H_{ro}) + (EL_c\ H_c)] / (H_{go} + H_{ro} + H_c)$$

Where:

E_n Is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu)

EL_{go} Is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/million Btu).

H_{go} Is the heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, ng/J (lb/million Btu).

EL_{ro} Is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/million Btu)

H_{ro} Is the heat input from combustion of residual oil and/or liquid byproduct/waste.

EL_C Is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

H_C Is the heat input from combustion of coal.

40 CFR 60.44b(f)

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a nitrogen oxides emission limit which shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as nitrogen oxides emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

40 CFR 60.44b(f)(1)

(1) Any owner or operator of an affected facility petitioning for a facility-specific nitrogen oxides emission limit under this section shall:

40 CFR 60.44b(f)(1)(i)

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, by conducting a 30-day performance test as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

40 CFR 60.44b(f)(1)(ii)

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied

when demonstrating compliance under paragraph (f)(1)(i) of this section.

40 CFR 60.44b(f)(2)

(2) The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific nitrogen oxides emission limit will be established at the nitrogen oxides emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing nitrogen oxides emissions.

40 CFR 60.44b(g)

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the nitrogen oxides emission limit which applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on nitrogen oxides emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the nitrogen oxides emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the nitrogen oxides emission limits of this section. The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).)

40 CFR 60.44b(h)

(h) For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times including periods of startup, shutdown, or malfunction.

40 CFR 60.44b(i)

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

40 CFR 60.44b(j)

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

40 CFR 60.44b(j)(1)

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

40 CFR 60.44b(j)(2)

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

40 CFR 60.44b(j)(3)

(3) Are subject to a Federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.

40 CFR 60.44b(k)

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 million Btu/hour)

or less, are not subject to the nitrogen oxides emission limits under this section.

40 CFR 60.44b(l)

(l) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility which commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO_2) in excess of the following limits:

40 CFR 60.44b(l)(1)

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J_I (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

40 CFR 60.44b(l)(2)

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = [(0.10 * H_{go}) + (0.20 * H_r)] / (H_{go} + H_r)$$

Where:

E_n Is the NO_X emission limit, (lb/million Btu),

H_{go} Is the heat input from combustion of natural gas or distillate oil, and

H_r Is the heat input from combustion of any other fuel.

[§60.44b(l) added at 63 FR 49455, Sept. 16, 1998; revised at 66 FR 42610, Aug. 14, 2001]

40 CFR 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

40 CFR 60.45b(a)

(a) The sulfur dioxide emission standards under §60.42b apply at all times.

40 CFR 60.45b(b)

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

40 CFR 60.45b(c)

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential sulfur dioxide emission rate (% P_s) and the sulfur dioxide emission rate (E_s) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) of this section.

40 CFR 60.45b(c)(1)

(1) The initial performance test shall be conducted over the first 30 consecutive operating days of the steam generating unit. Compliance with the sulfur dioxide standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

40 CFR 60.45b(c)(2)

(2) lf only coal or only oil is combusted, the following procedures are used:

40 CFR 60.45b(c)(2)(i)

(i) The procedures in Method 19 are used to determine the hourly sulfur dioxide emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the

continuous emission monitoring system of §60.47b(a) or (b).

40 CFR 60.45b(c)(2)(ii)

(ii) The percent of potential sulfur dioxide emission rate (% P_s) emitted to the atmosphere is computed using the following formula:

$$\% P_s = 100 (1 - \% R_g/100)(1 - \% R_f/100)$$

Where:

% R_g Is the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent.

% R_f Is the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent.

40 CFR 60.45b(c)(3)

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:

40 CFR 60.45b(c)(3)(i)

(i) An adjusted hourly sulfur dioxide emission rate (E_{ho}^{o}) is used in Equation 19-19 of Method 19 to compute an adjusted 30-day average emission rate (E_{ao}^{o}). The E_{ho} is computed using the following formula:

$$E_{ho}^{o} = [E_{ho} - E_w(1 - X_k)]/X_k$$

Where:

E_{ho}^{o} Is the adjusted hourly sulfur dioxide emission rate, ng/J (lb/million Btu).

E_{ho} Is the hourly sulfur dioxide emission rate, ng/J (lb/million Btu).

E_w Is the sulfur dioxide concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted.

X_k Is the fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19.

40 CFR 60.45b(c)(3)(ii)

(ii) To compute the percent of potential sulfur dioxide emission rate (% P_s), an adjusted % R_g (% R_g^o) is computed from the adjusted E_{ao}^o from paragraph (b)(3)(i) of this section and an adjusted average sulfur dioxide inlet rate (E_{ai}^o) using the following formula:

$$\% R_g^o = 100 (1.0 - E_{ao}^o / E_{ai}^o)$$

To compute E_{ai}^o, an adjusted hourly sulfur dioxide inlet rate (E_{hi}^o) is used. The E_{hi}^o is computed using the following formula:

$$E_{hi}^o = [E_{hi} - E_w (1 - X_k)] / X_k$$

Where:

E_{hi}^o Is the adjusted hourly sulfur dioxide inlet rate, ng/J (lb/million Btu).

E_{hi} Is the hourly sulfur dioxide inlet rate, ng/J (lb/million Btu).

40 CFR 60.45b(c)(4)

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters E_w or X_k if the owner or operator elects to assume that X_k=1.0. Owners or operators of affected facilities who assume X_k=1.0 shall

40 CFR 60.45b(c)(4)(i)

(i) Determine % P_s following the procedures in paragraph (c)(2) of this section, and

40 CFR 60.45b(c)(4)(ii)

(ii) Sulfur dioxide emissions (E_S) are considered to be in compliance with sulfur dioxide emission limits under §60.42b.

40 CFR 60.45b(c)(5)

(5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters E_W or X_k under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure sulfur dioxide emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19.

40 CFR 60.45b(d)

(d) Except as provided in paragraph (j), the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

40 CFR 60.45b(d)(1)

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

40 CFR 60.45b(d)(2)

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a continuous emission measurement system (CEMS) is used, or based on a daily average if Method 6B or fuel sampling and analysis procedures under Method 19 are used.

40 CFR 60.45b(e)

(e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to

determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

40 CFR 60.45b(f)

(f) For the initial performance test required under §60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

40 CFR 60.45b(g)

(g) After the initial performance test required under §60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for sulfur dioxide are calculated to show compliance with the standard.

40 CFR 60.45b(h)

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid sulfur dioxide emissions data in calculating % P_s and E_{ho} under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid

sulfur dioxides emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating % P_s and E_{ho} pursuant to paragraph (c) of this section.

40 CFR 60.45b(i)

(i) During periods of malfunction or maintenance of the sulfur dioxide control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate % P_s or E_s under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).

40 CFR 60.45b(j)

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

40 CFR 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

40 CFR 60.46b(a)

(a) The particulate matter emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under §60.44b apply at all times.

40 CFR 60.46b(b)

(b) Compliance with the particulate matter emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section.

40 CFR 60.46b(c)

(c) Compliance with the nitrogen oxides emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

40 CFR 60.46b(d)

(d) To determine compliance with the particulate matter emission limits and opacity limits under §60.43b, the

owner or operator of an affected facility shall conduct an initial performance test as required under §60.8 using the following procedures and reference methods:

40 CFR 60.46b(d)(1)

(1) Method 3B is used for gas analysis when applying Method 5 or Method 17.

40 CFR 60.46b(d)(2)

(2) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of particulate matter as follows:

40 CFR 60.46b(d)(2)(i)

(i) Method 5 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

40 CFR 60.46b(d)(2)(ii)

(ii) Method 17 may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160°C (320°F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.

40 CFR 60.46b(d)(2)(iii)

(iii) Method 5B is to be used only after wet FGD systems.

40 CFR 60.46b(d)(3)

(3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

40 CFR 60.46b(d)(4)

(4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14°C (320±25°F).

[§60.46b(d)(4) amended at 65 FR 61752, Oct. 17, 2000]
40 CFR 60.46b(d)(5)

(5) For determination of particulate matter emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B or Method 17 by traversing the duct at the same sampling location.

40 CFR 60.46b(d)(6)

(6) For each run using Method 5, Method 5B or Method 17, the emission rate expressed in nanograms per joule heat input is determined using:

40 CFR 60.46b(d)(6)(i)

(i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section,

40 CFR 60.46b(d)(6)(ii)

(ii) The dry basis F factor, and

40 CFR 60.46b(d)(6)(iii)

(iii) The dry basis emission rate calculation procedure contained in Method 19.

[§60.46b(d)(6)(iii) amended at 65 FR 61752, Oct. 17, 2000]
40 CFR 60.46b(d)(7)

(7) Method 9 is used for determining the opacity of stack emissions.

40 CFR 60.46b(e)

(e) To determine compliance with the emission limits for nitrogen oxides required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides under §60.48(b).

40 CFR 60.46b(e)(1)

(1) For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under §60.44b. The 30-day average emission rate is calculated as the average

of all hourly emissions data recorded by the monitoring system during the 30-day test period.

40 CFR 60.46b(e)(2)

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the nitrogen oxides emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

40 CFR 60.46b(e)(3)

(3) Following the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity greater than 73 MW (250 million Btu/hour) and which combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

40 CFR 60.46b(e)(4)

(4) Following the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less and which combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the nitrogen oxides standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, nitrogen oxides emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are

used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

40 CFR 60.46b(e)(5)

(5) If the owner or operator of an affected facility which combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of paragraph (iii) of this section apply and the provisions of paragraph (iv) of this section are inapplicable.

40 CFR 60.46b(f)

(f) To determine compliance with the emissions limits for NO_X required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

40 CFR 60.46b(f)(1)

(1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:

40 CFR 60.46b(f)(1)(i)

(i) The emissions rate (E) of NO_X shall be computed using Equation of 1 this section:

$$E = Esg + (Hg / Hb)(Esg - Eg) \quad \text{(Eq. 1)}$$

Where:

E = Emissions rate of NO_X from the duct burner, ng/J (lb/million Btu) heat input

Esg = Combined effluent emissions rate, in ng/J (lb/million Btu) heat input using appropriate F-Factor as described in Method 19

Hg = Heat input rate to the combustion turbine, in Joules/hour (million Btu/hour)

Hb = Heat input rate to the duct burner, in Joules/hour (million Btu/hour)

Eg = Emissions rate from the combustion turbine, in ng/J (lb/million Btu) heat input calculated using appropriate F-Factor as described in Method 19

40 CFR 60.46b(f)(1)(ii)

(ii) Method 7E of appendix A of this part shall be used to determine the NO_X concentrations. Method 3A or 3B of appendix A of this part shall be used to determine oxygen concentration.

40 CFR 60.46b(f)(1)(iii)

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

40 CFR 60.46b(f)(1)(iv)

(iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

40 CFR 60.46b(f)(2)

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the continuous emission monitoring system specified under §60.48b for measuring NO_X and oxygen and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO_X emissions rate at the outlet from the steam generating unit shall constitute the NO_X emissions rate from the duct burner of the combined cycle system.

[§60.46b(f) revised at 66 FR 18553, April 10, 2001]
40 CFR 60.46b(g)

(g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum

heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME Power Test Codes 4.1 (see IBR §60.17(h)). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

40 CFR 60.46b(h)

(h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 million Btu/hour) shall:

40 CFR 60.46b(h)(1)

(1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the nitrogen oxides emission standards under §60.44b using Method 7, 7A, 7E, or other approved reference methods; and

40 CFR 60.46b(h)(2)

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.

40 CFR 60.47b Emission monitoring for sulfur dioxide.

40 CFR 60.47b(a)

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the sulfur dioxide standards under §60.42b shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O_2) or carbon dioxide (CO_2) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.

40 CFR 60.47b(b)

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average sulfur dioxide emissions and percent reduction by:

40 CFR 60.47b(b)(1)

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19. Method 19provides procedures for converting these measurements into the format to be used in calculating the average sulfur dioxide input rate, or

40 CFR 60.47b(b)(2)

(2) Measuring sulfur dioxide according to Method 6B at the inlet or outlet to the sulfur dioxide control system. An initial stratification test is required to verify the adequacy of the Method 6bsampling location. The stratification test shall consist of three paired runs of a suitable sulfur dioxide and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B, Method 6A, or a combination of Methods 6 and 3 or 3B or Methods 6C and 3A are suitable measurement techniques. If Method 6Bis used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6b 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

40 CFR 60.47b(b)(3)

(3) A daily sulfur dioxide emission rate, E_D, shall be determined using the procedure described in Method 6A, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/million Btu) heat input.

40 CFR 60.47b(b)(4)

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/million Btu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19.

40 CFR 60.47b(c)

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

40 CFR 60.47b(d)

(d) The 1-hour average sulfur dioxide emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/million Btu heat input and is used to calculate the average emission rates under §60.42b. Each 1-hour average sulfur dioxide emission rate must be based on more than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

40 CFR 60.47b(e)

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

40 CFR 60.47b(e)(1)

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B)).

40 CFR 60.47b(e)(2)

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

40 CFR 60.47b(e)(3)

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the sulfur dioxide CEMS at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted, and the span value of the CEMS at the outlet to the sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted.

40 CFR 60.47b(f)

(f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

40 CFR 60.48b Emission monitoring for particulate matter and nitrogen oxides.

40 CFR 60.48b(a)

(a) The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

40 CFR 60.48b(b)

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility shall comply with either paragraphs (b)(1) or (b)(2) of this section.

40 CFR 60.48b(b)(1)

(1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or

40 CFR 60.48b(b)(2)

(2) If the owner or operator has installed a nitrogen oxides emission rate continuous emission monitoring system (CEMS) to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

[§60.48b(b) revised at 63 FR 49455, Sept. 16, 1998]

40 CFR 60.48b(c)

(c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

40 CFR 60.48b(d)

(d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(b). At least 2 data points must be used to calculate each 1-hour average.

40 CFR 60.48b(e)

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

40 CFR 60.48b(e)(1)

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

40 CFR 60.48b(e)(2)

(2) For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span Values for Nitrogen Oxides (PPM)
Natural gas	500
Oil	500
Coal	1,000
Mixtures	500(x+y)+1,000z

Where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

40 CFR 60.48b(e)(3)

(3) All span values computed under paragraph (e)(2) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.

40 CFR 60.48b(f)

(f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7a, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

40 CFR 60.48b(g)

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

40 CFR 60.48b(g)(1)

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section, or

40 CFR 60.48b(g)(2)

(2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to §60.49b(c).

40 CFR 60.48b(h)

(h) The owner or operator of a duct burner, as described in §60.41b, which is subject to the NO_X standards of §60.44b(a)(4) or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO_X emissions.

[§60.48b(h) revised at 66 FR 18553, April 10, 2001]

40 CFR 60.48b(i)

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.

40 CFR 60.49b Reporting and recordkeeping requirements.

40 CFR 60.49b(a)

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

40 CFR 60.49b(a)(1)

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,

40 CFR 60.49b(a)(2)

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), (c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i),

40 CFR 60.49b(a)(3)

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and,

40 CFR 60.49b(a)(4)

(4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42b(a) unless and until this determination is made by the Administrator.

40 CFR 60.49b(b)

(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

40 CFR 60.49b(c)

(c) The owner or operator of each affected facility subject to the nitrogen oxides standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2)

and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. The plan shall:

40 CFR 60.49b(c)(1)

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

40 CFR 60.49b(c)(2)

(2) Include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions;

40 CFR 60.49b(c)(3)

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).

If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.

40 CFR 60.49b(d)

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is

determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[§60.49b(d) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(e)

(e) For an affected facility that combusts residual oil and meets the criteria under § §60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (IBR-see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

[§60.49b(e) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(f)

(f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

40 CFR 60.49b(g)

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

40 CFR 60.49b(g)(1)

(1) Calendar date.

40 CFR 60.49b(g)(2)

2) The average hourly nitrogen oxides emission rates (expressed as NO_2) (ng/J or lb/million Btu heat input) measured or predicted.

40 CFR 60.49b(g)(3)

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

40 CFR 60.49b(g)(4)

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

40 CFR 60.49b(g)(5)

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

40 CFR 60.49b(g)(6)

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

40 CFR 60.49b(g)(7)

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

40 CFR 60.49b(g)(8)

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

40 CFR 60.49b(g)(9)

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

40 CFR 60.49b(g)(10)

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix f, Procedure 1.

40 CFR 60.49b(h)

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions which occurred during the reporting period.

[§60.49b(h) introductory text amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(h)(1)

(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

40 CFR 60.49b(h)(2)

(2) Any affected facility that is subject to the nitrogen oxides standard of §60.44b, and that

40 CFR 60.49b(h)(2)(i)

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or

40 CFR 60.49b(h)(2)(ii)

(ii) Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

40 CFR 60.49b(h)(3)

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

40 CFR 60.49b(h)(4)

(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under §60.46b(e), which exceeds the applicable emission limits in §60.44b.

40 CFR 60.49b(i)

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

[§60.49b(i) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(j)

(j) The owner or operator of any affected facility subject to the sulfur dioxide standards under §60.42b shall submit reports.

[§60.49b(j) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(k)

(k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

40 CFR 60.49b(k)(1)

(1) Calendar dates covered in the reporting period.

40 CFR 60.49b(k)(2)

(2) Each 30-day average sulfur dioxide emission rate (ng/J or 1b/million Btu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.

[§60.49b(k)(2) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(k)(3)

(3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.

[§60.49b(k)(3) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(k)(4)

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken.

40 CFR 60.49b(k)(5)

(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

40 CFR 60.49b(k)(6)

(6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

40 CFR 60.49b(k)(7)

(7) Identification of times when hourly averages have been obtained based on manual sampling methods.

40 CFR 60.49b(k)(8)

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.

40 CFR 60.49b(k)(9)

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.

40 CFR 60.49b(k)(10)

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

40 CFR 60.49b(k)(11)

(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

40 CFR 60.49b(l)

(l) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:

40 CFR 60.49b(l)(1)

(1) Calendar dates when the facility was in operation during the reporting period;

40 CFR 60.49b(l)(2)

(2) The 24-hour average sulfur dioxide emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

40 CFR 60.49b(l)(3)

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken.

40 CFR 60.49b(l)(4)

(4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

40 CFR 60.49b(l)(5)

(5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

40 CFR 60.49b(l)(6)

(6) Identification of times when hourly averages have been obtained based on manual sampling methods.

40 CFR 60.49b(l)(7)

(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS.

40 CFR 60.49b(l)(8)

(8) Description of any modifications to the CEMS which could affect the ability of the CEMS to comply with Performance Specification 2 or 3.

40 CFR 60.49b(l)(9)

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

40 CFR 60.49b(m)

(m) For each affected facility subject to the sulfur dioxide standards under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

[§60.49b(m) introductory text amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(m)(1)

(1) The number of hourly averages available for outlet emission rates and inlet emission rates.

40 CFR 60.49b(m)(2)

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19, section 7.

40 CFR 60.49b(m)(3)

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19, section 7.

40 CFR 60.49b(m)(4)

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19, section 7.

40 CFR 60.49b(n)

(n) If a percent removal efficiency by fuel pretreatment (i.e., % R_f) is used to determine the overall percent reduction (i.e., % R_o) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

40 CFR 60.49b(n)(1)

(1) Indicating what removal efficiency by fuel pretreatment (i.e., % R_f) was credited during the reporting period;

[§60.49b(n)(1) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(n)(2)

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period.

[§60.49b(n)(2) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(n)(3)

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit.

40 CFR 60.49b(n)(4)

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 (appendix A) and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

40 CFR 60.49b(o)

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

40 CFR 60.49b(p)

(p) The owner or operator of an affected facility described in §§60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

40 CFR 60.49b(p)(1)

(1) Calendar date,

40 CFR 60.49b(p)(2)

(2) The number of hours of operation, and

40 CFR 60.49b(p)(3)

(3) A record of the hourly steam load.

40 CFR 60.49b(q)

(q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:

[§60.49b(q) introductory text amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(q)(1)

(1) The annual capacity factor over the previous 12 months,

40 CFR 60.49b(q)(2)

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and

[§60.49b(q)(2) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(q)(3)

(3) If the affected facility meets the criteria described in §60.44b(j), the results of any nitrogen oxides emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last nitrogen oxides emission test.

[§60.49b(q)(3) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(r)

(r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the reporting period.

[§60.49b(r) amended at 64 FR 7464, Feb. 12, 1999]

40 CFR 60.49b(s)

(s) Facility specific nitrogen oxides standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

40 CFR 60.49b(s)(1)

(1) Definitions.

Oxidation zone is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

Reducing zone is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

Total inlet air is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

40 CFR 60.49b(s)(2)

(2) Standard for nitrogen oxides.

40 CFR 60.49b(s)(2)(i)

(i) When fossil fuel alone is combusted, the nitrogen oxides emission limit for fossil fuel in §60.44b(a) applies.

40 CFR 60.49b(s)(2)(ii)

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the nitrogen oxides emission limit is 289 ng/J (0.67 lb/million Btu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

40 CFR 60.49b(s)(3)

(3) Emission monitoring.

40 CFR 60.49b(s)(3)(i)

(i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.

40 CFR 60.49b(s)(3)(ii)

(ii) The nitrogen oxides emission limit shall be determined by the compliance and performance test methods and procedures for nitrogen oxides in §60.46b(i).

40 CFR 60.49b(s)(3)(iii)

(iii) The monitoring of the nitrogen oxides emission limit shall be performed in accordance with §60.48b.

40 CFR 60.49b(s)(4)

(4) Reporting and recordkeeping requirements.

40 CFR 60.49b(s)(4)(i)

(i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

40 CFR 60.49b(s)(4)(ii)

(ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3)of this section for a period of 2 years following the date of such record.

40 CFR 60.49b(s)(4)(iii)

(iii) The owner of operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

[§60.49b(s) amended at 64 FR 7464, Feb. 12, 1999; revised at 65 FR 13243, March 13, 2000]

40 CFR 60.49b(t)

(t) Facility-specific nitrogen oxides standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

40 CFR 60.49b(t)(1)

(1) Definitions.

Air ratio control damper is defined as the part of the low nitrogen oxides burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

Flue gas recirculation line is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

40 CFR 60.49b(t)(2)

(2) Standard for nitrogen oxides.

40 CFR 60.49b(t)(2)(i)

(i) When fossil fuel alone is combusted, the nitrogen oxides emission limit for fossil fuel in §60.44b(a) applies.

40 CFR 60.49b(t)(2)(ii)

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the nitrogen oxides emission limit is 473 ng/J (1.1 lb/million Btu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

40 CFR 60.49b(t)(3)

(3) Emission monitoring for nitrogen oxides.

40 CFR 60.49b(t)(3)(i)

(i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

40 CFR 60.49b(t)(3)(ii)

(ii) The nitrogen oxides emission limit shall be determined by the compliance and performance test methods and procedures for nitrogen oxides in §60.46b.

40 CFR 60.49b(t)(3)(iii)

(iii) The monitoring of the nitrogen oxides emission limit shall be performed in accordance with §60.48b.

40 CFR 60.49b(t)(4)

(4) Reporting and recordkeeping requirements.

40 CFR 60.49b(t)(4)(i)

(i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

40 CFR 60.49b(t)(4)(ii)

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

40 CFR 60.49b(t)(4)(iii)

(iii) The owner of operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

[§60.49b(t) added at 60 FR 28062, May 30, 1995]

40 CFR 60.49b(u)

(u) Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.

40 CFR 60.49b(u)(1)

(1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

40 CFR 60.49b(u)(1)(i)

(i) The site shall equip the natural gas-fired boilers with low nitrogen oxide (NO_X) technology.

40 CFR 60.49b(u)(1)(ii)

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO_X emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

40 CFR 60.49b(u)(1)(iii)

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a stack test to quantify criteria pollutant emissions.

40 CFR 60.49b(u)(2)

(2) [Reserved]

[§60.49b(u) added at 62 FR 52641, Oct. 8, 1997]

40 CFR 60.49b(v)

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO_2 and/or NO_X and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The

electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

[§60.49b(v) added at 63 FR 49455, Sept. 16, 1998]

40 CFR 60.49b(w)

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[§60.49b(w) added at 65 FR 13243, March 13, 2000]

Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

40 CFR 60.480 Applicability and designation of affected facility.

40 CFR 60.480(a)

(a) (1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

40 CFR 60.480(a)(2)

(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility.

40 CFR 60.480(b)

(b) Any affected facility under paragraph (a) of this section that commences construction or modification after January 5, 1981, shall be subject to the requirements of this subpart.

40 CFR 60.480(c)

(c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a

capital expenditure shall not by itself be considered a modification under this subpart.

40 CFR 60.480(d)

(d) (1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486(i).

40 CFR 60.480(d)(2)

(2) Any affected facility that has the design capacity to produce less than 1,000 Mg/yr (1,102 ton/yr) is exempt from §60.482.

[§60.480(d)(2) amended at 65 FR 61762, Oct. 17, 2000]

40 CFR 60.480(d)(3)

(3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §60.482.

40 CFR 60.480(d)(4)

(4) Any affected facility that produces beverage alcohol is exempt from §60.482.

40 CFR 60.480(d)(5)

(5) Any affected facility that has no equipment in VOC service is exempt from §60.482.

40 CFR 60.480(e)

(e) Alternative means of compliance.

40 CFR 60.480(e)(1)

(1) Option to comply with part 65. Owners or operators may choose to comply with the provisions of 40 CFR Part 65, subpart F, to satisfy the requirements of §§60.482 through 60.487 for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §60.485(d), (e), and (f), and §60.486(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

40 CFR 60.480(e)(2)

(2) Part 60, subpart A. Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.

[§60.480(e) added at 65 FR 78276, Dec. 14, 2000]

40 CFR 60.481 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in subpart A of Part 60, and the following terms shall have the specific meanings given them.

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

(a) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation:

$P = R \times A$

Where

(1) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected the following equation:

$A = Y \times (B \div 100)$;

(2) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 1982 minus the year of construction; and

(3) Applicable basic annual asset guideline repair allowance, B, is selected from the following table consistent with the applicable subpart:

Table for Determining Applicable for B

Subpart applicable to facility	Value of B to Be Used in Equation
VV	12.5
DDD	12.5
GGG	7.0
KKK	4.5

[Amended at 65 FR 61762, Oct. 17, 2000]

Closed vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

[Revised at 60 FR 43257, Aug. 18, 1995; amended at 65 FR 78276, Dec. 14, 2000]

Connector means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.

Control device means an enclosed combustion device, vapor recovery system, or flare.

Distance piece means an open or enclosed casing through which the piston rod travels, separating the compressor cylinder from the crankcase.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

[Added at 65 FR 78276, Dec. 14, 2000]
Equipment means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.

Fuel gas means gases that are combusted to derive useful work or heat.

[Added at 65 FR 78276, Dec. 14, 2000]

Fuel gas system means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination.

[Added at 65 FR 78276, Dec. 14, 2000]

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007-2900).

[Added at 65 FR 78276, Dec. 14, 2000]

In gas/vapor service means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in §60.485(e).

In-situ sampling systems means nonextractive samplers or in-line samplers.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa)(0.7 psia) below ambient pressure.

[Amended at 65 FR 61762, Oct. 17, 2000]

In VOC service means that the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight. (The provisions of §60.485(d) specify how to determine that a piece of equipment is not in VOC service.)

Liquids dripping means any visible leakage from the seal including spraying, misting, clouding, and ice formation.

Open-ended valve or line means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Pressure release means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

Process improvement means routine changes made for safety and occupational health requirements, for energy savings, for better utility, for ease of maintenance and operation, for correction of design deficiencies, for bottleneck removal, for changing product requirements, or for environmental control.

Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in §60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Quarter means a 3-month period; the first quarter concludes on the last day of the last full month during the 180 days following initial startup.

Repaired means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

[Amended at 65 FR 61762, Oct. 17, 2000]

Replacement cost means the capital needed to purchase all the depreciable components in a facility.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take nonroutine grab samples is not considered a sampling connection system.

[Added at 65 FR 78276, Dec. 14, 2000]

Sensor means a device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH, or liquid level.

Synthetic organic chemicals manufacturing industry means the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489.

Volatile organic compounds or VOC means, for the purposes of this subpart, any reactive organic compounds as defined in §60.2 Definitions.

40 CFR 60.482-1 Standards: General.

40 CFR 60.482-1(a)

(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482-1 through 60.482-10 or §60.480(e) for all equipment within 180 days of initial startup.

[§60.482-1(a) amended at 65 FR 78276, Dec. 14, 2000]

40 CFR 60.482-1(b)

(b) Compliance with §§60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in §60.485.

40 CFR 60.482-1(c)

(c) (1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of §§60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in §60.484.

40 CFR 60.482-1(c)(2)

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the

requirements of §§60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, an owner or operator shall comply with the requirements of that determination.

40 CFR 60.482-1(d)

(d) Equipment that is in vacuum service is excluded from the requirements of §§60.482-2 to 60.482-10 if it is identified as required in §60.486(e)(5).

40 CFR 60.482-2 Standards: Pumps in light liquid service.

40 CFR 60.482-2(a)

(a) (1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482-1(c) and paragraphs (d), (e), and (f) of this section.

40 CFR 60.482-2(a)(2)

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

40 CFR 60.482-2(b)

(b) (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

40 CFR 60.482-2(b)(2)

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

40 CFR 60.482-2(c)

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.

40 CFR 60.482-2(c)(2)

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 CFR 60.482-2(d)

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a), Provided the following requirements are met:

40 CFR 60.482-2(d)(1)

(1) Each dual mechanical seal system is-

40 CFR 60.482-2(d)(1)(i)

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

40 CFR 60.482-2(d)(1)(ii)

(ii) Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482-10; or

[§60.482-2(d)(1)(ii) amended at 65 FR 78276, Dec. 14, 2000]

40 CFR 60.482-2(d)(1)(iii)

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

40 CFR 60.482-2(d)(2)

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

40 CFR 60.482-2(d)(3)

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

40 CFR 60.482-2(d)(4)

(4) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

40 CFR 60.482-2(d)(5)

(5) (i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm, and

40 CFR 60.482-2(d)(5)(ii)

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

40 CFR 60.482-2(d)(6)

(6) (i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph (d)(5)(ii), a leak is detected.

40 CFR 60.482-2(d)(6)(ii)

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.

40 CFR 60.482-2(d)(6)(iii)

(iii) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 CFR 60.482-2(e)

(e) Any pump that is designated, as described in §60.486(e)(1) and (2), for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of the section if the pump:

[§60.482-2(e) introductory text amended at 65 FR 61762, Oct. 17, 2000]

40 CFR 60.482-2(e)(1)

(1) Has no externally actuated shaft penetrating the pump housing,

40 CFR 60.482-2(e)(2)

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less

than 500 ppm above background as measured by the methods specified in §60.485(c), and

40 CFR 60.482-2(e)(3)

(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

[§60.482-2(e)(3) amended at 65 FR 61762, Oct. 17, 2000]
40 CFR 60.482-2(f)

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §60.482-10, it is exempt from paragraphs (a) through (e) of this section.

[§60.482-2(f) amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

40 CFR 60.482-2(g)

(g) Any pump that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if:

40 CFR 60.482-2(g)(1)

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and

40 CFR 60.482-2(g)(2)

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected.

[§60.482-2(g) added at 65 FR 78276, Dec. 14, 2000]

40 CFR 60.482-2(h)

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (a)(2) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

[§60.482-2(h) added at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-3 Standards: Compressors.

40 CFR 60.482-3(a)

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in §60.482-1(c) and paragraph (h) and (i) of this section.

40 CFR 60.482-3(b)

(b) Each compressor seal system as required in paragraph (a) shall be:

40 CFR 60.482-3(b)(1)

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

40 CFR 60.482-3(b)(2)

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of §60.482-10; or

[§60.482-3(b)(2) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-3(b)(3)

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

40 CFR 60.482-3(c)

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

40 CFR 60.482-3(d)

(d) Each barrier fluid system as described in paragraph (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

40 CFR 60.482-3(e)

(e) (1) Each sensor as required in paragraph (d) shall be checked daily or shall be equipped with an audible alarm.

40 CFR 60.482-3(e)(2)

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

40 CFR 60.482-3(f)

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (e)(2), a leak is detected.

40 CFR 60.482-3(g)

(g) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.

40 CFR 60.482-3(g)(2)

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 CFR 60.482-3(h)

(h) A compressor is exempt from the requirements of paragraphs (a) and (b), if it is equipped with a closed vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of §60.482-10, except as provided in paragraph (i) of this section.

[§60.482-3(h) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-3(i)

(i) Any compressor that is designated, as described in §60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a)-(h) if the compressor:

40 CFR 60.482-3(i)(1)

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §60.485(c); and

40 CFR 60.482-3(i)(2)

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

[§60.482-3(i)(2) amended at 65 FR 61762, Oct. 17, 2000]

40 CFR 60.482-3(j)

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of §60.14 or §60.15 is exempt from §60.482(a), (b), (c), (d), (e), and (h), provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of paragraphs (a) through (e) and (h) of this section.

40 CFR 60.482-4 Standards: Pressure relief devices in gas/vapor service.

40 CFR 60.482-4(a)

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).

40 CFR 60.482-4(b)

(b) (1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar

days after the pressure release, except as provided in §60.482-9.

40 CFR 60.482-4(b)(2)

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

40 CFR 60.482-4(c)

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482-10 is exempted from the requirements of paragraphs (a) and (b) of this section.

[§60.482-4(c) amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-4(d)

(d) (1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

40 CFR 60.482-4(d)(2)

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9.

[§60.482-4(d) added at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-5 Standards: Sampling connection systems.

[§60.482-5 revised at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-5(a)

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in §60.482-1(c). Gases displaced during

filling of the sample container are not required to be collected or captured.

[§60.482-5(a) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-5(b)

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section:

[§60.482-5(b) introductory text amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-5(b)(1)

(1) Return the purged process fluid directly to the process line; or

40 CFR 60.482-5(b)(2)

(2) Collect and recycle the purged process fluid to a process; or

40 CFR 60.482-5(b)(3)

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482-10; or

[§60.482-5(b)(3) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-5(b)(4)

(4) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

40 CFR 60.482-5(b)(4)(i)

(i) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

40 CFR 60.482-5(b)(4)(ii)

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

40 CFR 60.482-5(b)(4)(iii)

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

[§60.482-5(b)(4) added at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-5(c)

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

[§60.482-5(c) amended at 65 FR 61762, Oct. 17, 2000]

40 CFR 60.482-6 Standards: Open-ended valves or lines.

40 CFR 60.482-6(a)

(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c).

40 CFR 60.482-6(a)(2)

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

40 CFR 60.482-6(b)

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

40 CFR 60.482-6(c)

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times.

40 CFR 60.482-6(d)

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a

process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

[§60.482-6(d) added at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-6(e)

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section.

[§60.482-6(e) added at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-7 Standards: Valves in gas/vapor service in light liquid service.

40 CFR 60.482-7(a)

(a) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e), except as provided in paragraphs (f), (g), and (h), §60.483-1, 2, and §60.482-1(c).

40 CFR 60.482-7(b)

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

40 CFR 60.482-7(c)

(c) (1) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

40 CFR 60.482-7(c)(2)

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

40 CFR 60.482-7(d)

(d) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days

after the leak is detected, except as provided in §60.482-9.

40 CFR 60.482-7(d)(2)

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 CFR 60.482-7(e)

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

40 CFR 60.482-7(e)(1)

(1) Tightening of bonnet bolts;

40 CFR 60.482-7(e)(2)

(2) Replacement of bonnet bolts;

40 CFR 60.482-7(e)(3)

(3) Tightening of packing gland nuts;

40 CFR 60.482-7(e)(4)

(4) Injection of lubricant into lubricated packing.

40 CFR 60.482-7(f)

(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

40 CFR 60.482-7(f)(1)

(1) Has no external actuating mechanism in contact with the process fluid,

40 CFR 60.482-7(f)(2)

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and

40 CFR 60.482-7(f)(3)

(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.

[§60.482-7(f)(3) amended at 65 FR 61762, Oct. 17, 2000]

40 CFR 60.482-7(g)

(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

40 CFR 60.482-7(g)(1)

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

40 CFR 60.482-7(g)(2)

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

40 CFR 60.482-7(h)

(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

40 CFR 60.482-7(h)(1)

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

40 CFR 60.482-7(h)(2)

(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

40 CFR 60.482-7(h)(3)

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

40 CFR 60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

[§60.482-8(a) heading amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-8(a)

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

40 CFR 60.482-8(a)(1)

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

40 CFR 60.482-8(a)(2)

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

[§60.482-8(a) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-8(b)

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

40 CFR 60.482-8(c)

(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.

40 CFR 60.482-8(c)(2)

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 CFR 60.482-8(d)

(d) First attempts at repair include, but are not limited to, the best practices described under §60.482-7(e).

40 CFR 60.482-9 Standards: Delay of repair.

40 CFR 60.482-9(a)

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

[§60.482-9(a) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-9(b)

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

40 CFR 60.482-9(c)

(c) Delay of repair for valves will be allowed if:

40 CFR 60.482-9(c)(1)

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

40 CFR 60.482-9(c)(2)

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482-10.

40 CFR 60.482-9(d)

(d) Delay of repair for pumps will be allowed if:

40 CFR 60.482-9(d)(1)

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

40 CFR 60.482-9(d)(2)

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

40 CFR 60.482-9(e)

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

40 CFR 60.482-10 Standards: Closed vent systems and control devices.

40 CFR 60.482-10(a)

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

40 CFR 60.482-10(b)

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

[§60.482-10(b) amended at 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-10(c)

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C.

[§60.482-10(c) amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78277, Dec. 14, 2000]

40 CFR 60.482-10(d)

(d) Flares used to comply with this subpart shall comply with the requirements of §60.18.

40 CFR 60.482-10(e)

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

40 CFR 60.482-10(f)

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

40 CFR 60.482-10(f)(1)

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

40 CFR 60.482-10(f)(1)(i)

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

40 CFR 60.482-10(f)(1)(ii)

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

40 CFR 60.482-10(f)(2)

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

40 CFR 60.482-10(f)(2)(i)

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

40 CFR 60.482-10(f)(2)(ii)

(ii) Conduct annual inspections according to the procedures in §60.485(b).

[§60.482-10(f) revised at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(g)

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

40 CFR 60.482-10(g)(1)

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

40 CFR 60.482-10(g)(2)

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

[§60.482-10(g) revised at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(h)

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

[§60.482-10(h) added at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(i)

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

[§60.482-10(i) added at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(j)

(j) Any parts of the closed vent system that are designated, as described in paragraph (l)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

40 CFR 60.482-10(j)(1)

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

40 CFR 60.482-10(j)(2)

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

[§60.482-10(j) added at 60 FR 43257, Aug. 18, 1995; amended at 61 FR 29878, June 12, 1996]

40 CFR 60.482-10(k)

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(3) of this section:

40 CFR 60.482-10(k)(1)

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

40 CFR 60.482-10(k)(2)

(2) The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

40 CFR 60.482-10(k)(3)

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

[§60.482-10(k) added at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(l)

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

40 CFR 60.482-10(l)(1)

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

40 CFR 60.482-10(l)(2)

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

40 CFR 60.482-10(l)(3)

(3) For each inspection during which a leak is detected, a record of the information specified in §60.486(c).

40 CFR 60.482-10(l)(4)

(4) For each inspection conducted in accordance with §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

40 CFR 60.482-10(l)(5)

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

[§60.482-10(l) added at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.482-10(m)

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

[§60.482-10(m) added at 60 FR 43257, Aug. 18, 1995]

40 CFR 60.483-1 Alternative standards for valves—allowable percentage of valves leaking.

40 CFR 60.483-1(a)

(a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

40 CFR 60.483-1(b)

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

40 CFR 60.483-1(b)(1)

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487(d).

[§60.483-1(b)(1) amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

40 CFR 60.483-1(b)(2)

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

40 CFR 60.483-1(b)(3)

(3) If a valve leak is detected, it shall be repaired in accordance with §60.482-7(d) and (e).

40 CFR 60.483-1(c)

(c) Performance tests shall be conducted in the following manner:

40 CFR 60.483-1(c)(1)

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in §60.485(b).

40 CFR 60.483-1(c)(2)

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

40 CFR 60.483-1(c)(3)

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

40 CFR 60.483-1(d)

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

40 CFR 60.483-2 Alternative standards for valves-skip period leak detection and repair.

40 CFR 60.483-2(a)

(a) (1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

40 CFR 60.483-2(a)(2)

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in §60.487(d).

[§60.483-2(a)(2) amended at 65 FR 61762, Oct. 17, 2000; 65 FR 78278, Dec. 14, 2000]

40 CFR 60.483-2(b)

(b) (1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in §60.482-7.

40 CFR 60.483-2(b)(2)

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

40 CFR 60.483-2(b)(3)

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

40 CFR 60.483-2(b)(4)

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in §60.482-7 but can again elect to use this section.

40 CFR 60.483-2(b)(5)

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section.

40 CFR 60.483-2(b)(6)

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

40 CFR 60.484 Equivalence of means of emission limitation.

40 CFR 60.484(a)

(a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

40 CFR 60.484(b)

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

40 CFR 60.484(b)(1)

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and

verifying test data to demonstrate equivalence of means of emission limitation.

40 CFR 60.484(b)(2)

(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

40 CFR 60.484(b)(3)

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

40 CFR 60.484(c)

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

40 CFR 60.484(c)(1)

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

40 CFR 60.484(c)(2)

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

40 CFR 60.484(c)(3)

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

40 CFR 60.484(c)(4)

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

40 CFR 60.484(c)(5)

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4).

40 CFR 60.484(c)(6)

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

40 CFR 60.484(d)

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

40 CFR 60.484(e)

(e) (1) After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

40 CFR 60.484(e)(2)

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER.

40 CFR 60.484(e)(3)

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

40 CFR 60.484(f)

(f) (1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means

of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

40 CFR 60.484(f)(2)

(2) The Administrator will make an equivalence determination according to the provisions of paragraphs (b), (c), (d), and (e) of this section.

[§60.484(f)(2) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485 Test methods and procedures.

40 CFR 60.485(a)

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

40 CFR 60.485(b)

(b) The owner or operator shall determine compliance with the standards in §§60.482, 60.483, and 60.484 as follows:

40 CFR 60.485(b)(1)

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

40 CFR 60.485(b)(1)(i)

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

40 CFR 60.485(b)(1)(ii)

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

40 CFR 60.485(c)

(c) The owner or operator shall determine compliance with the no detectable emission standards in §§60.482-2(e),

60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

40 CFR 60.485(c)(1)

(1) The requirements of paragraph (b) shall apply.

40 CFR 60.485(c)(2)

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

[§60.485(c)(2) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(d)

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

[§60.485(d) introductory text amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(d)(1)

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference-see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

[§60.485(d)(1) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(d)(2)

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

40 CFR 60.485(d)(3)

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

40 CFR 60.485(e)

(e) The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

40 CFR 60.485(e)(1)

(1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20°C (1.2 in. H_20 at 68°F. Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference-see §60.17) shall be used to determine the vapor pressures.

[§60.485(e)(1) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(e)(2)

(2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20°C (1.2 in. H_20 at 68°F is equal to or greater than 20 percent by weight.

[§60.485(e)(2) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(e)(3)

(3) The fluid is a liquid at operating conditions.

40 CFR 60.485(f)

(f) Samples used in conjunction with paragraphs (d), (e), and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

[§60.485(f) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(g)

(g) The owner or operator shall determine compliance with the standards of flares as follows:

40 CFR 60.485(g)(1)

(1) Method 22 shall be used to determine visible emissions.

40 CFR 60.485(g)(2)

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

40 CFR 60.485(g)(3)

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

"Equation"

Where:

V_{max} = Maximum permitted velocity, m/sec (ft/sec)

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K_2 = 0.7084 m ^{4}/(MJ-sec) (metric units)

= 0.087 ft ^{4}/(Btu-sec) (English units)

[§60.485(g)(3) revised at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(g)(4)

(4) The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

"Equation"

Where:

K = Conversion constant, 1.740×10^7 (g-mole)(MJ)/ (ppm-scm-kcal) (metric units)

= 4.674×10^8 [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component "i," ppm

H_i = Net heat of combustion of sample component "i" at 25°C and 760 mm Hg (77°F and 14.7 psi), kcal/g-mole

[§60.485(g)(4) revised at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(g)(5)

(5) Method 18 and ASTM D 2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference-see §60.17) shall be used to determine the concentration of sample component "i."

[§60.485(g)(5) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(g)(6)

(6) ASTM D 2382-76 or 88 or D4809-95 (incorporated by reference-see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

[§60.485(g)(6) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.485(g)(7)

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

40 CFR 60.486 Recordkeeping requirements.

40 CFR 60.486(a)

(a) (1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

40 CFR 60.486(a)(2)

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with

the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

40 CFR 60.486(b)

(b) When each leak is detected as specified in §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

40 CFR 60.486(b)(1)

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

40 CFR 60.486(b)(2)

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482-7(c) and no leak has been detected during those 2 months.

40 CFR 60.486(b)(3)

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

40 CFR 60.486(c)

(c) When each leak is detected as specified in §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

40 CFR 60.486(c)(1)

(1) The instrument and operator identification numbers and the equipment identification number.

40 CFR 60.486(c)(2)

(2) The date the leak was detected and the dates of each attempt to repair the leak.

40 CFR 60.486(c)(3)

(3) Repair methods applied in each attempt to repair the leak.

40 CFR 60.486(c)(4)

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

40 CFR 60.486(c)(5)

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

40 CFR 60.486(c)(6)

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

40 CFR 60.486(c)(7)

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

40 CFR 60.486(c)(8)

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

[§60.486(c)(8) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.486(c)(9)

(9) The date of successful repair of the leak.

40 CFR 60.486(d)

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in §60.482-10 shall be recorded and kept in a readily accessible location:

40 CFR 60.486(d)(1)

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

40 CFR 60.486(d)(2)

(2) The dates and descriptions of any changes in the design specifications.

40 CFR 60.486(d)(3)

(3) A description of the parameter or parameters monitored, as required in §60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

40 CFR 60.486(d)(4)

(4) Periods when the closed vent systems and control devices required in §§60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

40 CFR 60.486(d)(5)

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482-2, 60.482-3, 60.482-4, and 60.482-5.

40 CFR 60.486(e)

(e) The following information pertaining to all equipment subject to the requirements in §§60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

40 CFR 60.486(e)(1)

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

40 CFR 60.486(e)(2)

(2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482-2(e), 60.482-3(i) and 60.482-7(f).

40 CFR 60.486(e)(2)(ii)

(ii) The designation of equipment as subject to the requirements of §60.482-2(e), §60.482-3(i), or §60.482-7(f) shall be signed by the owner or operator.

40 CFR 60.486(e)(3)

(3) A list of equipment identification numbers for pressure relief devices required to comply with §60.482-4.

40 CFR 60.486(e)(4)

(4) (i) The dates of each compliance test as required in §§60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

40 CFR 60.486(e)(4)(ii)

(ii) The background level measured during each compliance test.

40 CFR 60.486(e)(4)(iii)

(iii) The maximum instrument reading measured at the equipment during each compliance test.

40 CFR 60.486(e)(5)

(5) A list of identification numbers for equipment in vacuum service.

40 CFR 60.486(f)

(f) The following information pertaining to all valves subject to the requirements of §60.482-7(g) and (h) and to all pumps subject to the requirements of §60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

[§60.486(f) introductory text amended at 65 FR 78278, Dec. 14, 2000]

40 CFR 60.486(f)(1)

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

[§60.486(f)(1) amended at 65 FR 78278, Dec. 14, 2000]

40 CFR 60.486(f)(2)

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for

each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each value.

40 CFR 60.486(g)

(g) The following information shall be recorded for valves complying with §60.483-2:

40 CFR 60.486(g)(1)

(1) A schedule of monitoring.

40 CFR 60.486(g)(2)

(2) The percent of valves found leaking during each monitoring period.

40 CFR 60.486(h)

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

40 CFR 60.486(h)(1)

(1) Design criterion required in §§60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

40 CFR 60.486(h)(2)

(2) Any changes to this criterion and the reasons for the changes.

40 CFR 60.486(i)

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in §60.480(d):

40 CFR 60.486(i)(1)

(1) An analysis demonstrating the design capacity of the affected facility,

40 CFR 60.486(i)(2)

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

40 CFR 60.486(i)(3)

(3) An analysis demonstrating that equipment is not in VOC service.

40 CFR 60.486(j)

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

40 CFR 60.486(k)

(k) The provisions of §60.7(b) and (d) do not apply to affected facilities subject to this subpart.

(Approved by the Office of Management and Budget under control number 2060-0012)

40 CFR 60.487 Reporting requirements.

40 CFR 60.487(a)

(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial start up date.

40 CFR 60.487(b)

(b) The initial semiannual report to the Administrator shall include the following information:

40 CFR 60.487(b)(1)

(1) Process unit identification.

40 CFR 60.487(b)(2)

(2) Number of valves subject to the requirements of §60.482-7, excluding those valves designated for no detectable emissions under the provisions of §60.482-7(f).

40 CFR 60.487(b)(3)

(3) Number of pumps subject to the requirements of §60.482-2, excluding those pumps designated for no detectable emissions under the provisions of §60.482-2(e) and those pumps complying with §60.482-2(f).

40 CFR 60.487(b)(4)

(4) Number of compressors subject to the requirements of §60.482-3, excluding those compressors designated for no detectable emissions under the provisions of §60.482-3(i) and those compressors complying with §60.482-3(h).

40 CFR 60.487(c)

(c) All semiannual reports to the Administrator shall include the following information, summarized from the information in §60.486:

40 CFR 60.487(c)(1)

(1) Process unit identification.

40 CFR 60.487(c)(2)

(2) For each month during the semiannual reporting period.

40 CFR 60.487(c)(2)(i)

(i) Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483-2,

40 CFR 60.487(c)(2)(ii)

(ii) Number of valves for which leaks were not repaired as required in §60.482-7(d)(1),

40 CFR 60.487(c)(2)(iii)

(iii) Number of pumps for which leaks were detected as described in §60.482-2(b) and (d)(6)(i),

40 CFR 60.487(c)(2)(iv)

(iv) Number of pumps for which leaks were not repaired as required in §60.482-2(c)(1) and (d)(6)(ii),

40 CFR 60.487(c)(2)(v)

(v) Number of compressors for which leaks were detected as described in §60.482-3(f),

40 CFR 60.487(c)(2)(vi)

(vi) Number of compressors for which leaks were not repaired as required in §60.482-3(g)(1), and

40 CFR 60.487(c)(2)(vii)

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

40 CFR 60.487(c)(3)

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

40 CFR 60.487(c)(4)

(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

40 CFR 60.487(d)

(d) An owner or operator electing to comply with the provisions of §§60.483-1 or 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

[§60.487(d) amended at 65 FR 61763, Oct. 17, 2000]

40 CFR 60.487(e)

(e) An owner or operator shall report the results of all performance tests in accordance with §60.8 of the General Provisions. The provisions of §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

40 CFR 60.487(f)

(f) The requirements of paragraphs (a) through (c) of this section remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the

State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State.

40 CFR 60.488 Reconstruction.

For the purposes of this subpart:

40 CFR 60.488(a)

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under §60.15: pump seals, nuts and bolts, rupture disks, and packings.

40 CFR 60.488(b)

(b) Under §60.15, the fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in §60.488(a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

40 CFR 60.489 List of chemicals produced by affected facilities.

40 CFR 60.489(a)

(a) The following chemicals are produced, as intermediates or final products, by process units covered under this subpart. The applicability date for process units producing one or more of these chemicals is January 5, 1981.

CAS No.[a]	Chemical
105-57-7	Acetal
75-07-0	Acetaldehyde
107-89-1	Acetaldol
60-35-5	Acetamide
103-84-4	Acetanilide
64-19-7	Acetic acid
108-24-7	Acetic anhydride
67-64-1	Acetone
75-86-5	Acetone cyanohydrin
75-05-8	Acetonitrile
98-86-2	Acetophenone
75-36-5	Acetyl chloride
74-86-2	Acetylene
107-02-8	Acrolein
79-06-1	Acrylamide
79-10-7	Acrylic acid
107-13-1	Acrylonitrile
124-04-9	Adipic acid|
111-69-3	Adiponitrile
(b)	Alkyl naphthalenes
107-18-6	Allyl alcohol
107-05-1	Allyl chloride
1321-11-5	Aminobenzoic acid
111-41-1	Aminoethylethanolamine
123-30-8	p-Aminophenol
628-63-7	Amyl acetates
123-92-2,	
71-41-0 [c]	Amyl alcohols
110-58-7	Amyl amine
543-59-9	Amyl chloride
110-66-7 [c]	Amyl mercaptans
1322-06-1	Amyl phenol
62-53-3	Aniline
142-04-1	Aniline hydrochloride
29191-52-4	Anisidine
100-66-3	Anisole
118-92-3	Anthranilic acid
84-65-1	Anthraquinone
100-52-7	Benzaldehyde
55-21-0	Benzamide
71-43-2	Benzene
98-48-6	Benzenedisulfonic acid
98-11-3	Benzenesulfonic acid
134-81-6	Benzil
76-93-7	Benzilic acid
65-85-0	Benzoic acid

CAS No.[a]	Chemical
119-53-9	Benzoin
100-47-0	Benzonitrile
119-61-9	Benzophenone
98-07-7	Benzotrichloride
98-88-4	Benzoyl chloride
100-51-6	Benzyl alcohol
100-46-9	Benzylamine
120-51-4	Benzyl benzoate
100-44-7	Benzyl chloride
98-87-3	Benzyl dichloride
92-52-4	Biphenyl
80-05-7	Bisphenol A
10-86-1	Bromobenzene
27497-51-4	Bromonaphthalene
106-99-0	Butadiene
106-98-9	1-butene
123-86-4	n-butyl acetate
141-32-2	n-butyl acrylate
71-36-3	n-butyl alcohol
78-92-2	s-butyl alcohol
75-65-0	t-butyl alcohol
109-73-9	n-butylamine
13952-84-6	s-butylamine
75-64-9	t-butylamine
98-73-7	p-tert-butyl benzoic acid
107-88-0	1,3-butylene glycol
123-72-8	n-butyraldehyde
107-92-6	Butyric acid
106-31-0	Butyric anhydride
109-74-0	Butyronitrile
105-60-2	Caprolactam
75-1-50	Carbon disulfide
558-13-4	Carbon tetrabromide
56-23-5	Carbon tetrachloride
9004-35-7	Cellulose acetate
79-11-8	Chloroacetic acid
108-42-9	m-chloroaniline
95-51-2	o-chloroaniline
106-47-8	p-chloroaniline
35913-09-8	Chlorobenzaldehyde
108-90-7	Chlorobenzene
118-91-2, 535-80-8, 74-11-3 [c]	Chlorobenzoic acid
2136-81-4, 2136-89-2,	Chlorobenzotrichloride

CAS No.[a]	Chemical
5216-25-1 [c].	
1321-03-5	Chlorobenzoyl chloride
25497-29-4	Chlorodifluoromethane
75-45-6	Chlorodifluoroethane
67-66-3	Chloroform
25586-43-0	Chloronaphthalene
88-73-3	o-chloronitrobenzene
100-00-5	p-chloronitrobenzene
25167-80-0	Chlorophenols
126-99-8	Chloroprene
7790-94-5	Chlorosulfonic acid
108-41-8	m-chlorotoluene
95-49-8	o-chlorotoluene
106-43-4	p-chlorotoluene
75-72-9	Chlorotrifluoromethane
108-39-4	m-cresol
95-48-7	o-cresol
106-44-5	p-cresol
1319-77-3	Mixed cresols
1319-77-3	Cresylic acid
4170-30-0	Crotonaldehyde
3724-65-0	Crotonic acid
98-82-8	Cumene
80-15-9	Cumene hydroperoxide
372-09-8	Cyanoacetic acid
506-77-4	Cyanogen chloride
108-80-5	Cyanuric acid
108-77-0	Cyanuric chloride
110-82-7	Cyclohexane
108-93-0	Cyclohexanol
108-94-1	Cyclohexanone
110-83-8	Cyclohexene
108-91-8	Cyclohexylamine
111-78-4	Cyclooctadiene
112-30-1	Decanol
123-42-2	Diacetone alcohol
27576-04-1	Diaminobenzoic acid
95-76-1,	Dichloroaniline
95-82-9,	
554-00-7, 608-27-5,	
608-31-1,	
626-43-7,	
27134-27-6,	
57311-92-9 [c].	
541-73-1	m-dichlorobenzene
95-50-1	o-dichlorobenzene

CAS No.[a]	Chemical
106-46-7	p-dichlorobenzene
75-71-8	Dichlorodifluoromethane
111-44-4	Dichloroethyl ether
107-06-2	1,2-dichloroethane (EDC)
96-23-1	Dichlorohydrin
26952-23-8	Dichloropropene

CAS No.[i]a	Chemical
101-83-7	Dicyclohexylamine
109-89-7	Diethylamine
111-46-6	Diethylene glycol
112-36-7	Diethylene glycol diethyl ether
111-96-6	Diethylene glycol dimethyl ether
112-34-5	Diethylene glycol monobutyl ether
124-17-4	Diethylene glycol monobutyl ether acetate
111-90-0	Diethylene glycol monoethyl ether
112-15-2	Diethylene glycol monoethyl ether acetate
111-77-3	Diethylene glycol monomethyl ether
64-67-5	Diethyl sulfate
75-37-6	Difluoroethane
25167-70-8	Diisobutylene
26761-40-0	Diisodecyl phthalate
27554-26-3	Diisooctyl phthalate
674-82-8	Diketene
124-40-3	Dimethylamine
121-69-7	N,N-dimethylaniline
115-10-6	N,N-dimethyl ether
68-12-2	N,N-dimethylformamide
57-14-7	Dimethylhydrazine
77-78-1	Dimethyl sulfate
75-18-3	Dimethyl sulfide
67-68-5	Dimethyl sulfoxide
120-61-6	Dimethyl terephthalate
99-34-3	3,5-dinitrobenzoic acid
51-28-5	Dinitrophenol
25321-14-6	Dinitrotoluene
123-91-1	Dioxane
646-06-0	Dioxilane
122-39-4	Diphenylamine

[i] a CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

101-84-8	Diphenyl oxide
102-08-9	Diphenyl thiourea
25265-71-8	Dipropylene glycol
25378-22-7	Dodecene
28675-17-4	Dodecylaniline
27193-86-8	Dodecylphenol
106-89-8	Epichlorohydrin
64-17-5	Ethanol
141-43-5 [ii]c	Ethanolamines
141-78-6	Ethyl acetate
141-97-9	Ethyl acetoacetate
140-88-5	Ethyl acrylate
75-04-7	Ethylamine
100-41-4	Ethylbenzene
74-96-4	Ethyl bromide
9004-57-3	Ethylcellulose
75-00-3	Ethyl chloride
105-39-5	Ethyl chloroacetate
105-56-6	Ethylcyanoacetate
74-85-1	Ethylene
96-49-1	Ethylene carbonate
107-07-3	Ethylene chlorohydrin
107-15-3	Ethylenediamine
106-93-4	Ethylene dibromide
107-21-1	Ethylene glycol
111-55-7	Ethylene glycol diacetate
110-71-4	Ethylene glycol dimethyl ether
111-76-2	Ethylene glycol monobutyl ether
112-07-2	Ethylene glycol monobutyl ether acetate
110-80-5	Ethylene glycol monoethyl ether
111-15-9	Ethylene glycol monethyl ether acetate
109-86-4	Ethylene glycol monomethyl ether
110-49-6	Ethylene glycol monomethyl ether acetate
122-99-6	Ethylene glycol monophenyl ether
2807-30-9	Ethylene glycol monopropyl ether
75-21-8	Ethylene oxide
60-29-7	Ethyl ether
104-76-7	2-ethylhexanol
122-51-0	Ethyl orthoformate
95-92-1	Ethyl oxalate
41892-71-1	Ethyl sodium oxalacetate
50-00-0	Formaldehyde
75-12-7	Formamide
64-18-6	Formic acid
110-17-8	Fumaric acid
98-01-1	Furfural

[ii] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

56-81-5	Glycerol
26545-73-7	Glycerol dichlorohydrin
25791-96-2	Glycerol triether
56-40-6	Glycine
107-22-2	Glyoxal
118-74-1	Hexachlorobenzene
67-72-1	Hexachloroethane
36653-82-4	Hexadecyl alcohol
124-09-4	Hexamethylenediamine
629-11-8	Hexamethylene glycol
100-97-0	Hexamethylenetetramine
74-90-8	Hydrogen cyanide
123-31-9	Hydroquinone
99-96-7	p-hydroxybenzoic acid
26760-64-5	Isoamylene
78-83-1	Isobutanol
110-19-0	Isobutyl acetate
115-11-7	Isobutylene
78-84-2	Isobutyraldehyde
79-31-2	Isobutyric acid
25339-17-7	Isodecanol
26952-21-6	Isooctyl alcohol
78-78-4	Isopentane
78-59-1	Isophorone
121-91-5	Isophthalic acid
78-79-5	Isoprene
67-63-0	Isopropanol
108-21-4	Isopropyl acetate
75-31-0	Isopropylamine
75-29-6	Isopropyl chloride
25168-06-3	Isopropylphenol
463-51-4	Ketene
[iii]b.	Linear alkyl sulfonate
123-01-3	Linear alkylbenzene (linear dodecylbenzene)
110-16-7	Maleic acid
108-31-6	Maleic anhydride
6915-15-7	Malic acid
141-79-7	Mesityl oxide
121-47-1	Metanilic acid
79-41-4	Methacrylic acid
563-47-3	Methallyl chloride
67-56-1	Methanol
79-20-9	Methyl acetate
105-45-3	Methyl acetoacetate
74-89-5	Methylamine
100-61-8	n-methylaniline
74-83-9	Methyl bromide

[iii] b No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

37365-71-2	Methyl butynol
74-87-3	Methyl chloride
108-87-2	Methylcyclohexane
1331-22-2	Methylcyclohexanone
75-09-2	Methylene chloride
101-77-9	Methylene dianiline
101-68-8	Methylene diphenyl diisocyanate
78-93-3	Methyl ethyl ketone
107-31-3	Methyl formate
108-11-2	Methyl isobutyl carbinol
108-10-1	Methyl isobutyl ketone
80-62-6	Methyl methacrylate
77-75-8	Methylpentynol
98-83-9	a-methylstyrene
110-91-8	Morpholine

CAS No.[iv]a	Chemical
85-47-2	a-naphthalene sulfonic acid
120-18-3	b-naphthalene sulfonic acid
90-15-3	a-naphthol
135-19-3	b-naphthol
75-98-9	Neopentanoic acid
88-74-4	o-nitroaniline
100-01-6	p-nitroaniline
91-23-6	o-nitroanisole
100-17-4	p-nitroanisole
98-95-3	Nitrobenzene
27178-83-2 [v]c	Nitrobenzoic acid (o,m, and p)
79-24-3	Nitroethane
75-52-5	Nitromethane
88-75-5	2-Nitrophenol
25322-01-4	Nitropropane
1321-12-6	Nitrotoluene
27215-95-8	Nonene
25154-52-3	Nonylphenol
27193-28-8	Octylphenol
123-63-7	Paraldehyde

[iv]a CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standard do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[v]c CAS numbers from some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

115-77-5	Pentaerythritol
109-66-0	n-pentane
109-67-1	1-pentene
127-18-4	Perchloroethylene
594-42-3	Perchloromethyl mercaptan
94-70-2	o-phenetidine
156-43-4	p-phenetidine
108-95-2	Phenol
98-67-9, 585-38-6, 609-46-1, 1333-39-7[vi] c	Phenolsulfonic acids
91-40-7	Phenyl anthranilic acid
([vii]b)	Phenylenediamine
75-44-5	Phosgene
85-44-9	Phthalic anhydride
85-41-6	Phthalimide
108-99-6	b-picoline
110-85-0	Piperazine
9003-29-6, 25036-29-7 [viii]c	Polybutenes
25322-68-3	Polyethylene glycol
25322-69-4	Polypropylene glycol
123-38-6	Propionaldehyde
79-09-4	Propionic acid
71-23-8	n-propyl alcohol
107-10-8	Propylamine
540-54-5	Propyl chloride
115-07-1	Propylene
127-00-4	Propylene chlorohydrin
78-87-5	Propylene dichloride
57-55-6	Propylene glycol
75-56-9	Propylene oxide
110-86-1	Pyridine
106-51-4	Quinone
108-46-3	Resorcinol
27138-57-4	Resorcylic acid
69-72-7	Salicylic acid

[vi] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[vii] b No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

[viii] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

127-09-3	Sodium acetate
532-32-1	Sodium benzoate
9004-32-4	Sodium carboxymethyl cellulose
3926-62-3	Sodium chloroacetate
141-53-7	Sodium formate
139-02-6	Sodium phenate
110-44-1	Sorbic acid
100-42-5	Styrene
110-15-6	Succinic acid
110-61-2	Succinonitrile
121-57-3	Sulfanilic acid
26-33-0	Sulfolane
1401-55-4	Tannic acid
100-21-0	Terephthalic acid
79-34-5 [ix]c	Tetrachloroethanes
117-08-8	Tetrachlorophthalic anhydride
78-00-2	Tetraethyl lead
119-64-2	Tetrahydronaphthalene
85-43-8	Tetrahydrophthalic anhydride
75-74-1	Tetramethyl lead
110-60-1	Tetramethylenediamine
110-18-9	Tetramethylethylenediamine
108-88-3	Toluene
95-80-7	Toluene-2,4-diamine
584-84-9	Toluene-2,4-diisocyanate
26471-62-5	Toluene diisocyanates (mixture)
1333-07-9	Toluenesulfonamide
104-15-4 [x]c	Toluenesulfonic acids
98-59-9	Toluenesulfonyl chloride
26915-12-8	Toluidines
87-61-6, 108-70-3, 120-82-1 [xi]c	Trichlorobenzenes
71-55-6	1,1,1-trichloroethane
79-00-5	1,1,2-trichloroethane
79-01-6	Trichloroethylene

[ix] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[x] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[xi] c CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

75-69-4	Trichlorofluoromethane
96-18-4	1,2,3-trichloropropane
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane
121-44-8	Triethylamine
112-27-6	Triethylene glycol
112-49-2	Triethylene glycol dimethyl ether
7756-94-7	Triisobutylene
75-50-3	Trimethylamine
57-13-6	Urea
108-05-4	Vinyl acetate
75-01-4	Vinyl chloride
75-35-4	Vinylidene chloride
25013-15-4	Vinyl toluene
1330-20-7	Xylenes (mixed)
95-47-6	o-xylene
106-42-3	p-xylene
1300-71-6	Xylenol
1300-73-8	Xylidine

[a] CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[b] No CAS number(s) have been assigned to this chemical, its isomers, or mixtures containing these chemicals.

[c] CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[§60.489 table revised at 65 FR 61763, Oct. 17, 2000]

Subpart NNN—Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

40 CFR 60.660 Applicability and designation of affected facility.

40 CFR 60.660(a)

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b) of this section that is part of a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c).

40 CFR 60.660(b)

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after December 30, 1983:

40 CFR 60.660(b)(1)

(1) Each distillation unit not discharging its vent stream into a recovery system.

40 CFR 60.660(b)(2)

(2) Each combination of a distillation unit and the recovery system into which its vent stream is discharged.

40 CFR 60.660(b)(3)

(3) Each combination of two or more distillation units and the common recovery system into which their vent streams are discharged.

40 CFR 60.660(c)

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

40 CFR 60.660(c)(1)

(1) Any distillation unit operating as part of a process unit which produces coal tar or beverage alcohols, or which uses, contains, and produces no VOC is not an affected facility.

40 CFR 60.660(c)(2)

(2) Any distillation unit that is subject to the provisions of Subpart DDD is not an affected facility.

40 CFR 60.660(c)(3)

(3) Any distillation unit that is designed and operated as a batch operation is not an affected facility.

40 CFR 60.660(c)(4)

(4) Each affected facility that has a total resource effectiveness (TRE) index value greater than 8.0 is exempt from all provisions of this subpart except for §§60.662; 60.664(d), (e), and (f); and 60.665 (h) and (l).

40 CFR 60.660(c)(5)

(5) Each affected facility in a process unit with a total design capacity for all chemicals produced within that unit of less than one gigagram per year is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in paragraphs (j), (l)(6), and (n) of §60.665.

40 CFR 60.660(c)(6)

(6) Each affected facility operated with a vent stream flow rate less than 0.008 scm/min is exempt from all provisions of this subpart except for the test method and procedure and the recordkeeping and reporting requirements in §60.664(g) and paragraph (i), (l)(5), and (o) of §60.665.

40 CFR 60.660(d)

(d) Alternative means of compliance.

40 CFR 60.660(d)(1)

(1) Option to comply with part 65. Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.662 through 60.665 and 60.668. The provisions of 40 CFR part 65 also satisfy the criteria of paragraphs (c)(4) and (6) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

40 CFR 60.660(d)(2)

(2) Part 60, subpart A. Owners or operators who choose to comply with 40 CFR part 65, subpart D, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

40 CFR 60.660(d)(3)

(3) Compliance date. Owners or operators who choose to comply with 40 CFR part 65, subpart D, at initial startup shall comply with paragraphs (d)(1) and (2) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first.

40 CFR 60.660(d)(4)

(4) Initial startup notification. Each owner or operator subject to the provisions of this subpart that chooses to comply with 40 CFR part 65, subpart D, at initial startup shall notify the Administrator of the specific provisions of 40 CFR 65.63(a)(1), (2), or (3), with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by 40 CFR 65.5(b).

[§60.660(d) added at 65 FR 78279, Dec. 14, 2000]

NOTE: The intent of these standards is to minimize the emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of total organic compounds (TOC), measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.

40 CFR 60.661 Definitions.

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60,

and the following terms shall have the specific meanings given them.

Batch distillation operation means a noncontinuous distillation operation in which a discrete quantity or batch of liquid feed is charged into a distillation unit and distilled at one time. After the initial charging of the liquid feed, no additional liquid is added during the distillation operation.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam.

By compound means by individual stream components, not carbon equivalents.

Continuous recorder means a data recording device recording an instantaneous data value at least once every 15 minutes.

Distillation operation means an operation separating one or more feed stream(s) into two or more exit stream(s), each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

Distillation unit means a device or vessel in which distillation operations occur, including all associated internals (such as trays or packing) and accessories (such as reboiler, condenser, vacuum pump, steam jet, etc.), plus any associated recovery system.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is present in a vent stream.

Halogenated vent stream means any vent stream determined to have a total concentration (by volume) of compounds containing halogens of 20 ppmv (by compound) or greater.

Incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that is heated to produce steam.

Process unit means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.667. A process unit can operate independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities.

Product means any compound or chemical listed in §60.667 that is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

Recovery device means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

Recovery system means an individual recovery device or series of such devices applied to the same vent stream.

Total organic compounds (TOC) means those compounds measured according to the procedures in §60.664(b)(4). For the purposes of measuring molar composition as required in §60.664(d)(2)(i); hourly emissions rate as required in §60.664(d)(5) and §60.664(e); and TOC concentration as required in §60.665(b)(4) and §60.665(g)(4), those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone are to be excluded. The compounds to be excluded are identified in Environmental Protection Agency's statements on ozone abatement policy for State Implementation Plans (SIP) revisions (42 FR 35314; 44 FR 32042; 45 FR 32424; 45 FR 48942).

TRE index value means a measure of the supplemental total resource requirement per unit reduction of TOC associated with an individual distillation vent stream, based on vent stream flow rate, emission rate of TOC net heating value, and corrosion properties (whether or not the vent stream is halogenated), as quantified by the equation given under §60.664(e).

Vent stream means any gas stream discharged directly from a distillation facility to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks including, but not limited to, pumps, compressors, and valves.

40 CFR 60.662 Standards.

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.664 is completed, but not later than 60 days after achieving the maximum production rate at which the

affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

40 CFR 60.662(a)

(a) Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

40 CFR 60.662(b)

(b) Combust the emissions in a flare that meets the requirements of §60.18; or

40 CFR 60.662(c)

(c) Maintain a TRE index value greater than 1.0 without use of VOC emission control devices.

40 CFR 60.663 Monitoring of emissions and operations.

40 CFR 60.663(a)

(a) The owner or operator of an affected facility that uses an incinerator to seek to comply with the TOC emission limit specified under §60.662(a) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

40 CFR 60.663(a)(1)

(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater.

40 CFR 60.663(a)(1)(i)

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.

40 CFR 60.663(a)(1)(ii)

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

40 CFR 60.663(a)(2)

(2) A flow indicator that provides a record of vent stream flow to the incinerator at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the inlet of each incinerator and before being joined with any other vent stream.

40 CFR 60.663(b)

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.662(b) shall install, calibrate, maintain and operate according to manufacturer's specifications the following equipment:

40 CFR 60.663(b)(1)

(1) A heat sensing device, such as a ultra-violet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame.

40 CFR 60.663(b)(2)

(2) A flow indicator that provides a record of vent stream flow to the flare at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each affected facility at a point closest to the flare and before being joined with any other vent stream.

40 CFR 60.663(c)

(c) The owner or operator of an affected facility that uses a boiler or process heater to seek to comply with §60.662(a) shall install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

[§60.663(c) introductory text amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.663(c)(1)

(1) A flow indicator that provides a record of vent stream flow to the boiler or process heater at least once every hour for each affected facility. The flow indicator shall be installed in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream.

40 CFR 60.663(c)(2)

(2) A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5°C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity.

40 CFR 60.663(d)

(d) Monitor and record the periods of operation of the boiler or process heater if the design heat input capacity of the boiler or process heater is 44 MW (150 million Btu/hr) or greater. The records must be readily available for inspection.

[Former §60.663(c)(3) redesignated as new (d) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.663(e)

(e) The owner or operator of an affected facility that seeks to comply with the TRE index value limit specified under §60.662(c) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

40 CFR 60.663(e)(1)

(1) Where an absorber is the final recovery device in the recovery system:

40 CFR 60.663(e)(1)(i)

(i) A scrubbing liquid temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is

greater, and a specific gravity monitoring device having an accuracy of ±0.02 specific gravity units, each equipped with a continuous recorder, or

40 CFR 60.663(e)(1)(ii)

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infrared, photoionization, or thermal conductivity, each equipped with a continuous recorder.

40 CFR 60.663(e)(2)

(2) Where a condenser is the final recovery device in the recovery system:

40 CFR 60.663(e)(2)(i)

(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, or

40 CFR 60.663(e)(2)(ii)

(ii) An organic monitoring device used to monitor organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

40 CFR 60.663(e)(3)

(3) Where a carbon adsorber is the final recovery device unit in the recovery system:

40 CFR 60.663(e)(3)(i)

(i) An integrating steam flow monitoring device having an accuracy of ±10 percent, and a carbon bed temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, both equipped with a continuous recorder, or

40 CFR 60.663(e)(3)(ii)

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the

recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

[Former §60.663(d) redesignated as new (e) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.663(f)

(f) An owner or operator of an affected facility seeking to demonstrate compliance with the standards specified under §60.662 with control devices other than incinerator, boiler, process heater, or flare; or recovery device other than an absorber, condenser, or carbon adsorber shall provide to the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

[Former §60.663(e) amended and redesignated as new (f) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664 Test methods and procedures.

40 CFR 60.664(a)

(a) For the purpose of demonstrating compliance with §60.662, all affected facilities shall be run at full operating conditions and flow rates during any performance test.

40 CFR 60.664(b)

(b) The following methods in appendix A to this part, except as provided under §60.8(b), shall be used as reference methods to determine compliance with the emission limit or percent reduction efficiency specified under §60.662(a).

40 CFR 60.664(b)(1)

(1) Method 1 or 1A, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or TOC (less methane and ethane) reduction efficiency shall be prior to the inlet of the control device and after the recovery system.

40 CFR 60.664(b)(2)

(2) Method 2, 2A, 2C, or 2D, as appropriate, for determination of the gas volumetric flow rates.

40 CFR 60.664(b)(3)

(3) The emission rate correction factor, integrated sampling and analysis procedure of Method 3 shall be used to determine the oxygen concentration ($\%O_{2d}$) for the purposes of determining compliance with the 20 ppmv limit. The sampling site shall be the same as that of the TOC samples, and the samples shall be taken during the same time that the TOC samples are taken.

The TOC concentration corrected to 3 percent 0_2 (C_c) shall be computed using the following equation:

$$C_c = C_{TOC} \frac{17.9}{20.9 - \%O_{2d}}$$

Where:

C_c= Concentration of TOC corrected to 3 percent O_2, dry basis, ppm by volume.

C_{TOC}= Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

$\%O_{2d}$= Concentration of O_2, dry basis, percent by volume.

40 CFR 60.664(b)(4)

(4) Method 18 to determine the concentration of TOC in the control device outlet and the concentration of TOC in the inlet when the reduction efficiency of the control device is to be determined.

40 CFR 60.664(b)(4)(i)

(i) The sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used then the samples shall be taken at 15-minute intervals.

40 CFR 60.664(b)(4)(ii)

(ii) The emission reduction (R) of TOC (minus methane and ethane) shall be determined using the following equation:

$$R = \frac{E_i - E_o}{E_i} \times 100$$

Where:

R = Emission reduction, percent by weight.

E_i= Mass rate of TOC entering the control device, kg/hr (lb/hr).

E_o= Mass rate of TOC discharged to the atmosphere, kg/hr (lb/hr).

[§60.664(b)(4)(ii) equation definitions amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(b)(4)(iii)

iii) The mass rates of TOC (E_i, E_o) shall be computed using the following equations:

$$E_i = K_2 \left(\sum_{j=1}^{n} C_{ij} M_{ij} \right) Q_i$$

$$E_o = K_2 \left(\sum_{j=1}^{n} C_{oj} M_{oj} \right) Q_o$$

Where:

C_{ij}, C_{oj}= Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppm by volume.

M_{ij}, M_{oj}= Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, g/g-mole (lb/lb-mole).

Q_i, Q_o= Flow rate of gas stream at the inlet and outlet of the control device, respectively, dscm/min (dscf/min).

K_2 = 2.494×10^{-6} (1/ppm)(g-mole/scm) (kg/g) (min/hr) (metric units), where standard temperature for (g-mole/scm) is 20°C.

= 1.557×10^{-7} (1/ppm) (lb-mole/scf) (min/hr) (English units), where standard temperature for (lb-mole/scf) is 68°F.

[§60.664(b)(4)(iii) equation definitions amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(b)(4)(iv)

(iv) The TOC concentration (C_{TOC}) is the sum of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{j=1}^{n} C_j$$

Where:

C_{TOC}= Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

C_j= Concentration of sample components "j", dry basis, ppm by volume.

n = Number of components in the sample.

40 CFR 60.664(c)

(c) When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with §60.662(a), the requirement for an initial performance test is waived, in accordance with §60.8(b). However, the Administrator reserves the

option to require testing at such other times as may be required, as provided for in section 114 of the Act.

[Former §60.664(b)(5) redesignated as new (c) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(d)

(d) When a flare is used to seek to comply with §60.662(b), the flare shall comply with the requirements of §60.18.

[Former §60.664(c) redesignated as new (d) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)

(e) The following test methods in appendix A to this part, except as provided under §60.8(b), shall be used for determining the net heating value of the gas combusted to determine compliance under §60.662(b) and for determining the process vent stream TRE index value to determine compliance under §60.662(c).

40 CFR 60.664(e)(1)

(1) (i) Method 1 or 1A, as appropriate, for selection of the sampling site. The sampling site for the vent stream flow rate and molar composition determination prescribed in §60.664(e)(2) and (3) shall be, except for the situations outlined in paragraph (e)(1)(ii) of this section, prior to the inlet of any control device, prior to any post-distillation dilution of the stream with air, and prior to any post-distillation introduction of halogenated compounds into the process vent stream. No transverse site selection method is needed for vents smaller than 10 centimeters (4 inches) in diameter.

[Former §60.664(d)(1)(i) redesignated as new (e)(1)(i) and amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)(1)(ii)

(ii) If any gas stream other than the distillation vent stream from the affected facility is normally conducted through the final recovery device.

40 CFR 60.664(e)(1)(ii)(A)

(A) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which the nondistillation stream is introduced.

40 CFR 60.664(e)(1)(ii)(B)

(B) The efficiency of the final recovery device is determined by measuring the TOC concentration using Method 18at the inlet to the final recovery device after the introduction of any nondistillation vent stream and at the outlet of the final recovery device.

40 CFR 60.664(e)(1)(ii)(C)

(C) This efficiency is applied to the TOC concentration measured prior to the final recovery device and prior to the introduction of the nondistillation stream to determine the concentration of TOC in the distillation vent stream from the final recovery device. This concentration of TOC is then used to perform the calculations outlined in §60.664(e)(4) and (5).

[Former §60.664(d)(1)(ii)(C) redesignated as new (e)(1)(ii)(C) and amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)(2)

(2) The molar composition of the process vent stream shall be determined as follows:

40 CFR 60.664(e)(2)(i)

(i) Method 18 to measure the concentration of TOC including those containing halogens.

40 CFR 60.664(e)(2)(ii)

(ii) ASTM D1946-77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) to measure the concentration of carbon monoxide and hydrogen.

[Former §60.664(d)(2)(ii) redesignated as new (e)(2)(ii) and amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)(2)(iii)

(iii) Method 4 to measure the content of water vapor.

40 CFR 60.664(e)(3)

(3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, as appropriate.

40 CFR 60.664(e)(4)

(4) The net heating value of the vent stream shall be calculated using the following equation:

$$H_T = K_1\left(\sum_{j=1}^{n} C_j H_j\right)$$

Where:

H_T = Net heating value of the sample, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25°C and 760 mm Hg (77°F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C (68°F).

K_1 = 1.74×10^{-7} (1/ppm) (g-mole/scm) (MJ/kcal) (metric units), where standard temperature for (g-mole/scm) is 20°C.

= 1.03×10^{-11} (1/ppm) (lb-mole/scf) (Btu/kcal) (English units) where standard temperature for (lb/mole/scf) is 68°F.

C_j = Concentration on a wet basis of compound j in ppm, as measured for organics by Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) as indicated in §60.664(e)(2).

H_j = Net heat of combustion of compound j, kcal/(g-mole) [kcal/(lb-mole)], based on combustion at 25°C and 760 mm Hg (77°F and 30 in. Hg).

The heats of combustion of vent stream components would be required to be determined using ASTM D2382-76 or 88 or D4809-95 (incorporation by reference as specified in §60.17 of this part) if published values are not available or cannot be calculated.

[Former §60.664(d)(4) redesignated as (e)(4) and equation definitions and text revised at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)(5)

(5) The emission rate of TOC in the vent stream shall be calculated using the following equation:

$$E_{TOC} = K_2 \left[\sum_{j=1}^{n} C_j M_j \right] Q_s$$

Where:

E_{TOC} = Measured emission rate of TOC, kg/hr (lb/hr).

K_2 = 2.494×10^{-6} (1/ppm) (g-mole/scm) (kg/g) (min/hr) (metric units), where standard temperature for (g-mole/scm) is 20°C.

= 1.557×10^{-7} (1/ppm) (lb-mole/scf) (min/hr) (English units), where standard temperature for (lb-mole/scf) is 68°F.

C_j = Concentration on a wet basis of compound j in ppm, as measured by Method 18 as indicated in §60.664(e)(2).

M_j = Molecular weight of sample j, g/g-mole (lb/lb-mole).

Q_s = Vent stream flow rate, scm/min (scf/min), at a temperature of 20°C (68°F).

[Former §60.664(d)(5) redesignated as new (e)(5) and equation definitions amended at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(e)(6)

(6) The total process vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18.

[Former §60.664(d) redesignated as new (e) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(f)

(f) For purposes of complying with §60.662(c) the owner or operator of a facility affected by this subpart shall calculate the TRE index value of the vent stream using the equation for incineration in paragraph (e)(1) of this section for halogenated vent streams. The owner or operator of an affected facility with a nonhalogenated vent stream shall determine the TRE index value by calculating values using both the incinerator equation in (e)(1) and the flare equation in (e)(2) of this section and selecting the lower of the two values.

[Former §60.664(e) redesignated as new (f) at 65 FR 61774, Oct. 7, 2000]

40 CFR 60.664(f)(1)

(1) The equation for calculating the TRE index value of a vent stream controlled by an incinerator is as follows:

$$TRE = \frac{1}{E_{TOC}} \left[a + b\left(Q_s\right) + c\left(Q_s\right)^{0.88} + d\left(Q_s\right)\left(H_T\right) + e\left(Q_s\right)^{0.88}\left(H_T\right)^{0.88} + f\left(Y_s\right)^{0.5}\right]$$

40 CFR 60.664(f)(1)(i)

(i) Where for a vent stream flow rate that is greater than or equal to 14.2 scm/min (501 scf/min) at a standard temperature of 20°C (68°F):

TRE = TRE index value.

Q_S = Vent stream flow rate, scm/min (scf/min), at a temperature of 20°C (68°F).

H_T = Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25°C and 760 mm Hg (68°F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C (68°F) as in the definition of Q_S.

Y_S = Q_S for all vent stream categories listed in Table 1 except for Category E vent streams where $Y_S = Q_S H_T/3.6$.

E_{TOC} = Hourly emissions of TOC, kg/hr (lb/hr).

a, b, c, d, e, and f are coefficients.

The set of coefficients that apply to a vent stream can be obtained from Table 1.

[Former §60.664(e)(1)(i) redesignated as new (f)(1)(i) and amended at 65 FR 61775, Oct. 17, 2000]

Table 1. Distillation NSPS TRE Coefficients for Vent Streams Controlled by an Incinerator

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Design Category A1. For Halogenated Process Vent Streams. If 0 ≤ 3.5.

Q_s Vent Stream Flow Rate (scm/min)	a	b	c	d	e	f
14.2 ≤ Qs ≤ 18.8	19.18370	0.27580	0.75762	- 0.13064	0	0.01025
18.8 ≤ Qs ≤ 699	20.00563	0.27580	0.30387	- 0.13064	0	0.01025
699 < Qs ≤ 1400	39.87022	0.29973	0.30387	- 0.13064	0	0.01449
1400 < Qs ≤ 2100	59.73481	0.31467	0.30387	- 0.13064	0	0.01775
2100 < Qs ≤ 2800	79.59941	0.32572	0.30387	- 0.13064	0	0.02049
2800 < Qs ≤ 3500	99.46400	0.33456	0.30387	- 0.13064	0	0.02291

Design Category A2. For Halogenated Process Vent Streams, if Net Heating Value > 3.5 MJ/scm:

Q_s Vent Stream Flow Rate (scm/min)	a	b	c	d	e	f
14.2 ≤ Qs ≤ 18.8	18.84466	0.26742	- 0.20044	0	0	0.01025
18.8 ≤ Qs ≤ 699	19.66658	0.26742	- 0.25332	0	0	0.01025
699 < Qs ≤ 1400	39.19213	0.29062	- 0.25332	0	0	0.01449
1400 < Qs ≤ 2100	58.71768	0.30511	- 0.25332	0	0	0.01775
2800 < Qs ≤ 3500	78.24323	0.31582	- 0.25332	0	0	0.02049
	97.76879	0.32439	- 0.25332	0	0	0.02291

Design Category B. For Nonhalogenated Process Vent Streams, if 0 ≤ Net Heating Value (MJ/scm) ≤ 0.48:

Q_s Vent Stream Flow Rate (scm/min)	a	b	c	d	e	f
14.2 ≤ Qs ≤ 1340	8.54245	0.1055	0.09030	- 0.17109	0	0.01025
1340 ≤ Qs ≤ 2690	18.36363	0.11470	0.09030	- 0.17109	0	0.01449
2690 < Qs ≤ 4040	27.47492	0.12042	0.09030	- 0.17109	0	0.01775

Design Category C. For Nonhalogenated Process Vent Streams, if 0.48 ≤ Net Heating Value (MJ/scm) ≤ 1.9:

Q_s Vent Stream Flow Rate (scm/min)	a	b	c	d	e	f
14.2 ≤ Qs ≤ 1340	9.25233	0.06105	0.31937	- 0.16181	0	0.01025
1340 ≤ Qs ≤ 2690	18.36363	0.06635	0.31937	- 0.16181	0	0.01449
2690 < Qs ≤ 4040	27.47492	0.6965	0.31937	- 0.16181	0	0.01775

Design Category D. For Nonhalogenated Process Vent Streams, if 1.9 < Net Heating Value (MJ/scm) ≤ 3.6:

Q_s Vent Stream Flow Rate (scm/min)	a	b	c	d	e	f
14.2 ≤ Qs ≤ 1180	6.67868	0.60943	0.02582	0	0	0.01025
1180 ≤ Qs ≤ 2370	13.21633	0.07546	0.02582	0	0	0.01449
2370 < Qs ≤ 3550	19.75398	0.07922	0.02582	0	0	0.01775

Design Category E. For Nonhalogenated Process Vent Streams, if not heating value > 3.6 Mg/scm:

Y_s - Dilution Flow Rate (scm/min) = (Q_s) (H_T)/3.6	a	b	c	d	e	f
14.2 ≤ Qs ≤ 1180	6.67868	0	0	- 0.00707	0.0220	0.01025
1180 ≤ Qs ≤ 2370	13.21633	0	0	- 0.00707	0.2412	0.01449
2370 < Qs ≤ 3550	19.75398	0	0	- 0.00707	0.02533	0.01775

40 CFR 60.664(f)(1)(ii)

(ii) Where for a vent stream flow rate that is less than 14.2 scm/min (501 scf/min) at a standard temperature of 20°C (68°F):

TRE = TRE index value.

Q_S = 14.2 scm/min (501 scf/min).

H_T = (FLOW) (HVAL)/Q_S.

Where the following inputs are used:

FLOW = Vent stream flow rate, scm/min (scf/min), at a temperature of 20°C (68°F).

HVAL = Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on

combustion at 25°C and 760 mm Hg (68°F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C (68°F) as in the definition of Q_S.

Y_S = Q_S for all vent stream categories listed in Table 1 except for Category E vent streams where $Y_S = Q_S H_T/3.6$.

E_{TOC} = Hourly emissions of TOC, kg/hr (lb/hr).

a, b, c, d, e, and f are coefficients

The set of coefficients that apply to a vent stream can be obtained from Table 1.

[Former §60.664(e)(1)(ii) redesignated as new (f)(1)(ii) and amended at 65 FR 61777, Oct. 17, 2000]

40 CFR 60.664(f)(2)

(2) The equation for calculating the TRE index value of a vent stream controlled by a flare is as follows:

$$TRE = \left[a\left(Q_s\right) + b\left(Q_s\right)^{0.8} + c\left(Q_s\right)\left(H_T\right) + d\left(E_{TOC}\right) + e\right]$$

Where:

TRE = TRE index value.

E_{TOC} = Hourly emissions of TOC, kg/hr (lb/hr).

Q_S = Vent stream flow rate, scm/min (scf/min), at a standard temperature of 20°C (68°F).

H_T = Vent stream net heating value, MJ/scm (Btu/scf), where the net enthalpy per mole of vent stream is based on combustion at 25°C and 760 mm Hg (68°F and 30 in. Hg), but the standard temperature for determining the volume corresponding to one mole is 20°C (68°F) as in the definition of Q_S.

a, b, c, d, and e are coefficients.

The set of coefficients that apply to a vent stream shall be obtained from Table 2.

Table 2 - Distillation NSPS TRE Coefficients for Vent Streams Controlled by a Flare

	a	b	c	d	e
HT < 11.2 MJ/scm.....	2.25	0.288	- 0.193	- 0.0051	2.08
HT ≥ 11,2 MJ/scm.....	0.309	0.0619	- 0.0043	- 0.0034	2.08

[Former §60.664(e)(2) redsignated as new (f)(2) and revised at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.664(g)

(g) Each owner or operator of an affected facility seeking to comply with §60.660(c)(4) or §60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

40 CFR 60.664(g)(1)

(1) Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by §60.664 in order to determine compliance with §60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

40 CFR 60.664(g)(2)

(2) Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the owner or operator shall conduct a performance test in accordance with §§60.8 and 60.664 and shall comply with §§60.663, 60.664 and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

[Former §60.664(f) redesignated as new (g) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.664(h)

(h) Any owner or operator subject to the provisions of this subpart seeking to demonstrate compliance with §60.660(c)(6) shall use Method 2, 2A, 2C, or 2D as appropriate, for determination of volumetric flow rate.

[Former §60.664(g) redesignated as new (h) at 65 FR 61774, Oct. 17, 2000]

40 CFR 60.665 Reporting and recordkeeping requirements.

40 CFR 60.665(a)

(a) Each owner or operator subject to §60.662 shall notify the Administrator of the specific provisions of §60.662 (§60.662(a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of §60.662 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by §60.664 within 180 days.

40 CFR 60.665(b)

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to comply with §60.662(a), a report containing performance test data need not be submitted, but a report containing the information in §60.665(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

40 CFR 60.665(b)(1)

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with

§60.662(a) through use of either a thermal or catalytic incinerator:

40 CFR 60.665(b)(1)(i)

(i) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing, and

40 CFR 60.665(b)(1)(ii)

(ii) The percent reduction of TOC determined as specified in §60.664(b) achieved by the incinerator, or the concentration of TOC (ppmv, by compound) determined as specified in §60.664(b) at the outlet of the control device on a dry basis corrected to 3 percent oxygen.

40 CFR 60.665(b)(2)

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(a) through use of a boiler or process heater:

40 CFR 60.665(b)(2)(i)

(i) A description of the location at which the vent stream is introduced into the boiler or process heater, and

40 CFR 60.665(b)(2)(ii)

(ii) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 MW (150 million Btu/hr) measured at least every 15 minutes and averaged over the same time period of the performance testing.

40 CFR 60.665(b)(3)

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(b) through use of a smokeless flare, flare design (i.e., steam-assisted, air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

40 CFR 60.665(b)(4)

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.662(c):

40 CFR 60.665(b)(4)(i)

(i) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Administrator), and average exit temperature, of the absorbing liquid measured at least every 15 minutes and averaged over the same time period of the performance testing (both measured while the vent stream is normally routed and constituted), or

[§60.665(b)(4)(i) amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.665(b)(4)(ii)

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally, or

40 CFR 60.665(b)(4)(iii)

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total steam mass flow measured at least every 15 minutes and averaged over the same time period of the performance test (full carbon bed cycle), temperature of the carbon bed after regeneration (and within 15 minutes of completion of any cooling cycle(s)), and duration of the carbon bed steaming cycle (all measured while the vent stream is routed and constituted normally), or

40 CFR 60.665(b)(4)(iv)

(iv) As an alternative to §60.665(b)(4) (i), (ii) or (iii), the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber, measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is normally routed and constituted.

40 CFR 60.665(b)(4)(v)

(v) All measurements and calculations performed to determine the TRE index value of the vent stream.

40 CFR 60.665(c)

(c) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663(a) and (c) as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where a combustion device is used to comply with §60.662(a), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

40 CFR 60.665(c)(1)

(1) For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test at which compliance with §60.662(a) was determined.

40 CFR 60.665(c)(2)

(2) For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the vent stream immediately before the catalyst bed is more than 28°C (50°F) below the average temperature of the vent stream during the most recent performance test at which compliance with §60.662(a) was determined. The owner or operator also shall record all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test at which compliance with §60.662(a) was determined.

40 CFR 60.665(c)(3)

(3) All 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent

performance test at which compliance with §60.662(a) was determined for boilers or process heaters with a design heat input capacity of less than 44 MW (150 million Btu/hr).

40 CFR 60.665(c)(4)

(4) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under §60.662(a).

40 CFR 60.665(d)

(d) Each owner or operator subject to the provisions of this subpart shall keep up to date, readily accessible continuous records of the flow indication specified under §60.663(a)(2), §60.663(b)(2) and §60.663(c)(1), as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate.

40 CFR 60.665(e)

(e) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater to comply with §60.662(a) shall keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other State or Federal regulatory requirements.)

[§60.665(e) amended at 65 FR 61778, Oct. 17, 2000]
40 CFR 60.665(f)

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.663(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

40 CFR 60.665(g)

(g) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.663(e), as well as up-to-date, readily accessible records of periods of

operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where an owner or operator seeks to comply with §60.662(c), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

[§60.665(g) introductory text amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.665(g)(1)

(1) Where an absorber is the final recovery device in a recovery system, and where an organic compound monitoring device is not used:

40 CFR 60.665(g)(1)(i)

(i) All 3-hour periods of operation during which the average absorbing liquid temperature was more than 11°C (20°F) above the average absorbing liquid temperature during the most recent performance test, or

40 CFR 60.665(g)(1)(ii)

(ii) All 3-hour periods of operation during which the average absorbing liquid specific gravity was more than 0.1 unit above, or more than 0.1 unit below, the average absorbing liquid specific gravity during the most recent performance test (unless monitoring of an alternative parameter, which is a measure of the degree of absorbing liquid saturation, is approved by the Administrator, in which case he will define appropriate parameter boundaries and periods of operation during which they are exceeded).

40 CFR 60.665(g)(2)

(2) Where a condenser is the final recovery device in a system, and where an organic compound monitoring device is not used, all 3-hour periods of operation during which the average exit (product side) condenser operating temperature was more than 6°C (11°F) above the average exit (product side) operating temperature during the most recent performance test.

40 CFR 60.665(g)(3)

(3) Where a carbon adsorber is the final recovery device in a system, and where an organic compound monitoring device is not used:

40 CFR 60.665(g)(3)(i)

(i) All carbon bed regeneration cycles during which the total mass steam flow was more than 10 percent below the total mass steam flow during the most recent performance test, or

40 CFR 60.665(g)(3)(ii)

(ii) All carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than 10 percent greater than the carbon bed temperature (in degrees Celsius) during the most recent performance test.

40 CFR 60.665(g)(4)

(4) Where an absorber, condenser, or carbon adsorber is the final recovery device in the recovery system and where an organic compound monitoring device is used, all 3-hour periods of operation during which the average organic compound concentration level or reading of organic compounds in the exhaust gases is more than 20 percent greater than the exhaust gas organic compound concentration level or reading measured by the monitoring device during the most recent performance test.

40 CFR 60.665(h)

(h) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with §60.662(c) shall keep up-to-date, readily accessible records of:

40 CFR 60.665(h)(1)

(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

40 CFR 60.665(h)(2)

(2) Any recalculation of the TRE index value performed pursuant to §60.664(f); and

40 CFR 60.665(h)(3)

(3) The results of any performance test performed pursuant to the methods and procedures required by §60.664(d).

40 CFR 60.665(i)

(i) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the flow rate cutoff in §60.660(c)(6) shall keep up-to-date, readily accessible records to indicate that the vent stream flow rate is less than 0.008 scm/min (0.3 scf/min) and of any change in equipment or process operation that increases the operating vent stream flow rate, including a measurement of the new vent stream flow rate.

[§60.665(i) amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.665(j)

(j) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in §60.660(c)(5) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.

40 CFR 60.665(k)

(k) Each owner and operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.

40 CFR 60.665(l)

(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.660(c)(4), (c)(5), or (c)(6) or §60.662 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.

40 CFR 60.665(l)(1)

(1) Exceedances of monitored parameters recorded under §60.665(c) and (g).

40 CFR 60.665(l)(2)

(2) All periods recorded under §60.665(d) when the vent stream is diverted from the control device or has no flow rate.

40 CFR 60.665(l)(3)

(3) All periods recorded under §60.665(e) when the boiler or process heater was not operating.

40 CFR 60.665(l)(4)

(4) All periods recorded under §60.665(f) in which the pilot flame of the flare was absent.

40 CFR 60.665(l)(5)

(5) Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in §60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under §60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under the low capacity exemption status in §60.660(c)(5), the facility must begin compliance with the requirements set forth in §60.662.

[§60.665(l)(5) amended at 60 FR 58237, Nov. 27, 1995]

40 CFR 60.665(l)(6)

(6) Any change in equipment or process operation, as recorded under paragraph (j) of this section, that increases the design production capacity above the low capacity exemption level in §60.660(c)(5) and the new capacity resulting from the change for the distillation process unit containing the affected facility. These must be

reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8. The facility must begin compliance with the requirements set forth in §60.660(d) or §60.662. If the facility chooses to comply with §60.662, the facility may qualify for an exemption in §60.660(c)(4) or (6).

[§60.665(l)(6) amended at 60 FR 58237, Nov. 27, 1995; 65 FR 61778, Oct. 17, 2000; revised at 65 FR 78279, Dec. 14, 2000]

40 CFR 60.665(l)(7)

(7) Any recalculation of the TRE index value, as recorded under §60.665(h).

40 CFR 60.665(m)

(m) The requirements of §60.665(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.665(l), provided that they comply with the requirements established by the State.

40 CFR 60.665(n)

(n) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(5) must submit to the Administrator an initial report detailing the design production capacity of the process unit.

[§60.665(n) amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.665(o)

(o) Each owner or operator that seeks to demonstrate compliance with §60.660(c)(6) must submit to the Administrator an initial report including a flow rate measurement using the test methods specified in §60.664.

40 CFR 60.665(p)

(p) The Administrator will specify appropriate reporting and recordkeeping requirements where the owner or operator of an affected facility complies with the standards specified under §60.662 other than as provided under §60.663(a), (b), (c) and (d).

40 CFR 60.666 Reconstruction.

For purposes of this subpart "fixed capital cost of the new components," as used in §60.15, includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following December 30, 1983. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

40 CFR 60.667 Chemicals affected by subpart NNN.

Chemical name	CAS No.*
Acetaldehyde	75-07-0
Acetaldol	107-89-1
Acetic acid	64-19-7
Acetic anhydride	108-24-7
Acetone	67-64-1
Acetone cyanohydrin	75-86-5
Acetylene	74-86-2
Acrylic acid	79-10-7
Acrylonitrile	107-13-1
Adipic acid	124-04-9
Adiponitrile	111-69-3
Alcohols, C-11 or lower, mixtures	
Alcohols, C-12 or higher, mixtures	
Allyl chloride	107-05-1
Amylene	513-35-9
Amylenes, mixed	
Aniline	62-53-3
Benzene	71-43-2
Benzenesulfonic acid	98-11-3
Benzenesulfonic acid C_{10-16}-alkyl derivatives, sodium salts	68081-81-2
Benzoic acid, tech	65-85-0
Benzyl chloride	100-44-7

Chemical name	CAS No.*
Biphenyl	92-52-4
Bisphenol A	80-05-7
Brometone	76-08-4
1,3-Butadiene	106-99-0
Butadiene and butene fractions	
n-Butane	106-97-8
1,4-Butanediol	110-63-4
Butanes, mixed	
1-Butene	106-98-9
2-Butene	25167-67-3
Butenes, mixed	
n-Butyl acetate	123-86-4
Butyl acrylate	141-32-2
n-Butyl alcohol	71-36-3
sec-Butyl alcohol	78-92-2
tert-Butyl alcohol	75-65-0
Butylbenzyl phthalate	85-68-7
Butylene glycol	107-88-0
tert-Butyl hydroperoxide	75-91-2
2-Butyne-1,4-diol	110-65-6
Butyraldehyde	123-72-8
Butyric anhydride	106-31-0
Caprolactam	105-60-2
Carbon disulfide	75-15-0
Carbon tetrabromide	558-13-4
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
2-Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine	1912-24-9
Chloroform	67-66-3
p-Chloronitrobenzene	100-00-5
Chloroprene	126-99-8
Citric acid	77-92-9
Crotonaldehyde	4170-30-0
Crotonic acid	3724-65-0
Cumene	98-82-8
Cumene hydroperoxide	80-15-9
Cyanuric chloride	108-77-0
Cyclohexane	110-82-7
Cyclohexane, oxidized	68512-15-2
Cyclohexanol	108-93-0
Cyclohexanone	108-94-1
Cyclohexanone oxime	100-64-1
Cyclohexene	110-83-8
1,3-Cyclopentadiene	542-92-7
Cyclopropane	75-19-4

Chemical name	CAS No.*
Diacetone alcohol	123-42-2
Dibutanized aromatic concentrate	
1,4-Dichlorobutene	110-57-6
3,4-Dichloro-1-butene	64037-54-3
Dichlorodifluoromethane	75-71-8
Dichlorodimethylsilane	75-78-5
Dichlorofluoromethane	75-43-4
-Dichlorohydrin	96-23-1
Diethanolamine	111-42-2
Diethylbenzene	25340-17-4
Diethylene glycol	111-46-6
Di-n-heptyl-n-nonyl undecyl phthalate	85-68-7
Di-isodecyl phthalate	26761-40-0
Diisononyl phthalate	28553-12-0
Dimethylamine	124-40-3
Dimethyl terephthalate	120-61-6
2,4-Dinitrotoluene	121-14-2
2,4-(and 2,6)-dinitrotoluene	121-14-2
	606-20-2
Dioctyl phthalate	117-81-7
Dodecene	25378-22-7
Dodecylbenzene, non linear	
Dodecylbenzenesulfonic acid	27176-87-0
Dodecylbenzenesulfonic acid, sodium salt	25155-30-0
Epichlorohydrin	106-89-8
Ethanol	64-17-5
Ethanolamine	141-43-5
Ethyl acetate	141-78-6
Ethyl acrylate	140-88-5
Ethylbenzene	100-41-4
Ethyl chloride	75-00-3
Ethyl cyanide	107-12-0
Ethylene	74-85-1
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene glycol	107-21-1
Ethylene glycol monobutyl	111-76-2
Ethylene glycol monoethyl ether	110-80-5
Ethylene glycol monoethyl ether acetate	111-15-9
Ethylene glycol monomethyl ether	109-86-4
Ethylene oxide	75-21-8
2-Ethylhexanal	26266-68-2
2-Ethylhexyl alcohol	104-76-7
(2-Ethylhexyl) amine	104-75-6
Ethylmethylbenzene	25550-14-5

Chemical name	CAS No.*
6-Ethyl-1,2,3,4-tetrahydro-9,10-anthracenedione	15547-17-8
Formaldehyde	50-00-0
Glycerol	56-81-5
n-Heptane	142-82-5
Heptenes (mixed)	
Hexadecyl chloride	
Hexamethylene diamine	124-09-4
Hexamethylene diamine adipate	3323-53-3
Hexamethylenetetramine	100-97-0
Hexane	110-54-3
2-Hexenedinitrile	13042-02-9
3-Hexenedinitrile	1119-85-3
Hydrogen cyanide	74-90-8
Isobutane	75-28-5
Isobutanol	78-83-1
Isobutylene	115-11-7
Isobutyraldehyde	78-84-2
Isodecyl alcohol	25339-17-7
Isooctyl alcohol	26952-21-6
Isopentane	78-78-4
Isophthalic acid	121-91-5
Isoprene	78-79-5
Isopropanol	67-63-0
Ketene	463-51-4
Linear alcohols, ethoxylated, mixed	
Linear alcohols, ethoxylated, and sulfated, sodium salt, mixed	
Linear alcohols, sulfated, sodium salt, mixed	
Linear alkylbenzene	123-01-3
Magnesium acetate	142-72-3
Maleic anhydride	108-31-6
Melamine	108-78-1
Mesityl oxide	141-79-7
Methacrylonitrile	126-98-7
Methanol	67-56-1
Methylamine	74-89-5
ar-Methylbenzenediamine	25376-45-8
Methyl chloride	74-87-3
Methylene chloride	75-09-2
Methyl ethyl ketone	78-93-3
Methyl iodide	74-88-4
Methyl isobutyl ketone	108-10-1
Methyl methacrylate	80-62-6
2-Methylpentane	107-83-5

Chemical name	CAS No.*
1-Methyl-2-pyrrolidone	872-50-4
Methyl tert-butyl ether	
Naphthalene	91-20-3
Nitrobenzene	98-95-3
1-Nonene	27215-95-8
Nonyl alcohol	143-08-8
Nonylphenol	25154-52-3
Nonylphenol, ethoxylated	9016-45-9
Octene	25377-83-7
Oil-soluble petroleum sulfonate, calcium salt	
Oil-soluble petroleum sulfonate, sodium salt	
Pentaerythritol	115-77-5
n-Pentane	109-66-0
3-Pentenenitrile	4635-87-4
Pentenes, mixed	109-67-1
Perchloroethylene	127-18-4
Phenol	108-95-2
1-Phenylethyl hydroperoxide	3071-32-7
Phenylpropane	103-65-1
Phosgene	75-44-5
Phthalic anhydride	85-44-9
Propane	74-98-6
Propionaldehyde	123-38-6
Propionic acid	79-09-4
Propyl alcohol	71-23-8
Propylene	115-07-1
Propylene chlorohydrin	78-89-7
Propylene glycol	57-55-6
Propylene oxide	75-56-9
Sodium cyanide	143-33-9
Sorbitol	50-70-4
Styrene	100-42-5
Terephthalic acid	100-21-0
1,1,2,2-Tetrachloroethane	79-34-5
Tetraethyl lead	78-00-2
Tetrahydrofuran	109-99-9
Tetra (methyl-ethyl) lead	
Tetramethyl lead	75-74-1
Toluene	108-88-3
Toluene-2,4-diamine	95-80-7
Toluene-2,4-(and, 2,6)-diisocyanate (80/20 mixture)	26471-62-5
Tribromomethane	75-25-2
1,1,1-Trichloroethane	71-55-6

Chemical name	CAS No.*
1,1,2-Trichloroethane	79-00-5
Trichloroethylene	79-01-6
Trichlorofluoromethane	75-69-4
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Triethanolamine	102-71-6
Triethylene glycol	112-27-6
Vinyl acetate	108-05-4
Vinyl chloride	75-01-4
Vinylidene chloride	75-35-4
m-Xylene	108-38-3
o-Xylene	95-47-6
p-Xylene	106-42-3
Xylenes (mixed)	1330-20-7
m-Xylenol	576-26-1

* CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[§60.667 table amended at 60 FR 58237, Nov. 27, 1995]

40 CFR 60.668 Delegation of authority.

40 CFR 60.668(a)

(a) In delegating implementation and enforcement authority to a State under §111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

40 CFR 60.668(b)

(b) Authorities which will not be delegated to States: §60.663(e).

Subpart RRR—Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes

[Subpart RRR added at 58 FR 45962, Aug. 31, 1993]

40 CFR 60.700 Applicability and designation of affected facility.

40 CFR 60.700(a)

(a) The provisions of this subpart apply to each affected facility designated in paragraph (b)of this section that is part of a process unit that produces any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate, except as provided in paragraph (c) of this section.

40 CFR 60.700(b)

(b) The affected facility is any of the following for which construction, modification, or reconstruction commenced after June 29, 1990:

40 CFR 60.700(b)(1)

(1) Each reactor process not discharging its vent stream into a recovery system.

40 CFR 60.700(b)(2)

(2) Each combination of a reactor process and the recovery system into which its vent stream is discharged.

40 CFR 60.700(b)(3)

(3) Each combination of two or more reactor processes and the common recovery system into which their vent streams are discharged.

40 CFR 60.700(c)

(c) Exemptions from the provisions of paragraph (a) of this section are as follows:

40 CFR 60.700(c)(1)

(1) Any reactor process that is designed and operated as a batch operation is not an affected facility.

40 CFR 60.700(c)(2)

(2) Each affected facility that has a total resource effectiveness (TRE) index value greater than 8.0 is exempt from all provisions of this subpart except for §§60.702(c)

60.704 (d), (e), and (f); and 60.705 (g), (l)(1), (l)(6), and (t);

[§60.700(c)(2) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.700(c)(3)

(3) Each affected facility in a process unit with a total design capacity for all chemicals produced within that unit of less than 1 gigagram per year (1,100 tons per year) is exempt from all provisions of this subpart except for the recordkeeping and reporting requirements in §60.705 (i), (l)(5) and (n).

[§60.700(c)(3) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.700(c)(4)

(4) Each affected facility operated with a vent stream flow rate less than 0.011 scm/min is exempt from all provisions of this subpart except for the test method and procedure and the recordkeeping and reporting requirements in §60.704(g) and paragraphs §60.705 (h), (l)(4), and (o).

[§60.700(c)(4) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.700(c)(5)

(5) If the vent stream from an affected facility is routed to a distillation unit subject to subpart NNN and has no other releases to the air except for a pressure relief valve, the facility is exempt from all provisions of this subpart except for §60.705(r).

40 CFR 60.700(c)(6)

(6) Any reactor process operating as part of a process unit which produces beverage alcohols, or which uses, contains, and produces no VOC is not an affected facility.

40 CFR 60.700(c)(7)

(7) Any reactor process that is subject to the provisions of subpart DDD is not an affected facility.

40 CFR 60.700(c)(8)

(8) Each affected facility operated with a concentration of total organic compounds (TOC) (less methane and ethane) in the vent stream less than 300 ppmv as measured by Method

18 or a concentration of TOC in the vent stream less than 150 ppmv as measured by Method 25Ais exempt from all provisions of this subpart except for the test method and procedure and the reporting and recordkeeping requirements in §60.704(h) and paragraphs (j), (l)(8), and (p) of §60.705.

40 CFR 60.700(d)

(d) *Alternative means of compliance.*

40 CFR 60.700(d)(1)

(1) *Option to comply with part 65.* Owners or operators of process vents that are subject to this subpart may choose to comply with the provisions of 40 CFR part 65, subpart D, to satisfy the requirements of §§60.702 through 60.705 and 60.708. The provisions of 40 CFR part 65 also satisfy the criteria of paragraphs (c)(2), (4), and (8) of this section. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

40 CFR 60.700(d)(2)

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart D, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those process vents. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (d)(2) do not apply to owners or operators of process vents complying with 40 CFR part 65, subpart D, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart D, must comply with 40 CFR part 65, subpart A.

40 CFR 60.700(d)(3)

(3) *Compliance date.* Owners or operators who choose to comply with 40 CFR part 65, subpart D at initial startup shall comply with paragraphs (d)(1) and (2) of this section for each vent stream on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first.

40 CFR 60.700(d)(4)

(4) *Initial startup notification.* Each owner or operator subject to the provisions of this subpart that chooses to comply with 40 CFR part 65, subpart D, at initial startup shall notify the Administrator of the specific provisions of 40 CFR 65.63(a)(1), (2), or (3), with which the owner or operator has elected to comply. Notification shall be submitted with the notifications of initial startup required by 40 CFR 65.5(b).

[§60.700(d) added at 65 FR 78279, Dec. 14, 2000]

Note: The intent of these standards is to minimize emissions of VOC through the application of best demonstrated technology (BDT). The numerical emission limits in these standards are expressed in terms of TOC, measured as TOC less methane and ethane. This emission limit reflects the performance of BDT.)

40 CFR 60.701 Definitions

As used in this subpart, all terms not defined here shall have the meaning given them in the Act and in subpart A of part 60, and the following terms shall have the specific meanings given them.

Batch operation means any noncontinuous reactor process that is not characterized by steady-state conditions and in which reactants are not added and products are not removed simultaneously.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Combustion device means an individual unit of equipment, such as an incinerator, flare, boiler, or process heater, used for combustion of a vent stream discharged from the process vent.

Continuous recorder means a data recording device recording an instantaneous data value at least once every 15 minutes.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device which indicates whether gas flow is present in a line.

Halogenated vent stream means any vent stream determined to have a total concentration (by volume) of compounds containing halogens of 20 ppmv (by compound) or greater.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. If there is energy recovery, the energy recovery section and the combustion chambers are not of integral design. That is, the energy recovery section and the combustion section are not physically formed into one manufactured or assembled unit but are joined by ducts or connections carrying flue gas.

Primary fuel means the fuel fired through a burner or a number of similar burners. The primary fuel provides the principal heat input to the device, and the amount of fuel is sufficient to sustain operation without the addition of other fuels.

Process heater means a device that transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process unit means equipment assembled and connected by pipes or ducts to produce, as intermediates or final products, one or more of the chemicals in §60.707. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient product storage facilities.

Product means any compound or chemical listed in §60.707 which is produced for sale as a final product as that chemical, or for use in the production of other chemicals or compounds. By-products, co-products, and intermediates are considered to be products.

Reactor processes are unit operations in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way that their molecular structures are altered and one or more new organic compounds are formed.

Recovery device means an individual unit of equipment, such as an absorber, carbon adsorber, or condenser, capable of and used for the purpose of recovering chemicals for use, reuse, or sale.

Recovery system means an individual recovery device or series of such devices applied to the same vent stream.

Relief valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge results from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

Secondary fuel means a fuel fired through a burner other than a primary fuel burner. The secondary fuel may provide supplementary heat in addition to the heat provided by the primary fuel.

Total organic compounds or TOC means those compounds measured according to the procedures in §60.704(b)(4). For the purposes of measuring molar composition as required in §60.704(d)(2)(i) and §60.704(d)(2)(ii), hourly emission rate as required in §60.704(d)(5) and §60.704(e), and TOC concentration as required in § 60.705(b)(4) and §60.705(f)(4), those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone are to be excluded.

Total resource effectiveness or TRE index value means a measure of the supplemental total resource requirement per unit reduction of TOC associated with a vent stream from an affected reactor process facility, based on vent stream flow rate, emission rate of TOC, net heating value, and corrosion properties (whether or not the vent stream contains halogenated compounds), as quantified by the equation given under § 60.704(e).

Vent stream means any gas stream discharged directly from a reactor process to the atmosphere or indirectly to the atmosphere after diversion through other process equipment. The vent stream excludes relief valve discharges and equipment leaks.

40 CFR 60.702 Standards.

Each owner or operator of any affected facility shall comply with paragraph (a), (b), or (c) of this section for each vent stream on and after the date on which the initial performance test required by §60.8 and §60.704 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. Each owner or operator shall either:

40 CFR 60.702(a)

(a) Reduce emissions of TOC (less methane and ethane) by 98 weight-per cent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3

percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

40 CFR 60.702(b)

(b) Combust the emissions in a flare that meets the requirements of §60.18; or

40 CFR 60.702(c)

(c) Maintain a TRE index value greater than 1.0 without use of a VOC emission control device.

40 CFR 60.703 Monitoring of emissions and operations.

40 CFR 60.703(a)

(a) The owner or operator of an affected facility that uses an incinerator to seek to comply with the TOC emission limit specified under §60.702(a) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

40 CFR 60.703(a)(1)

(1) A temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater.

40 CFR 60.703(a)(1)(i)

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange is encountered.

40 CFR 60.703(a)(1)(ii)

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

40 CFR 60.703(a)(2)

(2) A flow indicator that provides a record of vent stream flow diverted from being routed to the incinerator at

least once every 15 minutes for each affected facility, except as provided in paragraph (a)(2)(ii) of this section.

40 CFR 60.703(a)(2)(i)

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the incinerator, resulting in its emission to the atmosphere.

40 CFR 60.703(a)(2)(ii)

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

40 CFR 60.703(b)

(b) The owner or operator of an affected facility that uses a flare to seek to comply with §60.702(b) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment:

40 CFR 60.703(b)(1)

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame.

40 CFR 60.703(b)(2)

(2) A flow indicator that provides a record of vent stream flow diverted from being routed to the flare at least once every 15 minutes for each affected facility, except as provided in paragraph (b)(2)(ii) of this section.

40 CFR 60.703(b)(2)(i)

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the flare, resulting in its emission to the atmosphere.

40 CFR 60.703(b)(2)(ii)

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

40 CFR 60.703(c)

(c) The owner or operator of an affected facility that uses a boiler or process heater to seek to comply with §60.702(a) shall install, calibrate, maintain and operate according to the manufacturer's specifications the following equipment:

40 CFR 60.703(c)(1)

(1) A flow indicator that provides a record of vent stream flow diverted from being routed to the boiler or process heater at least once every 15 minutes for each affected facility, except as provided in paragraph (c)(1)(ii) of this section.

40 CFR 60.703(c)(1)(i)

(i) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream from being routed to the boiler or process heater, resulting in its emission to the atmosphere.

40 CFR 60.703(c)(1)(ii)

(ii) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

40 CFR 60.703(c)(2)

(2) A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million

Btu/hr) design heat input capacity. Any vent stream introduced with primary fuel into a boiler or process heater is exempt from this requirement.

40 CFR 60.703(d)

(d) The owner or operator of an affected facility that seeks to demonstrate compliance with the TRE index value limit specified under §60.702(c) shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator:

40 CFR 60.703(d)(1)

(1) Where an absorber is the final recovery device in the recovery system:

40 CFR 60.703(d)(1)(i)

(i) A scrubbing liquid temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, and a specific gravity monitoring device having an accuracy of ±0.02 specific gravity units, each equipped with a continuous recorder; or

40 CFR 60.703(d)(1)(ii)

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

40 CFR 60.703(d)(2)

(2) Where a condenser is the final recovery device in the recovery system:

40 CFR 60.703(d)(2)(i)

(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater; or

40 CFR 60.703(d)(2)(ii)

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

40 CFR 60.703(d)(3)

(3) Where a carbon adsorber is the final recovery device unit in the recovery system:

40 CFR 60.703(d)(3)(i)

(i) An integrating steam flow monitoring device having an accuracy of ±10 percent, and a carbon bed temperature monitoring device having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5°C, whichever is greater, both equipped with a continuous recorder; or

40 CFR 60.703(d)(3)(ii)

(ii) An organic monitoring device used to indicate the concentration level of organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder.

40 CFR 60.703(e)

(e) An owner or operator of an affected facility seeking to demonstrate compliance with the standards specified under §60.702 with a control device other than an incinerator, boiler, process heater, or flare; or a recovery device other than an absorber, condenser, or carbon adsorber, shall provide to the Administrator information describing the operation of the control device or recovery device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

40 CFR 60.704 Test methods and procedures.

40 CFR 60.704(a)

(a) For the purpose of demonstrating compliance with §60.702, all affected facilities shall be run at full operating conditions and flow rates during any performance test.

40 CFR 60.704(b)

(b) The following methods in Appendix A to this part, except as provided under §60.8(b), shall be used as reference methods to determine compliance with the emission limit or percent reduction efficiency specified under §60.702(a).

40 CFR 60.704(b)(1)

(1) Method 1 or 1A, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or TOC (less methane and ethane) reduction efficiency shall be prior to the inlet of the control device and after the recovery system.

40 CFR 60.704(b)(2)

(2) Method 2, 2A, 2C, or 2D, as appropriate, for determination of the gas volumetric flow rates.

40 CFR 60.704(b)(3)

(3) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the oxygen concentration ($\%O_{2d}$) for the purposes of determining compliance with the 20 ppmv limit. The sampling site shall be the same as that of the TOC samples, and the samples shall be taken during the same time that the TOC samples are taken. The TOC concentration corrected to 3 percent O_2 (Cc) shall be computed using the following equation:

$$C_c = C_{TOC} \frac{17.9}{20.9 - \%O_{2d}}$$

Where:

C_C= Concentration of TOC corrected to 3 percent O_2, dry basis, ppm by volume.

C_{TOC}= Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

$\%O_{2d}$= Concentration of O_2, dry basis, percent by volume.

40 CFR 60.704(b)(4)

(4) Method 18 to determine the concentration of TOC in the control device outlet and the concentration of TOC in the inlet when the reduction efficiency of the control device is to be determined.

40 CFR 60.704(b)(4)(i)

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately 15-minute intervals.

40 CFR 60.704(b)(4)(ii)

(ii) The emission reduction (R) of TOC (minus methane and ethane) shall be determined using the following equation:

$$R = \frac{E_i - E_o}{E_i} \times 100$$

Where:

R= Emission reduction, percent by weight.

E_i= Mass rate of TOC entering the control device, kg TOC/hr.

E_o= Mass rate of TOC discharged to the atmosphere, kg TOC/hr.

40 CFR 60.704(b)(4)(iii)

(iii) The mass rates of TOC (E_i, E_o) shall be computed using the following equations:

$$E_i = K_2 \sum_{j=1}^{n} C_{ij} M_{ij} Q_i$$

$$E_o = K_2 \sum_{j=1}^{n} C_{oj} M_{ij} Q_o$$

Where:

C_{ij}, C_{oj}= Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppm by volume.

M_{ij}, M_{oj}= Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, g/g-mole (lb/lb-mole).

Q_i, Q_o= Flow rate of gas stream at the inlet and outlet of the control device, respectively, dscm/min (dscf/hr).

K_2= Constant, 2.49410^{-6} (l/ppm) (g-mole/scm) (kg/g) (min/hr), where standard temperature for (g-mole/scm) is 20°C.

40 CFR 60.704(b)(4)(iv)

(iv) The TOC concentration (C_{TOC}) is the sum of the individual components and shall be computed for each run using the following equation:

$$C_{TOC} = \sum_{j=1}^{n} C_j$$

Where:

C_{TOC}= Concentration of TOC (minus methane and ethane), dry basis, ppm by volume.

C_j= Concentration of sample components "j", dry basis, ppm by volume.

n= Number of components in the sample.

40 CFR 60.704(b)(5)

(5) The requirement for an initial performance test is waived, in accordance with §60.8(b), for the following:

40 CFR 60.704(b)(5)(i)

(i) When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek compliance with §60.702(a).

40 CFR 60.704(b)(5)(ii)

(ii) When a vent stream is introduced into a boiler or process heater with the primary fuel.

40 CFR 60.704(b)(5)(iii)

(iii) The Administrator reserves the option to require testing at such other times as may be required, as provided for in section 114 of the Act.

40 CFR 60.704(b)(6)

(6) For purposes of complying with the 98 weight-percent reduction in §60.702(a), if the vent stream entering a boiler or process heater with a design capacity less than 44 MW (150 million Btu/hour) is introduced with the combustion air or as secondary fuel, the weight-percent

reduction of TOC (minus methane and ethane) across the combustion device shall be determined by comparing the TOC (minus methane and ethane) in all combusted vent streams, primary fuels, and secondary fuels with the TOC (minus methane and ethane) exiting the combustion device.

40 CFR 60.704(c)

(c) When a flare is used to seek to comply with §60.702(b), the flare shall comply with the requirements of §60.18.

40 CFR 60.704(d)

(d) The following test methods in Appendix A to this part, except as provided under §60.8(b), shall be used for determining the net heating value of the gas combusted to determine compliance under §60.702(b) and for determining the process vent stream TRE index value to determine compliance under §60.700(c)(2) and §60.702(c).

40 CFR 60.704(d)(1)

(1) (i) Method 1 or 1A, as appropriate, for selection of the sampling site. The sampling site for the vent stream flow rate and molar composition determination prescribed in §60.704(d)(2) and (d)(3) shall be, except for the situations outlined in paragraph (d)(1)(ii) of this section, prior to the inlet of any control device, prior to any post reactor dilution of the stream with air, and prior to any post reactor introduction of halogenated compounds into the process vent stream. No traverse site selection method is needed for vents smaller than 4 inches in diameter.

40 CFR 60.704(d)(1)(ii)

(ii) If any gas stream other than the reactor vent stream is normally conducted through the final recovery device:

40 CFR 60.704(d)(1)(ii)(A)

(A) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which any nonreactor stream or stream from a nonaffected reactor process is introduced.

40 CFR 60.704(d)(1)(ii)(B)

(B) The efficiency of the final recovery device is determined by measuring the TOC concentration using Method 18at the inlet to the final recovery device after the introduction of any vent stream and at the outlet of the final recovery device.

40 CFR 60.704(d)(1)(ii)(C)

(C) This efficiency of the final recovery device shall be applied to the TOC concentration measured prior to the final recovery device and prior to the introduction of any nonreactor stream or stream from a nonaffected reactor process to determine the concentration of TOC in the reactor process vent stream from the final recovery device. This concentration of TOC is then used to perform the calculations outlined in §60.704(d)(4) and (5).

40 CFR 60.704(d)(2)

(2) The molar composition of the process vent stream shall be determined as follows:

40 CFR 60.704(d)(2)(i)

(i) Method 18 to measure the concentration of TOC including those containing halogens.

40 CFR 60.704(d)(2)(ii)

(ii) ASTM D1946-77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) to measure the concentration of carbon monoxide and hydrogen.

[§60.704(d)(2)(ii) amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.704(d)(2)(iii)

(iii) Method 4 to measure the content of water vapor.

40 CFR 60.704(d)(3)

(3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, as appropriate.

40 CFR 60.704(d)(4)

(4) The net heating value of the vent stream shall be calculated using the following equation:

$$H_T = K_1 \sum_{j=1}^{n} C_j H_j \quad 1 - B_{ws}$$

Where:

H_T= Net heating value of the sample, MJ/scm, where the net enthalpy per mole of vent stream is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C, as in the definition of Q_s (vent stream flow rate).

K_1= Constant, 1.74010^{-7} (l/ppm) (g-mole/scm) (MJ/kcal), where standard temperature for (g-mole/scm) is 20 °C.

C_j= Concentration on a dry basis of compound j in ppm, as measured for organics by Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (incorporation by reference as specified in §60.17 of this part) as indicated in §60.704(d)(2).

H_j= Net heat of combustion of compound j, kcal/g-mole, based on combustion at 25 °C and 760 mm Hg. The heats of combustion of vent stream components would be required to be determined using ASTM D2382-76 or 88 or D4809-95 (incorporation by reference as specified in §60.17 of this part) if published values are not available or cannot be calculated.

B_{ws}= Water vapor content of the vent stream, proportion by volume.

[§60.704(d)(4) amended at 65 FR 61778, Oct. 17, 2000]

40 CFR 60.704(d)(5)

(5) The emission rate of TOC in the vent stream shall be calculated using the following equation:

$$E_{TOC} = K_2 \sum_{j=1}^{n} C_j M_j Q_s$$

Where:

E_{TOC}= Emission rate of TOC in the sample, kg/hr.

K_2= Constant, 2.49410^{-6} (l/ppm) (g-mole/scm) (kg/g) (min/hr), where standard temperature for (g-mole/scm) is 20°C.

C_j= Concentration on a dry basis of compound j in ppm as measured by Method 18 as indicated in §60.704(d)(2).

M_j= Molecular weight of sample j, g/g-mole.

Q_s= Vent stream flow rate (dscm/min) at a temperature of 20°C.

40 CFR 60.704(d)(6)

(6) The total vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18.

40 CFR 60.704(e)

(e) For purposes of complying with §60.700(c)(2) and §60.702(c), the owner or operator of a facility affected by this subpart shall calculate the TRE index value of the vent stream using the equation for incineration in paragraph (e)(1) of this section for halogenated vent streams. The owner or operator of an affected facility with a nonhalogenated vent stream shall determine the TRE index value by calculating values using both the incinerator equation in (e)(1) of this section and the flare equation in (e)(2) of this section and selecting the lower of the two values.

40 CFR 60.704(e)(1)

(1) The equation for calculating the TRE index value of a vent stream controlled by an incinerator is as follows:

$$TRE = \frac{1}{E_{TOC}}\left[a + b\left(Q_s\right)^{0.88} + c\left(Q_s\right) + d\left(Q_s\right)\left(H_T\right) + e\left(Q_s\right)^{0.88}\left(H_T\right)^{0.88} + f\left(Y_x\right)^{0.5}\right]$$

[§60.704(e)(1) equation revised at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.704(e)(1)(i)

(i) Where for a vent stream flow rate (scm/min) at a standard temperature of 20 °C that is greater than or equal to 14.2 scm/min:

TRE= TRE index value.

Q_S= Vent stream flow rate (scm/min) at a standard temperature of 20 °C.

H_T= Vent stream net heating value (MJ/scm), where the net enthalpy per mole of vent stream is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C as in the definition of Q_S.

Y_S= Q_S for all vent stream categories listed in Table 1 except for Category E vent streams where $Y_S=(Q_S)(H_T)/3.6$.

E_{TOC}= Hourly emissions of TOC reported in kg/hr.

a, b, c, d, e, and f are coefficients. The set of coefficients that apply to a vent stream can be obtained from Table 1.

Table 1. - Total Resource Effectiveness Coefficients for Vent Streams Controlled by an Incinerator Subject to the New Source Performance Standards for Reactor Processes

	a	b	c	d	e	f
Design Category A1. For Halogenated Process Vent Streams, if 0 ≤ Net Heating Value (MJ/scm) ≤ 3.5: Q_s - Vent Stream Flow Rate (scm/min)						

14.2 ≤ Qs ≤ 18.8	19.18370	0.27580	0.75762	- 0.13064	0	0.01025
18.8 ≤ Qs ≤ 699	20.00563	0.27580	0.30387	- 0.13064	0	0.01025
699 < Qs ≤ 1400	39.87033	0.29973	0.30387	- 0.13064	0	0.01449
1400 < Qs ≤ 2100	59.73481	0.31467	0.30387	- 0.13064	0	0.01775
2100 < Qs ≤ 2800	79,59941	0.32572	0.30387	- 0.13064	0	0.02049
2800 < Qs ≤ 3500	99,46400	0.34456	0.30387	- 0.13064	0	0.02291

Design Category A2. For Halogenated Process Vent Streams, if Net Heating Value (MJ/scm) > 3.5: Qs = Vent Stream Flow Rate (scm/min)

14.2 ≤ Qs ≤ 18.8	18.84466	0.26742	- 0.20044	0	0	0.01025
18.8 ≤ Qs ≤ 699	19.66658	0.26742	- 0.25332	0	0	0.01025
699 < Qs ≤ 1400	39.19213	0.29062	- 0.25332	0	0	0.01449
1400 < Qs ≤ 2100	58.71768	0.30511	- 0.25332	0	0	0.01775
2100 < Qs ≤ 2800	78.24323	0.31582	- 0.25332	0	0	0.02049
2800 < Qs ≤ 3500	97.76879	0.32539	- 0.25332	0	0	0.02291

Design Category B. For Nonhalogenated Process Vent Streams, if 0 ≤ 0.48: Qs = Vent Stream Flow Rate (scm/min)

14.2 ≤ Qs ≤ 1340	8.54245	0.10555	0.09030	- 0.17109	0	0.01025
1340 ≤ Qs ≤ 2690	16.94386	0.11470	0.09030	- 0.17109	0	0.01449
2690 < Qs ≤ 4040	25.34528	0.12042	0.09030	- 0.17109	0	0.01775

Design Category C. For Nonhalogenated Process Vent Streams, if 0.48 < Net Heating Value (MJ/scm) ≤ 1.9:

14.2 ≤ Qs ≤ 1340	9.25233	0.06105	0.31937	- 0.16181	0	0.01025
1340 ≤ Qs ≤ 2690	18.36363	0.06635	0.31937	- 0.16181	0	0.01449
2690 < Qs ≤ 4040	27,47492	0.06965	0.31937	- 0.16181	0	0.01775

Design Category D. For Nonhalogenated Process Vent Streams, if 1.9 < Net Heating Value (MJ/scm) ≤ 3.6: Qs = Vent Stream Flow Rate (scm/min)

14.2 ≤ Qs ≤ 1180	6.67868	0.06943	0.02582	0	0	0.01025
1180 ≤ Qs ≤ 2370	13.21633	0.07546	0.02582	0	0	0.01449
2370 < Qs ≤ 3550	19.75396	0.07922	0.02582	0	0	0.01755

Design Category E. For Nonhalogenated Process Vent Streams, if Net Heating Value (MJ/scm) > 3.6: Ys = Dilution Flow Rate (scm/min) = $(Q_s)(H_T)/3.6$

14.2 ≤ Qs ≤ 1180	6.67868	0	0	- 0.00707	0.02220	0.01025
1180 ≤ Qs ≤ 2370	13.21633	0	0	- 0.00707	0.02412	0.01449
2370 < Qs ≤ 3550	19.75398	0	0	- 0.00707	0.02533	0.01755

40 CFR 60.704(e)(1)(ii)

(ii) For a vent stream flow rate (scm/min) at a standard temperature of 20°C that is less than 14.2 scm/min:

TRE= TRE index value.

Q_S= 14.2 scm/min.

H_T= (FLOW)(HVAL)/14.2

Where the following inputs are used:

FLOW= Vent stream flow rate (scm/min), at a standard temperature of 20°C.

HVAL= Vent stream net heating value (MJ/scm), where the net enthalpy per mole of vent stream is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C as in definition of Q_S.

Y_S= 14.2 scm/min for all vent streams except for Category E vent streams, where Y_S = (14.2)(H_T)/3.6.

E_{TOC}= Hourly emissions of TOC reported in kg/hr.

a, b, c, d, e, and f are coefficients. The set of coefficients that apply to a vent stream can be obtained from Table 1.

40 CFR 60.704(e)(2)

(2) The equation for calculating the TRE index value of a vent stream controlled by a flare is as follows:

$$TRE = \frac{1}{E_{TOC}}\left[a\left(Q_s\right) + b\left(Q_s\right)^{0.8} + c\left(Q_s\right)\left(H_T\right) + d\left(E_{TOC}\right) + e\right]$$

Where:

TRE= TRE index value.

E_{TOC}= Hourly emission rate of TOC reported in kg/hr.

Q_S= Vent stream flow rate (scm/min) at a standard temperature of 20°C.

H_T= Vent stream net heating value (MJ/scm) where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C as in the definition of Q_S.

a, b, c, d, and e are coefficients. The set of coefficients that apply to a vent stream can be obtained from Table 2.

	a	b	c	d	e
HT < 11.2 MJ/scm.....	2.25	0.288	- 0.193	- 0.0051	2.08
HT ≥ 11,2 MJ/scm.....	0.309	0.0619	- 0.0043	- 0.0034	2.08

40 CFR 60.704(f)

(f) Each owner or operator of an affected facility seeking to comply with §60.700(c)(2) or §60.702(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change on the recovery system.

40 CFR 60.704(f)(1)

(1) Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by §60.704 in order to determine compliance with §60.702 (a) or (b). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

[§60.704(f)(1) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.704(f)(2)

(2) Where the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the owner or operator

shall conduct a performance test in accordance with §60.8 and §60.704 and shall comply with §60.703, §60.704 and §60.705. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

40 CFR 60.704(g)

(g) Any owner or operator subject to the provisions of this subpart seeking to demonstrate compliance with §60.700(c)(4) shall use Method 2, 2A, 2C, or 2D of appendix A to 40 CFR part 60, as appropriate, for determination of volumetric flow rate.

40 CFR 60.704(h)

(h) Each owner or operator seeking to demonstrate that a reactor process vent stream has a TOC concentration for compliance with the low concentration exemption in §60.700(c)(8) shall conduct an initial test to measure TOC concentration.

40 CFR 60.704(h)(1)

(1) The sampling site shall be selected as specified in paragraph (d)(1)(i) of this section.

40 CFR 60.704(h)(2)

(2) Method 18or Method 25A of part 60, appendix A shall be used to measure concentration.

40 CFR 60.704(h)(3)

(3) Where Method 18is used to qualify for the low concentration exclusion in §60.700(c)(8), the procedures in §60.704(b)(4)(i) and (iv) shall be used to measure TOC concentration, and the procedures of §60.704(b)(3) shall be used to correct the TOC concentration to 3 percent oxygen. To qualify for the exclusion, the results must demonstrate that the concentration of TOC, corrected to 3 percent oxygen, is below 300 ppm by volume.

[§60.704(h)(3) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.704(h)(4)

(4) Where Method 25A is used, the following procedures shall be used to calculate ppm by volume TOC concentration, corrected to 3 percent oxygen:

40 CFR 60.704(h)(4)(i)

(i) Method 25A shall be used only if a single organic compound is greater than 50 percent of total TOC, by volume, in the reactor process vent stream. This compound shall be the principal organic compound.

40 CFR 60.704(h)(4)(ii)

(ii) The principal organic compound may be determined by either process knowledge or test data collected using an appropriate EPA Reference Method. Examples of information that could constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current reactor process vent stream conditions.

40 CFR 60.704(h)(4)(iii)

(iii) The principal organic compound shall be used as the calibration gas for Method 25A.

40 CFR 60.704(h)(4)(iv)

(iv) The span value for Method 25A shall be 300 ppmv.

40 CFR 60.704(h)(4)(v)

(v) Use of Method 25Ais acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

40 CFR 60.704(h)(4)(vi)

(vi) The owner or operator shall demonstrate that the concentration of TOC including methane and ethane measured by Method 25A, corrected to 3 percent oxygen, is below 150 ppm by volume to qualify for the low concentration exclusion in §60.700(c)(8).

40 CFR 60.704(h)(4)(vii)

(vii) The concentration of TOC shall be corrected to 3 percent oxygen using the procedures and equation in paragraph (b)(3) of this section.

40 CFR 60.705 Reporting and recordkeeping requirements.

40 CFR 60.705(a)

(a) Each owner or operator subject to §60.702 shall notify the Administrator of the specific provisions of §60.702 (§60.702(a), (b), or (c)) with which the owner or operator has elected to comply. Notification shall be submitted with the notification of initial start-up required by §60.7(a)(3). If an owner or operator elects at a later date to use an alternative provision of §60.702 with which he or she will comply, then the Administrator shall be notified by the owner or operator 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by §60.704 no later than 180 days from initial start-up.

40 CFR 60.705(b)

(b) Each owner or operator subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the following data measured during each performance test, and also include the following data in the report of the initial performance test required under §60.8. Where a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used or where the reactor process vent stream is introduced as the primary fuel to any size boiler or process heater to comply with §60.702(a), a report containing performance test data need not be submitted, but a report containing the information in §60.705(b)(2)(i) is required. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a combustion device, outlet concentration of TOC, or the TRE index value of a vent stream from a recovery system is determined.

40 CFR 60.705(b)(1)

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(a) through use of either a thermal or catalytic incinerator:

40 CFR 60.705(b)(1)(i)

(i) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at

least every 15 minutes and averaged over the same time period of the performance testing, and

40 CFR 60.705(b)(1)(ii)

(ii) The percent reduction of TOC determined as specified in §60.704(b) achieved by the incinerator, or the concentration of TOC (ppmv, by compound) determined as specified in §60.704(b) at the outlet of the control device on a dry basis corrected to 3 percent oxygen.

40 CFR 60.705(b)(2)

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(a) through use of a boiler or process heater:

40 CFR 60.705(b)(2)(i)

(i) A description of the location at which the vent stream is introduced into the boiler or process heater, and

40 CFR 60.705(b)(2)(ii)

(ii) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 MW (150 million Btu/hr) measured at least every 15 minutes and averaged over the same time period of the performance testing.

40 CFR 60.705(b)(3)

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(b) through use of a smokeless flare, flare design (i.e., steam-assisted, air-assisted or nonassisted), all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

40 CFR 60.705(b)(4)

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.702(c):

40 CFR 60.705(b)(4)(i)

(i) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Administrator), and average exit temperature, of the absorbing liquid measured at least every 15 minutes and averaged over the same time period of the performance testing (both measured while the vent stream is normally routed and constituted); or

40 CFR 60.705(b)(4)(ii)

(ii) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally; or

40 CFR 60.705(b)(4)(iii)

(iii) Where a carbon adsorber is the final recovery device in the recovery system, the total steam mass flow measured at least every 15 minutes and averaged over the same time period of the performance test (full carbon bed cycle), temperature of the carbon bed after regeneration [and within 15 minutes of completion of any cooling cycle(s)], and duration of the carbon bed steaming cycle (all measured while the vent stream is routed and constituted normally); or

40 CFR 60.705(b)(4)(iv)

(iv) As an alternative to §60.705(b)(4)(i), (ii) or (iii), the concentration level or reading indicated by the organics monitoring device at the outlet of the absorber, condenser, or carbon adsorber, measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is normally routed and constituted.

40 CFR 60.705(b)(4)(v)

(v) All measurements and calculations performed to determine the TRE index value of the vent stream.

40 CFR 60.705(c)

(c) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.703(a) and (c) as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where a combustion device is used to comply with §60.702(a), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

40 CFR 60.705(c)(1)

(1) For thermal incinerators, all 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test at which compliance with §60.702(a) was determined.

40 CFR 60.705(c)(2)

(2) For catalytic incinerators, all 3-hour periods of operation during which the average temperature of the vent stream immediately before the catalyst bed is more than 28°C (50°F) below the average temperature of the vent stream during the most recent performance test at which compliance with §60.702(a) was determined. The owner or operator also shall record all 3-hour periods of operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the bed during the most recent performance test at which compliance with §60.702(a) was determined.

40 CFR 60.705(c)(3)

(3) All 3-hour periods of operation during which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test at which compliance with §60.702(a) was determined for boilers or process heaters with a design heat input capacity of less than 44 MW (150 million Btu/hr) where the vent stream is introduced with the combustion air or as a secondary fuel.

40 CFR 60.705(c)(4)

(4) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under §60.702(a).

40 CFR 60.705(d)

(d) Each owner or operator subject to the provisions of this subpart shall keep records of the following:

40 CFR 60.705(d)(1)

(1) Up-to-date, readily accessible continuous records of the flow indication specified under §60.703(a)(2)(i), §60.703(b)(2)(i) and §60.703(c)(1)(i), as well as up-to-date, readily accessible records of all periods and the duration when the vent stream is diverted from the control device.

40 CFR 60.705(d)(2)

(2) Where a seal mechanism is used to comply with §60.703(a)(2)(ii), §60.703(b)(2)(ii), and §60.703(c)(1)(ii), a record of continuous flow is not required. In such cases, the owner or operator shall keep up-to-date, readily accessible records of all monthly visual inspections of the seals as well as readily accessible records of all periods and the duration when the seal mechanism is broken, the bypass line valve position has changed, the serial number of the broken car-seal has changed, or when the key for a lock-and-key type configuration has been checked out.

40 CFR 60.705(e)

(e) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the flare pilot flame monitoring specified under §60.703(b), as well as up-to-date, readily accessible records of all periods of operations in which the pilot flame is absent.

40 CFR 60.705(f)

(f) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under §60.703(d), as well as up-to-date, readily accessible records of periods of

operation during which the parameter boundaries established during the most recent performance test are exceeded. The Administrator may at any time require a report of these data. Where an owner or operator seeks to comply with §60.702(c), periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

40 CFR 60.705(f)(1)

(1) Where an absorber is the final recovery device in a recovery system, and where an organic compound monitoring device is not used:

40 CFR 60.705(f)(1)(i)

(i) All 3-hour periods of operation during which the average absorbing liquid temperature was more than 11°C (20°F) above the average absorbing liquid temperature during the most recent performance test, or

40 CFR 60.705(f)(1)(ii)

(ii) All 3-hour periods of operation during which the average absorbing liquid specific gravity was more than 0.1 unit above, or more than 0.1 unit below, the average absorbing liquid specific gravity during the most recent performance test (unless monitoring of an alternative parameter, which is a measure of the degree of absorbing liquid saturation, is approved by the Administrator, in which case he will define appropriate parameter boundaries and periods of operation during which they are exceeded).

40 CFR 60.705(f)(2)

(2) Where a condenser is the final recovery device in a system, and where an organic compound monitoring device is not used, all 3-hour periods of operation during which the average exit (product side) condenser operating temperature was more than 6°C (11°F) above the average exit (product side) operating temperature during the most recent performance test.

40 CFR 60.705(f)(3)

(3) Where a carbon adsorber is the final recovery device in a system, and where an organic compound monitoring device is not used:

40 CFR 60.705(f)(3)(i)

(i) All carbon bed regeneration cycles during which the total mass steam flow was more than 10 percent below the total mass steam flow during the most recent performance test, or

40 CFR 60.705(f)(3)(ii)

(ii) All carbon bed regeneration cycles during which the temperature of the carbon bed after regeneration (and after completion of any cooling cycle(s)) was more than 10 percent or 5°C greater, whichever is less stringent, than the carbon bed temperature (in degrees Celsius) during the most recent performance test.

40 CFR 60.705(f)(4)

(4) Where an absorber, condenser, or carbon adsorber is the final recovery device in the recovery system and where an organic compound monitoring device is used, all 3-hour periods of operation during which the average organic compound concentration level or reading of organic compounds in the exhaust gases is more than 20 percent greater than the exhaust gas organic compound concentration level or reading measured by the monitoring device during the most recent performance test.

40 CFR 60.705(g)

(g) Each owner or operator of an affected facility subject to the provisions of this subpart and seeking to demonstrate compliance with §60.702(c) shall keep up-to-date, readily accessible records of:

40 CFR 60.705(g)(1)

(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or reactors;

40 CFR 60.705(g)(2)

(2) Any recalculation of the TRE index value performed pursuant to §60.704(f); and

40 CFR 60.705(g)(3)

(3) The results of any performance test performed pursuant to the methods and procedures required by §60.704(d).

40 CFR 60.705(h)

(h) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the flow rate cutoff in §60.700(c)(4) shall keep up-to-date, readily accessible records to indicate that the vent stream flow rate is less than 0.011 scm/min and of any change in equipment or process operation that increases the operating vent stream flow rate, including a measurement of the new vent stream flow rate.

40 CFR 60.705(i)

(i) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the design production capacity provision in §60.700(c)(3) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the design production capacity of the process unit in which the affected facility is located.

40 CFR 60.705(j)

(j) Each owner or operator of an affected facility that seeks to comply with the requirements of this subpart by complying with the low concentration exemption in §60.700(c)(8) shall keep up-to-date, readily accessible records of any change in equipment or process operation that increases the concentration of the vent stream of the affected facility.

40 CFR 60.705(k)

(k) Each owner or operator subject to the provisions of this subpart is exempt from the quarterly reporting requirements contained in §60.7(c) of the General Provisions.

40 CFR 60.705(l)

(l) Each owner or operator that seeks to comply with the requirements of this subpart by complying with the requirements of §60.700(c)(2), (c)(3), or (c)(4) or §60.702 shall submit to the Administrator semiannual reports of the following recorded information. The initial report shall be submitted within 6 months after the initial start-up date.

40 CFR 60.705(l)(1)

(1) Exceedances of monitored parameters recorded under §60.705(c), (f) and (g).

[§60.705(l)(1) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.705(l)(2)

(2) All periods and duration recorded under §60.705(d) when the vent stream is diverted from the control device to the atmosphere.

40 CFR 60.705(l)(3)

(3) All periods recorded under §60.705(f) in which the pilot flame of the flare was absent.

40 CFR 60.705(l)(4)

(4) Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in §60.700(c)(4), including a measurement of the new vent stream flow rate, as recorded under §60.705(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under any of the exemption provisions listed in §60.700(c), except for the total resource effectiveness index greater than 8.0 exemption in §60.700(c)(2), the facility must begin compliance with the requirements set forth in §60.702.

[§60.705(l)(4) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.705(l)(5)

(5) Any change in equipment or process operation, as recorded under paragraph (i) of this section, that increases the design production capacity above the low capacity exemption level in §60.700(c)(3) and the new capacity resulting from the change for the reactor process unit containing the affected facility. These must be reported

as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8. The facility must begin compliance with the requirements set forth in §60.702 or §60.700(d). If the facility chooses to comply with §60.702, the facility may qualify for an exemption under §60.700(c)(2), (4), or (8).

[§60.705(l)(5) amended at 60 FR 58238, Nov. 27, 1995; revised at 65 FR 78279, Dec. 14, 2000]

40 CFR 60.705(l)(6)

(6) Any recalculation of the TRE index value, as recorded under §60.705(g).

40 CFR 60.705(l)(7)

(7) All periods recorded under §60.705(d) in which the seal mechanism is broken or the by-pass line valve position has changed. A record of the serial number of the car-seal or a record to show that the key to unlock the bypass line valve was checked out must be maintained to demonstrate the period, the duration, and frequency in which the bypass line was operated.

40 CFR 60.705(l)(8)

(8) Any change in equipment or process operation that increases the vent stream concentration above the low concentration exemption level in §60.700(c)(8), including a measurement of the new vent stream concentration, as recorded under §60.705(j). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. If the vent stream concentration is above 300 ppmv as measured using Method 18 or above 150 ppmv as measured using Method 25A, a performance test must be completed within the same time period to obtain the vent stream flow rate, heating value, and E_{TOC}. The performance test is subject to the requirements of §60.8 of the General Provisions. Unless the facility qualifies for an exemption under any of the exemption provisions listed in §60.700(c), except for the TRE index greater than 8.0 exemption in §60.700(c)(2), the facility must

begin compliance with the requirements set forth in §60.702.

[§60.705(l)(8) amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.705(m)

(m) The requirements of §60.705(l) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with §60.705(l), provided that they comply with the requirements established by the State.

40 CFR 60.705(n)

(n) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(3) must submit to the Administrator an initial report detailing the design production capacity of the process unit.

40 CFR 60.705(o)

(o) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(4) must submit to the Administrator an initial report including a flow rate measurement using the test methods specified in §60.704.

40 CFR 60.705(p)

(p) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(8) must submit to the Administrator an initial report including a concentration measurement using the test method specified in §60.704.

40 CFR 60.705(q)

(q) The Administrator will specify appropriate reporting and recordkeeping requirements where the owner or operator of an affected facility complies with the standards specified under §60.702 other than as provided under §60.703(a), (b), (c), and (d).

40 CFR 60.705(r)

(r) Each owner or operator whose reactor process vent stream is routed to a distillation unit subject to subpart NNN and who seeks to demonstrate compliance with §60.700(c)(5)

shall submit to the Administrator a process design description as part of the initial report. This process design description must be retained for the life of the process. No other records or reports would be required unless process changes are made.

40 CFR 60.705(s)

(s) Each owner or operator who seeks to demonstrate compliance with §60.702(a) or (b) using a control device must maintain on file a schematic diagram of the affected vent streams, collection system(s), fuel systems, control devices, and bypass systems as part of the initial report. This schematic diagram must be retained for the life of the system.

40 CFR 60.705(t)

(t) Each owner or operator that seeks to demonstrate compliance with §60.700(c)(2) must maintain a record of the initial test for determining the total resource effectiveness index and the results of the initial total resource effectiveness index calculation.

40 CFR 60.706 Reconstruction.

40 CFR 60.706(a)

(a) For purposes of this subpart "fixed capital cost of the new components," as used in §60.15, includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following June 29, 1990. For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

40 CFR 60.707 Chemicals affected by Subpart RRR.

Chemical	CAS No.[1]
Acetaldehyde	75-07-0
Acetaldehyde	75-07-0
Acetic acid	64-19-7
Acetic anhydride	108-24-7

Chemical	CAS No.[1]
Acetone	67-64-1
Acetone cyanohydrin	75-86-5
Acetylene	74-86-2
Acrylic acid	79-10-7
Acrylonitrile	107-13-1
Adipic acid	124-04-9
Adiponitrile	111-69-3
Alcohols, C-11 or lower, mixtures	
Alcohols, C-12 or higher, mixtures	
Alcohols, C-12 or higher, unmixed	
Allyl chloride	107-05-1
Amylene	513-35-9
Amylenes, mixed	
Aniline	62-53-3
Benzene	71-43-2
Benzenesulfonic acid	98-11-3
Benzenesulfonic acid C 10-16 -alkyl derivatives, sodium salts	68081-81-2
Benzyl chloride	100-44-7
Bisphenol A	80-05-7
Brometone	76-08-4
1,3-Butadiene	106-99-0
Butadiene and butene fractions	
n-Butane 1,4-Butanediol	106-97-8
Butanes, mixed 1-Butene	106-98-9
2-Butene	25167-67-3
Butenes, mixed n-Butyl acetate	123-86-4
Butyl acrylate	141-32-2
n-Butyl alcohol	71-36-3
sec-Butyl alcohol	78-92-2
tert-Butyl alcohol	75-65-0
Butylbenzyl phthalate	85-68-7
tert-Butyl hydroperoxide	75-91-2
2-Butyne-1,4-diol	110-65-6
Butyraldehyde	123-72-8
Butyric anhydride	106-31-0
Caprolactam	105-60-2
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chloroacetic acid	79-11-8
Chlorobenzene	108-90-7
Chlorodifluoromethane	75-45-6
Chloroform	67-66-3
p-Chloronitrobenzene	100-00-5
Citric acid	77-92-9
Cumene	98-82-8
Cumene hydroperoxide	80-15-9

Chemical	CAS No.[1]
Cyanuric chloride	108-77-0
Cyclohexane	110-82-7
Cyclohexane, oxidized	68512-15-2
Cyclohexanol	108-93-0
Cyclohexanone	108-94-1
Cyclohexanone oxime	100-64-1
Cyclohexene	110-83-8
Cyclopropane	75-19-4
Diacetone alcohol	123-42-2
1,4-Dichlorobutene	110-57-6
3,4-Dichloro-1-butene	64037-54-3
Dichlorodifluoromethane	75-71-8
Dichlorodimethylsilane	75-78-5
Dichlorofluoromethane	75-43-4
Diethanolamine	111-42-2
Diethylbenzene	25340-17-4
Diethylene glycol	111-46-6
Di-isodecyl phthalate	26761-40-0
Dimethyl terephthalate	120-61-6
2,4-(and 2,6)- dinitrotoluene	121-14-2
	606-20-2
Dioctyl phthalate	117-81-7
Dodecene	25378-22-7
Dodecylbenzene, nonlinear Dodecylbenzenesulfonic acid	27176-87-0
Dodecylbenzenesulfonic acid, sodium salt	25155-30-0
Epichlorohydrin	106-89-8
Ethanol	64-17-5
Ethanolamine	141-43-5
Ethyl acetate	141-78-6
Ethyl acrylate	140-88-5
Ethylbenzene	100-41-4
Ethyl chloride	75-00-3
Ethylene	74-85-1
Ethylene dibromide	106-93-4
Ethylene dichloride	107-06-2
Ethylene glycol	107-21-1
Ethylene glycol monobutyl ether	111-76-2
Ethylene glycol monoethyl ether acetate	111-15-9
Ethylene glycol monomethyl ether	109-86-4
Ethylene oxide	75-21-8
2-Ethylhexyl alcohol	104-76-7
(2-Ethylhexyl) amine	104-75-6
6-Ethyl-1,2,3,4-tetrahydro-9,10-anthracenedione	15547-17-8
Formaldehyde	50-00-0
Glycerol	56-81-5
n-Heptane	142-82-5

Chemical	CAS No.[1]
Heptenes (mixed)	
Hexamethylene diamine	124-09-4
Hexamethylene diamine adipate	3323-53-3
Hexamethylenetetramine	100-97-0
Hexane	110-54-3
Isobutane	75-28-5
Isobutanol	78-83-1
Isobutylene	115-11-7
Isobutyraldehyde	78-84-2
Isopentane	78-78-4
Isoprene	78-79-5
Isopropanol	67-63-0
Ketene	463-51-4
Linear alcohols, ethoxylated, mixed Linear alcohols, ethoxylated, and sulfated, sodium salt, mixed Linear alcohols, sulfated, so-dium salt, mixed Linear alkylbenzene	123-01-3
Maleic anhydride	108-31-6
Mesityl oxide	141-79-7
Methanol	67-56-1
Methylamine	74-39-5
ar-Methylbenzenediame	25376-45-8
Methyl chloride	74-87-3
Methylene choloride	75-09-2
Methyl ethyl ketone	78-93-3
Methyl isobutyl ketone	108-10-1
Methylmethacrylate	80-62-6
1-Methyl-2-pyrrolidone	872-50-4
Methyl tert-butyl ether Naphthalene	91-20-3
Nitrobenzene	98-95-3
1-Nonene	27215-95-8
Nonyl alcohol	143-08-8
Nonylphenol	25154-52-3
Nonylphenol, ethoxylated	9016-45-9
Octene	25377-83-7
Oil-soluble petroleum sulfonate, calcium salt	
Pentaerythritol	115-77-5
3-Pentenenitrile	4635-87-4
Pentenes, mixed	109-67-1
Perchloroethylene	127-18-4
Phenol	108-95-2
1-Phenylethyl hydroperoxide	3071-32-7
Phenylpropane	103-65-1
Phosgene	75-44-5
Phthalic anhydride	85-44-9
Propane	74-98-6
Propionaldehyde	123-38-6

Chemical	CAS No.[1]
Propyl alcohol	71-23-8
Propylene	115-07-1
Propylene glycol	57-55-6
Propylene oxide	75-56-9
Sorbitol	50-70-4
Styrene	100-42-5
Terephthalic acid	100-21-0
Tetraethyl lead	78-00-2
Tetrahydrofuran Tetra (methyl-ethyl) lead	109-99-9
Tetramethyl lead	75-74-1
Toluene	108-88-3
Toluene-2,4-diamine	95-80-7
Toluene-2,4-(and, 2,6-diiso-cyanate (80/20 mixture)	26471-62-5
1,1,1-Trichloroethane	71-55-6
1,1,2-Trichloroethane	79-00-5
Trichloroethylene	79-01-6
Trichlorofluoromethane	75-69-4
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Triethanolamine	102-71-6
Triethylene glycol	112-27-6
Vinyl acetate	108-05-4
Vinyl chloride	75-01-4
Vinylidene chloride	75-35-4
m-Xylene	108-38-3
o-Xylene	95-47-6
p-Xylene	106-42-3
Xylenes (mixed)	1330-20-7

[1] CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

[§60.707 table amended at 60 FR 58238, Nov. 27, 1995]

40 CFR 60.708 Delegation of Authority.

40 CFR 60.708(a)

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be

retained by the Administrator and not transferred to a State.

40 CFR 60.708(b)

(b) Authorities which will not be delegated to States: §60.703(e).

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY

PART 60--STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES—
Subpart Kb -- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Source: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

§60.110b - Applicability and designation of affected facility.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 40 cubic meters (m^3) that is used to store volatile organic liquids (VOLs) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) Except as specified in paragraphs (a) and (b) of §60.116b, storage vessels with design capacity less than 75 m^3 are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(c) Except as specified in paragraphs (a) and (b) of §60.116b, vessels either with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(e) *Alternative means of compliance*

(1) Option to comply with part 65. Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR Part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment

meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 78275, Dec. 14, 2000]

§60.111b - Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

(a) *Bulk gasoline plant* means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

(b) *Condensate* means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

(c) *Custody transfer* means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

(d) *Fill* means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

(e) *Gasoline service station* means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

(f) *Maximum true vapor pressure* means the equilibrium partial pressure exerted by the stored VOL at the temperature equal to the highest calendar-month average of the VOL

storage temperature for VOLs stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOLs stored at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference -- see §60.17); or

(2) As obtained from standard reference texts; or

(3) As determined by ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17);

(4) Any other method approved by the Administrator.

(g) ***Reid vapor pressure*** means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquefied petroleum gases, as determined by ASTM D323-82 or 94 (incorporated by reference -- see §60.17).

(h) ***Petroleum*** means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(i) ***Petroleum liquids*** means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

(j) ***Storage vessel*** means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors; or

(2) Subsurface caverns or porous rock reservoirs.

(k) ***Volatile organic liquid (VOL)*** means any organic liquid which can emit volatile organic compounds into the atmosphere except those VOLs that emit only those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone. These compounds are identified in EPA statements on ozone abatement policy for SIP revisions (42 FR 35314, 44 FR 32042, 45 FR 32424, and 45 FR 48941).

(l) *Waste* means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000]

§60.112b - Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating

roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained

in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a

VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

[52 FR 11429, Apr. 8, 1987, as amended at 62 FR 52641, Oct. 8, 1997]

§60.113b - Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings

in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial

fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements

as specified in the general control device requirements, §60.18 (e) and (f).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

§60.114b - Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

§60.115b - Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and

(b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§60.116b - Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m^3 is subject to no provision of this subpart other than those required by this paragraph.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid

exceeds the respective maximum true vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference -- see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference -- see §60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000]

§60.117b - Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

40 CFR 60 Subpart DD--Standards of Performance for Grain Elevators

Source: 43 FR 34347, Aug. 3, 1978, unless otherwise noted.

Sec. 60.300 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under Sec. 60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

[43 FR 34347, Aug. 3, 1978, as amended at 52 FR 42434, Nov. 5, 1988]

Sec. 60.301 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Grain means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(b) Grain elevator means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.

(c) Grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m^3 (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

(d) Permanent storage capacity means grain storage capacity which is inside a building, bin, or silo.

(e) Railcar means railroad hopper car or boxcar.

(f) Grain storage elevator means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m^3 (ca. 1 million bushels).

(g) Process emission means the particulate matter which is collected by a capture system.

(h) Fugitive emission means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.

(i) Capture system means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.

(j) Grain unloading station means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

(k) Grain loading station means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.

(l) Grain handling operations include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpers, cleaners, trippers, and the headhouse and other such structures.

(m) Column dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.

(n) Rack dryer means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).

(o) Unloading leg means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

[43 FR 34347, Aug. 3, 1978, as amended at 65 FR 61759, Oct. 17, 2000]

Sec. 60.302 Standard for particulate matter.

(a) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any:

(1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).

(2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

(b) On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:

(1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).

(2) Exhibits greater than 0 percent opacity.

(c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:

(1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

(2) Any grain handling operation which exhibits greater than 0 percent opacity.

(3) Any truck loading station which exhibits greater than 10 percent opacity.

(4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

(d) The owner or operator of any barge or ship unloading station shall operate as follows:

(1) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper.

(2) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft^3/bu).

(3) Rather than meet the requirements of paragraphs (d)(1) and (2) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Administrator's satisfaction that they would reduce emissions of particulate matter to the same level or less.

Sec. 60.303 Test methods and procedures.

(a) In conducting the performance tests required in Sec. 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec. 60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in Sec. 60.302 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.

(2) Method 2 shall be used to determine the ventilation volumetric flow rate.

(3) Method 9 and the procedures in Sec. 60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For Method 5, Method 17 may be used.

[54 FR 6674, Feb. 14, 1989]

Sec. 60.304 Modifications.

(a) The factor 6.5 shall be used in place of "annual asset guidelines repair allowance percentage," to determine whether a capital expenditure as defined by Sec. 60.2 has been made to an existing facility.

(b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

(1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.

(2) The installation of automatic grain weighing scales.

(3) Replacement of motor and drive units driving existing grain handling equipment.

(4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.

10.11 Attachment 11 - Applicable State of Illinois Rules and Regulations, Title 35: Environmental Protection, Subtitle B: Air Pollution, Chapter I: Pollution Control Board, Subchapter c: Emission Standards and Limitations for Stationary Sources

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS

SUBPART A: GENERAL

Section

212.100 Scope and Organization
212.107 Measurement Method for Visible Emissions
212.108 Measurement Methods for PM-10 Emissions and Condensable PM-10 Emissions
212.109 Measurement Methods for Opacity
212.110 Measurement Methods For Particulate Matter
212.111 Abbreviations and Units
212.112 Definitions
212.113 Incorporations by Reference

SUBPART B: VISIBLE EMISSIONS

Section

212.121 Opacity Standards (Repealed)
212.122 Visible Emissions Limitations for Certain Emission Units For Which Construction or Modification Commenced On or After April 14, 1972
212.123 Visible Emissions Limitations for All Other Emission Units
212.124 Exceptions
212.125 Determination of Violations
212.126 Adjusted Opacity Standards Procedures

SUBPART D: PARTICULATE MATTER EMISSIONS FROM INCINERATORS

Section

212.181 Limitations for Incinerators
212.182 Aqueous Waste Incinerators
212.183 Certain Wood Waste Incinerators
212.184 Explosive Waste Incinerators
212.185 Continuous Automatic Stoking Animal Pathological Waste Incinerators

SUBPART E: PARTICULATE MATTER EMISSIONS FROM FUEL COMBUSTION EMISSION UNITS

Section

212.201 Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively Located in the Chicago Area
212.202 Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively Located Outside the Chicago Area
212.203 Controlled Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively
212.204 Emission Units For Which Construction or Modification Commenced On or After April 14, 1972, Using Solid Fuel Exclusively
212.205 Coal-fired Industrial Boilers For Which Construction or Modification Commenced Prior to April 14, 1972, Equipped with Flue Gas Desulfurization Systems
212.206 Emission Units Using Liquid Fuel Exclusively
212.207 Emission Units Using More Than One Type of Fuel
212.208 Aggregation of Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972
212.209 Village of Winnetka Generating Station (Repealed)
212.210 Emissions Limitations for Certain Fuel Combustion Emission Units Located in the Vicinity of Granite City

SUBPART K: FUGITIVE PARTICULATE MATTER

Section

212.301 Fugitive Particulate Matter
212.302 Geographical Areas of Application
212.304 Storage Piles
212.305 Conveyor Loading Operations
212.306 Traffic Areas
212.307 Materials Collected by Pollution Control Equipment
212.308 Spraying or Choke-Feeding Required
212.309 Operating Program
212.310 Minimum Operating Program
212.312 Amendment to Operating Program
212.313 Emission Standard for Particulate Collection Equipment
212.314 Exception for Excess Wind Speed
212.315 Covering for Vehicles
212.316 Emissions Limitations for Emission Units in Certain Areas

SUBPART L: PARTICULATE MATTER EMISSIONS FROM PROCESS EMISSION UNITS

Section

212.321 Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972
212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972
212.323 Stock Piles
212.324 Process Emission Units in Certain Areas

SUBPART N: FOOD MANUFACTURING

Section

212.361 Corn Wet Milling Processes
212.362 Emission Units in Certain Areas

SUBPART O: PETROLEUM REFINING, PETROCHEMICAL AND CHEMICAL MANUFACTURING

Section

212.381 Catalyst Regenerators of Fluidized Catalytic Converters

SUBPART Q: STONE, CLAY, GLASS AND CONCRETE MANUFACTURING

Section

212.421 Portland Cement Processes For Which Construction or Modification Commenced On or After April 14, 1972
212.422 Portland Cement Manufacturing Processes
212.423 Emission Limits for the Portland Cement Manufacturing Plant Located in LaSalle County, South of the Illinois River
212.424 Fugitive Particulate Matter Control for the Portland Cement Manufacturing Plant and Associated Quarry Operations Located in LaSalle County, South of the Illinois River
212.425 Emission Units in Certain Areas

SUBPART R: PRIMARY AND FABRICATED METAL PRODUCTS AND MACHINERY MANUFACTURE

Section

212.441 Steel Manufacturing Processes
212.442 Beehive Coke Ovens
212.443 Coke Plants
212.444 Sinter Processes
212.445 Blast Furnace Cast Houses
212.446 Basic Oxygen Furnaces
212.447 Hot Metal Desulfurization Not Located in the BOF
212.448 Electric Arc Furnaces
212.449 Argon-Oxygen Decarburization Vessels
212.450 Liquid Steel Charging
212.451 Hot Scarfing Machines
212.452 Measurement Methods
212.455 Highlines on Steel Mills
212.456 Certain Small Foundries
212.457 Certain Small Iron-Melting Air Furnaces
212.458 Emission Units in Certain Access

SUBPART S: AGRICULTURE

Section

212.461 Grain Handling and Drying in General
212.462 Grain Handling Operations
212.463 Grain Drying Operations
212.464 Sources in Certain Areas

SUBPART T: CONSTRUCTION AND WOOD PRODUCTS

Section

212.681 Grinding, Woodworking, Sandblasting and Shotblasting

SUBPART U: ADDITIONAL CONTROL MEASURES

Section

212.700 Applicability
212.701 Contingency Measure Plans, Submittal and Compliance Date
212.702 Determination of Contributing Sources
212.703 Contingency Measure Plan Elements
212.704 Implementation
212.705 Alternative Implementation

Appendix A Rule into Section Table
Appendix B Section into Rule Table
Appendix C Past Compliance Dates
Illustration A Allowable Emissions From Solid Fuel Combustion Emission Sources Outside Chicago (Repealed)

Illustration B Limitations for all New Process Emission Sources (Repealed)
Illustration C Limitations for all Existing Process Emission Sources (Repealed)
Illustration D McCook Vicinity Map
Illustration E Lake Calumet Vicinity Map
Illustration F Granite City Vicinity Map

AUTHORITY: Implementing Section 10 and authorized by Section 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/10, 27 and 28.5].

SOURCE: Adopted as Chapter 2: Air Pollution, Rules 202 and 203: Visual and Particulate Emission Standards and Limitations, R71 23, 4 PCB 191, filed and effective April 14, 1972; amended in R77-15, 32 PCB 403, at 3 Ill. Reg. 5, p. 798, effective February 3, 1979; amended in R78-10, 35 PCB 347, at 3 Ill. Reg. 39, p. 184, effective September 28, 1979; amended in R78-11, 35 PCB 505, at 3 Ill. Reg. 45, p. 100, effective October 26, 1979; amended in R78-9, 38 PCB 411, at 4 Ill. Reg. 24, p. 514, effective June 4, 1980; amended in R79-11, 43 PCB 481, at 5 Ill. Reg. 11590, effective October 19, 1981; codified at 7 Ill. Reg. 13591; amended in R82-1 (Docket A) at 10 Ill. Reg. 12637, effective July 9, 1986; amended in R85-33 at 10 Ill. Reg. 18030, effective October 7, 1986; amended in R84-48 at 11 Ill. Reg. 691, effective December 18, 1986; amended in R84-42 at 11 Ill. Reg. 1410, effective December 30, 1986; amended in R82-1 (Docket B) at 12 Ill. Reg. 12492, effective July 13, 1988; amended in R91-6 at 15 Ill. Reg. 15708, effective October 4, 1991; amended in R89-7(B) at 15 Ill. Reg. 17710, effective November 26, 1991; amended in R91-22 at 16 Ill. Reg. 7880, effective May 11, 1992; amended in R91-35 at 16 Ill. Reg. 8204, effective May 15, 1992; amended in R93-30 at 18 Ill. Reg. 11587, effective July 11, 1994; amended in R96-5 at 20 Ill. Reg.7605, effective May 22, 1996).

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS

SUBPART A: GENERAL

Section 212.100 Scope and Organization

a) This Part contains standards and limitations for visible and particulate matter emissions from stationary emission units.

b) Permits for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201.

c) Notwithstanding the provisions of this Part, the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.

d) This Part includes Subparts which are arranged as follows:

1) Subpart A: General Provisions;

2) Subpart B: Visible Emissions;

3) Subparts C-J: Incinerators and Fuel Combustion Emission Units;

4) Subparts K-M: Fugitive and Process Emission Units;

5) Subparts N-T: Site specific and industry specific rules; and

6) Subpart U: Additional control measures.

e) Rules have been grouped for the convenience of the public; the scope of each is determined by its language and history.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.107 Measurement Method for Visible Emissions

For both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Subpart shall not apply to Section 212.301 of this Part.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.108 Measurement Methods for PM-10 Emissions and Condensable PM-10 Emissions

a) Emissions of PM_{10} shall be measured by any of the following methods at the option of the owner or operator of an emission unit.

1) Method 201, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.

2) Method 201A, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.

3) Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart, provided that all particulate matter measured by Method 5 shall be considered to be PM-10.

b) Emissions of condensable PM_{10} shall be measured by Method 202, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.

c) The volumetric flow rate and gas velocity for stack test methods shall be determined in accordance with Methods 1, 1A, 2, 2A, 2C, 2D, 3, or 4, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart.

d) Upon a written notification by the Illinois Environmental Protection Agency (Agency), the owner or operator of a PM-10 emission unit subject to this Section shall conduct the applicable testing for PM-10 emissions, condensable PM-10 emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Agency within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Agency.

e) A person planning to conduct testing for PM-10 or condensable PM-10 emissions to demonstrate compliance shall give written notice to the Agency of that intent. Such notification shall be given at least thirty (30) days prior to initiation of the test unless a shorter pre-notification is agreed to by the Agency. Such notification shall state the specific test methods from subsection (a) of this Section that will be used.

f) The owner or operator of an emission unit subject to this Section shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

g) This Section shall not affect the authority of the United States Environmental Protection Agency (USEPA) under Section 114 of the Clean Air Act (CAA) (42 U.S.C. § 7414 (1990)).

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.109 Measurement Methods for Opacity

Except as otherwise provided in this Part, and except for the methods of data reduction when applied to Sections 212.122 and 212.123 of this Part, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in Section 212.113 of this Subpart, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS
SUBPART A: GENERAL

Section 212.110 Measurement Methods For Particulate Matter

a) Measurement of particulate matter emissions from stationary emission units subject to this Part shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E, as incorporated by reference in Section 212.113 of this Subpart.

b) The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4, incorporated by reference in Section 212.113 of this Subpart.

c) Upon a written notification by the Agency, the owner or operator of a particulate matter emission unit subject to this Part shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person’s own expense, to demonstrate compliance. Such test results shall be submitted to the Agency within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Agency.

d) A person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Agency of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Agency. Such notification shall state the specific test methods from this Section that will be used.

e) The owner or operator of an emission unit subject to this Part shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

f) This Section shall not affect the authority of the USEPA under Section 114 of the CAA.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.111 Abbreviations and Units

a. The following abbreviations are used in this Part:

Btu	British thermal units (60 1/4°F)
dscf	dry standard cubic foot
ft	foot
ft^2	square feet
fpm	feet per minute
gal	gallon
gr	grains
gr/scf	grains per standard cubic foot
gr/dscf	grains per dry standard cubic foot
hr	hour
J	Joule
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour
km	kilometer
L	liter
lbs	pounds
lbs/hr	pounds per hour
lbs/MBtu	pounds per million Btu
m	meter
m^2	square meters
mph	miles per hour
mg	milligram
mg/scm	milligrams per standard cubic meter
mg/dscm	milligrams per dry standard cubic meter
mg/L	milligrams per liter
Mg	megagram, metric ton or tonne
mi	mile
MBtu	million British thermal units
MBtu/hr	million British thermal units per hour
MW	megawatt; one million watts

MW-hr	megawatt-hour
ng	nanogram; one billionth of a gram
ng/J	nanograms per Joule
scf	standard cubic foot
scfm	standard cubic feet per minute
scm	standard cubic meter
T	short ton (2000 lbs)
yd^2	square yards

b. The following conversion factors have been used in this Part:

English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg
MBtu/hr	0.293 MW
1 lb/MBtu	1.548 kg/MW-hr or 430 ng/J
1 mi	1.61 km
1 gr	64.81 mg
1 gr/scf	2289 mg/scm
1 ft^2	0.0929 m^2
1 ft	0.3048 m
1 gal	3.785 L

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.112 Definitions

The definitions of 35 Ill. Adm. Code 201 and 211 apply to this Part.

(Source: Added and codified at 7 Ill. Reg. 13591)

Section 212.113 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

a) 40 CFR part 60, Appendix A (1991):

1) Method 1: Sample and Velocity Traverses for Stationary Sources;

2) Method 1A: Sample and Velocity Traverses for Stationary Source with Small Stacks or Ducts;

3) Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S pilot tube);

4) Method 2A: Direct Measurement of Gas Volume Through Pipes and Small Ducts;

5) Method 2C: Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pilot Tube);

6) Method 2D: Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts;

7) Method 3: Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight;

8) Method 4: Determination of Moisture Content in Stack Gases;

9) Method 5: Determination of Particulate Emissions From Stationary Sources;

10) Method 5A: Determination of Particulate Emissions From the Asphalt Processing and Asphalt Roofing Industry;

11) Method 5D: Determination of Particulate Matter Emissions From Positive Pressure Fabric Filters;

12) Method 5E: Determination of Particulate Emissions From the Wool Fiberglass Insulation Manufacturing Industry;

13) Method 9: Visual Determination of the Opacity of Emissions from Stationary Sources;

14) Method 22: Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares.

b) 40 CFR part 51 Appendix M (1994):

1) Method 201: Determination of PM-10 Emissions;

2) Method 201A: Determination of PM-10 Emissions (Constant Sampling Rate Procedure);

3) Method 202: Determination of Condensable Particulate Emissions from Stationary Sources.

c) 40 CFR 60.672(b), (c), (d) and (e) (1991).

d) 40 CFR 60.675(c) and (d) (1991).

e) ASAE Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers, American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085.

f) U.S. Sieve Series, ASTM-E11, American Society of Testing Materials, 1916 Race Street, Philadelphia, PA 19103.

g) Standard Methods for the Examination of Water and Wastewater, Section 209C, "Total Filterable Residue Dried at 103 - 105°C," 15th Edition, 1980, American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C. 20005.

h) "Guideline on the Identification and Use of Air Quality Data Affected by Exceptional Events," U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards Monitoring and Data Analysis Division, Research Triangle Park, N.C. 27711, EPA-450/4-86-007 July 1986.

i) "Guideline on Air Quality Models (Revised)," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, EPA-450/2-78-027R July 1986.

j) 40 CFR 50, Appendix K (1992), "Interpretation of the National Ambient Air Quality Standard for Particulate Matter".

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS
SUBPART B: VISIBLE EMISSIONS

Section 212.121 Opacity Standards (Repealed)

(Source: Repealed at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.122 Visible Emissions Limitations for Certain Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

a) No person shall cause or allow the emission of smoke or other particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced on or after April 14, 1972, with actual heat input greater than 73.2 MW (250 MBtu/hr), having an opacity greater than 20 percent.

b) The emissions of smoke or other particulate matter from any such emission unit may have an opacity greater than 20 percent but not greater than 40 percent for a period or periods aggregating 3 minutes in any 60 minute period, providing that such opaque emission permitted during any 60 minute period shall occur from only one such emission

unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person and provided further that such opaque emissions permitted from each such fuel combustion emission unit shall be limited to 3 times in any 24 hour period.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.123 Visible Emissions Limitations for All Other Emission Units

a) No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to Section 212.122 of this Subpart.

b) The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.124 Exceptions

a) Sections 212.122 and 212.123 of this Subpart shall apply during times of startup, malfunction and breakdown except as provided in the operating permit granted in accordance with 35 Ill. Adm. Code 201.

b) Sections 212.122 and 212.123 of this Subpart shall not apply to emissions of water or water vapor from an emission unit.

c) An emission unit which has obtained an adjusted opacity standard pursuant to Section 212.126 of this Subpart shall be subject to that standard rather than the limitations of Section 212.122 or 212.123 of this Subpart.

d) Compliance with the particulate regulations of this Part shall constitute a defense.

1) For all emission units which are not subject to Chapters 111 or 112 of the CAA and Sections 212.201,

212.202, 212.203 or 212.204 of this Part but which are subject to Sections 212.122 or 212.123 of this Subpart: the opacity limitations of Sections 212.122 and 212.123 of this Subpart shall not apply if it is shown that the emission unit was, at the time of such emission, in compliance with the applicable particulate emissions limitations of Subparts D through T of this Part.

2) For all emission units which are not subject to Chapters 111 or 112 of the CAA but which are subject to Sections 212.201, 212.202, 212.203 or 212.204 of this Part:

A) An exceedance of the limitations of Section 212.122 or 212.123 of this Subpart shall constitute a violation of the applicable particulate limitations of Subparts D through T of this Part. It shall be a defense to a violation of the applicable particulate limitations if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions for the unit and the control devices, and in accordance with Method 5, 40 CFR part 60, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the particulate emission limitations.

B) It shall be a defense to an exceedance of the opacity limit if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions of the emission unit and the control devices, and in accordance with Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the allowable particulate emissions limitation while, simultaneously, having visible emissions equal to or greater than the opacity exceedance as originally observed.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.125 Determination of Violations

Violations of Sections 212.122 and 212.123 of this Subpart shall be determined:

a) By visual observations conducted in accordance with Section 212.109 of this Part; or

b) By the use of a calibrated smoke evaluation device approved by the Agency as specified in Subpart J of 35 Ill. Adm. Code 201; or

c) By the use of a smoke monitor located in the stack and approved by the Agency as specified in Subpart J or L of 35 Ill. Adm. Code 201.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.126 Adjusted Opacity Standards Procedures

a) Pursuant to Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], and in accordance with 35 Ill. Adm. Code 106, Subpart E, provisions for adjusted standards for visible emissions for emission units subject to Sections 212.201, 212.202, 212.203, or 212.204 of this Part shall be granted by the Board to the extent consistent with federal law based upon a demonstration by such owner or operator that the results of a performance test conducted pursuant to this Section, Section 212.110 of this Part, and Methods 5 and 9 of 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, show that the emission unit meets the applicable particulate emission limitations at the same time that the visible emissions exceed the otherwise applicable standards of Sections 212.121 through 212.125 of this Subpart. Such adjusted opacity limitations:

1) Shall be specified as a condition in operating permits issued pursuant to 35 Ill. Adm. Code 201 and Section 39.5 of the Act;

2) Shall substitute for that limitation otherwise applicable;

3) Shall not allow an opacity greater than 60 percent at any time; and

4) Shall allow opacity for one six-minute averaging period in any 60 minute period to exceed the adjusted opacity standard.

b) For the purpose of establishing an adjusted opacity standard, any owner or operator of an emission unit which meets the requirements of subsection (a) of this Section, may request the Agency to determine the average opacity of the emissions from the emission unit during any performance tests conducted pursuant to Section 212.110 of this Part and Methods 5 and 9 of 40 CFR part 60, Appendix

A, incorporated by reference in Section 212.113 of this Part. The Agency shall refuse to accept the results of emissions tests if not conducted pursuant to this Section.

c) Any request for the determination of the average opacity of emissions shall be made in writing, shall include the time and place of the performance test and test specifications and procedures, and shall be submitted to the Agency at least thirty (30) days before the proposed test date.

d) The Agency will advise the owner or operator of an emission unit which has requested an opacity determination of any deficiencies in the proposed test specifications and procedures as expeditiously as practicable but no later than ten (10) days prior to the proposed test date so as to minimize any disruption of the proposed testing schedule.

e) The owner or operator shall allow Agency personnel to be present during the performance test.

f) The method for determining an adjusted opacity standard is as follows:

1) A minimum of 60 consecutive minutes of opacity readings obtained in accordance with Test Method 9, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, shall be taken during each sampling run. Therefore, for each performance test (which normally consists of three sampling runs), a total of three sets of opacity readings totaling three hours or more shall be obtained. Concurrently, the particulate emissions data from three sampling runs obtained in accordance with Test Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, shall also be obtained.

2) After the results of the performance tests are received from the emission unit, the status of compliance with the applicable particulate emissions limitation shall be determined by the Agency. In accordance with Test Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, the average of the results of the three sampling runs must be less than the allowable particulate emission rate in order for the emission unit to be considered in compliance. If compliance is demonstrated, then only those test runs with results which are less than the allowable particulate emission rate shall be considered as

acceptable test runs for the purpose of establishing an adjusted opacity standard.

3) The opacity readings for each acceptable sampling run shall be divided into sets of 24 consecutive readings. The six (6) minute average opacity for each set shall be determined by dividing the sum of the 24 readings within each set by 24.

4) The second highest six (6) minute average opacity obtained in subsection (f)(3) of this Section shall be selected as the adjusted opacity standard.

g) The owner or operator shall submit a written report of the results of the performance test to the Agency at least thirty (30) days prior to filing a petition for an adjusted standard with the Board.

h) If, upon review of such owner's or operator's written report of the results of the performance tests, the Agency determines that the emission unit is in compliance with all applicable emission limitations for which the performance tests were conducted, but fails to comply with the requirements of Section 212.122 or 212.123 of this Subpart, the Agency shall notify the owner or operator as expeditiously as practicable, but no later than twenty (20) days after receiving the written report of any deficiencies in the results of the performance tests.

i) The owner or operator may petition the Board for an adjusted visible emission standard pursuant to 35 Ill. Adm. Code 106.Subpart E. In addition to the requirements of 35 Ill. Adm. Code 106.Subpart E, the petition shall include the following information:

1) A description of the business or activity of the petitioner, including its location and relevant pollution control equipment;

2) The quantity and type of materials discharged from the emission unit or control equipment for which the adjusted standard is requested;

3) A copy of any correspondence between the petitioner and the Agency regarding the performance tests which form the basis of the adjusted standard request;

4) A copy of the written report submitted to the Agency pursuant to subsection (g) of this Section;

5) A statement that the performance tests were conducted in accordance with this Section and the conditions

and procedures accepted by the Agency pursuant to Section 212.110 of this Part;

6) A statement regarding the specific limitation requested; and

7) A statement as to whether the Agency has sent notice of deficiencies in the results of the performance test pursuant to subsection (h) of this Section and a copy of said notice.

j) In order to qualify for an adjusted standard the owner or operator must justify as follows:

1) That the performance tests were conducted in accordance with Test Methods 5 and 9, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, and the conditions and procedures accepted by the Agency pursuant to Section 212.110 of this Part;

2) That the emission unit and associated air pollution control equipment were operated and maintained in a manner so as to minimize the opacity of the emissions during the performance tests; and

3) That the proposed adjusted opacity standard was determined in accordance with subsection (f) of this Section.

k) Nothing in this Section shall prevent any person from initiating or participating in a rulemaking, variance, or permit appeal proceeding before the Board.

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS
SUBPART E: PARTICULATE MATTER EMISSIONS FROM FUEL COMBUSTION EMISSION UNITS

Section 212.201 Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively Located in the Chicago Area

No person shall cause or allow the emission of particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively, located in the Chicago major metropolitan area, to exceed 0.15 kg of particulate matter per MW-hr of actual heat input in any one hour period (0.10 lbs/MBtu/hr) except as provided in Section 212.203 of this Subpart.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.202 Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively Located Outside the Chicago Area

No person shall cause or allow the emission of particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively, which is located outside the Chicago major metropolitan area, to exceed the limitations specified in the table below in any one hour period except as provided in Section 212.203 of this Subpart.

METRIC UNITS

H (Range) MW Megawatts	S Kg/MW
Less than or equal to 2.93	1.55
Greater than 2.93 but smaller than 73.2	$3.33\ H^{-0.715}$
Greater than or equal to 73.2	0.155

ENGLISH UNITS

H (Range) MBtu/hr	S lbs/MBtu
Less than or equal to 10	1.0
Greater than 10 but smaller than 250	$5.18H^{-0.715}$
Greater than or equal to 250	0.1

Where:

S = Allowable emission standard in lbs/MBtu/hr or kg/MW of actual heat input, and

H = Actual heat input in MBtu/hr or MW-hr

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.203 Controlled Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively

Notwithstanding Sections 212.201 and 212.202 of this Subpart, any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively may, in any one hour period, emit up to, but not exceed 0.31 kg/MW-hr (0.20 lbs/MBtu), if as of April 14, 1972, any one of the following conditions was met:

a) The emission unit had an hourly emission rate based on original design or equipment performance test conditions, whichever is stricter, which was less than 0.31 kg/MW-hr (0.20 lbs/MBtu) of actual heat input, and the emission control of such emission unit is not allowed to degrade more than 0.077 kg/MW-hr (0.05 lbs/MBtu) from such original design or acceptance performance test conditions; or

b) The emission unit was in full compliance with the terms and conditions of a variance granted by the Pollution Control Board (Board) sufficient to achieve an hourly emission rate less than 0.31 kg/MW-hr (0.20 lbs/MBtu), and construction has commenced on equipment or modifications prescribed under that program; and emission control of such emission unit is not allowed to degrade more than 0.077 kg/MW-hr (0.05 lbs/MBtu) from original design or equipment performance test conditions, whichever is stricter; or

c) The emission unit had an hourly emission rate based on original design or equipment performance test conditions, whichever is stricter, which was less than 0.31 kg/MW-hr (0.20 lbs/MBtu) of actual heat input, and the emission control of such emission unit is not allowed to degrade more than 0.077 kg/MW-hr (0.05 lbs/MBtu) from that rate demonstrated by the most recent stack test, submitted to and accepted by the Agency prior to April 1, 1985, provided that:

1) Owners and operators of emission units subject to this subsection shall have applied for a new operating permit by January 9, 1987; and

2) The application for a new operating permit shall have included a demonstration that the proposed emission rate, if greater than the emission rate allowed by subsections (a) or (b) of this Section, will not under any foreseeable operating conditions and potential meteorological conditions cause or contribute to a violation of any applicable primary or secondary ambient air quality standard for particulate matter, or violate any applicable prevention of significant deterioration (PSD) increment, or violate 35 Ill. Adm. Code 201.141.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.204 Emission Units For Which Construction or Modification Commenced On or After April 14, 1972,Using Solid Fuel Exclusively

No person shall cause or allow the emission of particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced on or after April 14, 1972, using solid fuel exclusively to exceed 0.15 kg of particulate matter per MW-hr of actual heat input (0.1 lbs/MBtu) in any one hour period unless Section 212.202, 212.203, or 212.205 applies.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.205 Coal-fired Industrial Boilers For Which Construction or Modification Commenced Prior to April 14, 1972, Equipped with Flue Gas Desulfurization Systems

Notwithstanding Sections 212.201 through 212.204 of this Subpart, no person shall cause or allow the emission of particulate matter into the atmosphere from coal-fired industrial boilers equipped with flue gas desulfurization systems for which construction or modification commenced prior to April 14, 1972, to exceed 0.39 kg of particulate matter per MW-hr of actual heat input in any one-hour period (0.25 lbs/MBtu). Nothing in this rule shall be construed to prevent compliance with applicable regulations promulgated by the USEPA under Section 111 of the CAA as amended. *The provisions of Section 111 of the Clean Air Act relating to standards of performance for new stationary sources ... Are applicable in this state and are enforceable under the act* [415 ILCS 5/9.1(b)].

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.206 Emission Units Using Liquid Fuel Exclusively

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/MBtu).

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.207 Emission Units Using More Than One Type of Fuel

a) No person, while simultaneously burning more than one type of fuel in a fuel combustion emission unit, shall cause or allow the emission of particulate matter into the atmosphere in any one hour period in excess of the following equation:

$$E = AS + BL$$

Where:

E = Allowable emission rate;

A = Solid fuel particulate emission standard which is applicable;

B = Constant determined from the table in subsection (b);

S =Actual heat input from solid fuel;

L =Actual heat input from liquid fuel.

b) The metric and English units to be used in the equation of subsection (a) of this Section are as follows:

Parameter	Metric	English
E	kg/hr	lbs/hr
A	kg/MW-hr	lbs/MBtu
B	0.155	0.10
S	MW	MBtu/hr
L	MW	MBtu/hr

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.208 Aggregation of Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

Section 212.207 of this Subpart may be applied to the aggregate of all fuel combustion emission units for which construction or modification commenced prior to April 14, 1972, vented to a common stack provided that after January 26, 1972:

a) Ductwork has not been modified so as to interconnect such existing fuel combustion emission units;

b) The actual heat input to any such existing fuel combustion emission units is not increased; and

c) No new fuel combustion emission unit is added to reduce the degree of control of emissions of particulate matter required by this Subpart.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.209 Village of Winnetka Generating Station (Repealed)

(Source: Repealed at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.210 Emissions Limitations for Certain Fuel Combustion Emission Units Located in the Vicinity of Granite City

a) No person shall cause or allow emissions of PM-10 into the atmosphere to exceed 12.9 ng/J (0.03 lbs/MBtu) of heat input from fuels other than natural gas during any one hour period from any industrial fuel combustion emission units, other than in an integrated iron and steel plant, located in the vicinity of Granite City, which area is defined in Section 212.324(a)(1)(C) of this Subpart.

b) Emission units shall comply with the emissions limitations of this Section by May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS

SUBPART L: PARTICULATE MATTER EMISSIONS FROM PROCESS EMISSION UNITS

Section 212.321 Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

a) No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

b) Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and

E = Allowable emission rate; and,

i) Up to process weight rates of 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54

B	0.534	0.534

ii) For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

c) Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS

SUBPART L: PARTICULATE MATTER EMISSIONS FROM PROCESS EMISSION UNITS

Section 212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

10.4.1 Process Emission Units for Which Construction or Modification Commenced Prior to After April 14, 1972

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A\ (P)^B$$

Where:

P = Process weight rate; and

E = Allowable emission rate; and,

i. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

ii. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

PART 212
VISIBLE AND PARTICULATE MATTER EMISSIONS
SUBPART S: AGRICULTURE

Section 212.461 Grain Handling and Drying in General

a) Sections 212.302(a), 212.321, and 212.322 of this Part shall not apply to grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space.

b) Housekeeping Practices. All grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices:

1) Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.

2) Cleaning and Maintenance.

A) Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.

B) Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.

C) The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.

3) Dump Pit.

A) Aspiration equipment shall be maintained and operated.

B) Dust control devices shall be maintained and operated.

4) Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.

5) Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust.

6) Housekeeping Check List. Housekeeping check lists to be developed by the Agency shall be completed by the manager and maintained on the premises for inspection by Agency personnel.

c) Exemptions. Any grain-handling operation for which construction or modification commenced prior to June 30, 1975, having a grain through-put of not more than 2 million bushels per year and located inside a major population area and any grain-handling operation or grain-drying operation for which construction or modification commenced prior to June 30, 1975, located outside of a major population area which is required to apply for a permit pursuant to Sections 212.462 and 212.463 of this Subpart, respectively, shall receive such permit notwithstanding the control requirements of those respective rules provided said operation can demonstrate

that the following conditions exist upon application for, or renewal of, an operating permit:

1) The requirements of subsection (b) of this Section are being met; and

2) No certified investigation is on file with the Agency indicating that there is an alleged violation prior to issuance of the permit.

A) If a certified investigation is on file with the Agency indicating an alleged violation, any applicant may obtain an exemption for certain operations if said applicant can prove to the Agency that those parts of his operation for which he seeks exemption are not the probable cause of the alleged violation.

B) Applicants requesting an exemption in accordance with the provisions of subsection (c)(2)(A) of this Section may be granted an operating permit for a limited time, not to exceed twelve (12) months in duration, if an objection is on file with the Agency on which a certified investigation has not been made prior to issuance of the permit.

C) An applicant may consider denial of an exemption under this rule as a refusal by the Agency to issue a permit. This shall entitle the applicant to appeal the Agency's decision to the Board pursuant to Section 40 of the Act [415 ILCS 5/40].

d) Loss of Exemption. Any grain-handling operation or grain-drying operation for which construction or modification commenced prior to June 30, 1975, that has received an operating permit pursuant to the provisions of subsection (c) of this Section shall apply for an operating and/or construction permit pursuant to 35 Ill. Adm. Code 201 within sixty (60) days after receipt of written notice from the Agency that a certified investigation is on file with the Agency indicating that there is an alleged violation against the operation. The construction permit application shall include a compliance plan and project completion schedule showing the grain-handling operation's program or grain-drying operation's program for complying with the standards and limitations of Section 212.462 or 212.463 of this Subpart as the case may be, within a reasonable time after the date on which notice of a certified investigation indicating alleged pollution was received by said operation; provided, however, any such operation shall not be required to reduce emissions from

those parts of the operation that the applicant can prove to the Agency are not the probable cause of the pollution alleged in the certified investigation.

1) The written notice of loss of exemption is not a final action of the Agency appeal able to the Board.

2) Denial of a permit requested pursuant to this subsection is a final action appeal able to the Board under Section 40 of the Act [415 ILCS 5/40].

e) Circumvention. It shall be a violation of this regulation for any person or persons to attempt to circumvent the requirements of this regulation by establishing a pattern of ownership or source development which, except for such pattern of ownership or source development, would otherwise require application of Section 212.462 or 212.463 of this Subpart.

f) Standard on Appeal to Board. In ruling on any appeal of a permit denial under subsection (c) or (d) of this Section, the Board shall not order the permit to be issued by the Agency unless the applicant who has appealed the permit denial has proved to the Board that the grain-handling operation or grain-drying operation which is the subject of the denied application is not injurious to human, plant or animal life, to health, or to property, and does not unreasonably interfere with the enjoyment of life or property.

g) Alternate Control of Particulate Emissions.

1) Grain-handling or grain-drying operations, which were in numerical compliance with Section 212.322 of this Part, as of April 14, 1972, and continue to be in compliance with Section 212.322 of this Part need not comply with the provisions under this Subpart, except the housekeeping practices in this subsection and subsection (b) of this Section.

2) Grain-handling or grain-drying operations, which were not in numerical compliance with Section 212.322 of this Part, as of April 14, 1972, but which came into compliance with Section 212.321 of this Part prior to April 14, 1972, and continue to be in compliance with Section 212.321 of this Part need not comply with the provisions under this Subpart, except the housekeeping practices in this subsection and in subsection (b) of this Section.

3) Proof of compliance with said rule shall be made by stack sampling and/or material balance results obtained from actual testing of the subject emission

unit or process and be submitted at the time of an application for, or renewal of, an operating permit.

h) Severability. If any provision of these rules and regulations is adjudged invalid, such invalidity shall not affect the validity of this 35 Ill. Adm. Code, Subtitle B, Chapter I as a whole or of any Part, Subpart, sentence or clause thereof not adjudged invalid.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.462 Grain Handling Operations

Unless otherwise exempted pursuant to Section 212.461(c) or (d) of this Subpart, or allowed to use alternate control according to Section 212.461(g) of this Subpart, existing grain-handling operations with a total annual grain through-put of 300,000 bushels or more shall apply for an operating permit pursuant to 35 Ill. Adm. Code 201, and shall demonstrate compliance with the following:

a) Cleaning and Separating Operations.

1) Particulate matter generated during cleaning and separating operations shall be captured to the extent necessary to prevent visible particulate matter emissions directly into the atmosphere.

2) For grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

3) For grain-handling sources having a grain through-put exceeding 2 million bushels per year and located within a major population area, air contaminants collected from cleaning and separating operations shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

b) Major Dump-Pit Area.

1) Induced Draft.

A) Induced draft shall be applied to major dump pits and their associated equipment

(including, but not limited to, boots, hoppers and legs) to such an extent that a minimum face velocity is maintained, at the effective grate surface, sufficient to contain particulate emissions generated in unloading operations. The minimum face velocity at the effective grate surface shall be at least 200 fpm, which shall be determined by using the equation:

$$V = Q/A$$

Where:

V = Face velocity; and

Q = Induced draft volume in scfm; and

A = Effective grate area in ft^2; and

B) The induced draft air stream for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 90 percent by weight; and

C) The induced draft air stream for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be confined and conveyed through air pollution control equipment which has an overall rated and actual particulate collection efficiency of not less than 98 percent by weight; and

D) Means or devices (including, but not limited to, quick-closing doors, air curtains or wind deflectors) shall be employed to prevent a wind velocity in excess of 50 percent of the induced draft face velocity at the pit; provided, however, that such means or devices do not have to achieve the same degree of prevention when the ambient air wind exceeds 25 mph. The wind velocity shall be measured, with the induced draft system not operating, at a point midway between the dump-pit area walls at the point where the wind exits the dump-pit area, and at a height above the dump-pit area floor of approximately 2 ft; or

2) Any equivalent method, technique, system or combination thereof adequate to achieve, at a minimum, a particulate matter emission reduction equal to the reduction which could be achieved by compliance with subsection (b)(1) of this Section. (Board Note: Pursuant to Section 9 of the Act, certain country grain elevators are exempt from subsection (b) of this Section.)

c) Internal Transferring Area.

1) Internal transferring area shall be enclosed to the extent necessary to prohibit visible particulate matter emissions directly into the atmosphere.

2) Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

3) Air contaminants collected from internal transfer operations for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be conveyed through air pollution control equipment which has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere.

d) Load-Out Area.

1) Truck and hopper car loading shall employ socks, sleeves or equivalent devices which extend 6 inches below the sides of the receiving vehicle, except for topping off. Choke loading shall be considered an equivalent method as long as the discharge is no more than 12 inches above the sides of the receiving vehicle.

2) Box car loading shall employ means or devices to prevent the emission of particulate matter into the atmosphere to the fullest extent which is technologically and economically feasible.

3) Watercraft Loading.

A) Particulate matter emissions generated during loading for grain-handling sources having a

grain through-put of not more than 2 million bushels per year or located outside a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate matter removal efficiency of not less than 90 percent by weight prior to release into the atmosphere.

B) Particulate matter emissions generated during loading for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be captured in an induced draft air stream, which shall be ducted through air pollution control equipment that has a rated and actual particulate removal efficiency of not less than 98 percent by weight prior to release into the atmosphere; except for the portion of grain loaded by trimming machines for which particulate matter emission reductions, at a minimum, shall equal the reduction achieved by compliance with subsection (d)(3)(A) of this Section.

e) New and Modified Grain-Handling Operations. Grain-handling operations for which construction or modification commenced on or after June 30, 1975, shall file applications for construction and operating permits pursuant to 35 Ill. Adm. Code 201, and shall comply with the control equipment requirements of this Section, except for grain-handling operations for which construction or modification commenced on or after June 30, 1975, which will handle an annual grain through-put of less than 300,000 bushels; provided, however, that for the purpose of this Subpart, an increase in the annual grain through-put, without physical alterations or additions to the grain-handling operation, shall not be considered a modification unless such increase exceeds 30 percent of the annual grain through-put on which the operation's original construction and/or operating permit was granted. If the grain-handling operation has been operating lawfully without a permit, its annual grain through-put shall be determined as set forth in the definition of the term "annual grain through-put."

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.463 Grain Drying Operations

Unless otherwise exempted pursuant to Section 212.461(c) or (d) of this Subpart or allowed to use alternate control according to

Section 212.461(g) of this Subpart, grain-drying operations for which construction or modification commenced prior to June 30, 1975, with a total grain-drying capacity in excess of 750 bushels per hour for 5 percent moisture extraction at manufacturer's rated capacity (using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers, incorporated by reference in Section 212.113 of this Part) shall be operated in such a fashion as to preclude the emission of particulate matter larger than 300 microns mean particle diameter, shall apply for an operating permit pursuant to 35 Ill. Adm. Code 201, and shall comply with the following:

a) Column Dryers. The largest effective circular diameter of transverse perforations in the external sheeting of a column dryer shall not exceed 0.094 inch, and the grain inlet and outlet shall be enclosed.

b) Rack Dryers. No portion of the exhaust air of rack dryers shall be emitted to the ambient atmosphere without having passed through a particulate collection screen having a maximum opening of 50 mesh, U.S. Sieve Series.

1) All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling facilities having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be ducted through air pollution control equipment which has a rated and actual particulate removal efficiency of 90 percent by weight prior to release into the atmosphere.

2) All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be ducted through air pollution control equipment which has a rated and actual particulate removal efficiency of 98 percent by weight prior to release into the atmosphere.

c) Other Types of Dryers. All other types of dryers shall be controlled in a manner which shall result in the same degree of control required for rack dryers pursuant to subsection (b) of this Section.

d) New and Modified Grain-Drying Operations. Grain-drying operations constructed or modified on or after June 30, 1975, shall file applications for construction and operating permits pursuant to 35 Ill. Adm. Code 201, and shall comply with the control equipment requirements of this Section, except for new and modified grain-drying

operations which do not result in a total grain-drying capacity in excess of 750 bushels per hour for 5 percent moisture extraction at manufacturer's rated capacity, using the American Society of Agricultural Engineer Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.464 Sources in Certain Areas

a) Applicability. Notwithstanding Section 212.461 of this Subpart, this Section shall apply to those sources located in the Lake Calumet area as defined in Section 212.324(a)(1)(B) of this Part.

b) Emission Limitations

1) No person shall cause or allow the emission of PM-10, other than that of fugitive particulate matter, into the atmosphere to exceed 22.9 mg/scm (0.01 gr/scf) during any one hour period from any process emission unit engaged in the drying, storing, mixing or treating of grain except for column grain dryers; in addition, no person shall cause or allow visible emissions of PM-10 other than fugitive particulate matter from grain conveying, transferring, loading, or unloading operations including garners, scales and cleaners.

2) No person shall cause or allow the emission of fugitive particulate matter into the atmosphere from barges and other watercraft, truck or rail loading or unloading systems to exceed the limits specified in Section 212.123 of this Part.

3) Column grain dryers shall not be eligible for the exemptions as provided in Section 212.461(g) of this Part.

c) Exceptions. The mass emission limits contained in subsection (b) of this Section shall apply to those sources with no visible emissions other than that of fugitive particulate matter; however, if a stack test is performed, this subsection is not a defense to a finding of a violation of the mass emission limits contained in subsection (b) of this Section.

d) Maintenance, Repair, and Recordkeeping. The requirements of Section 212.324 (f) and (g) of this Part shall also apply to this Section.

e) Compliance Date. Emission units shall comply with the emission limitations and recordkeeping and reporting requirements of this Section May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 214
SULFUR LIMITATIONS

SUBPART A: GENERAL PROVISIONS

Section

214.100 Scope and Organization
214.101 Measurement Methods
214.102 Abbreviations and Units
214.103 Definitions
214.104 Incorporations by Reference

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section

214.120 Scope
214.121 Large Sources
214.122 Small Sources

SUBPART C: EXISTING SOLID FUEL COMBUSTION EMISSION SOURCES

Section

214.140 Scope
214.141 Sources Located in Metropolitan Areas
214.142 Small Sources Located Outside Metropolitan Areas
214.143 Large Sources Located Outside Metropolitan Areas

SUBPART D: EXISTING LIQUID OR MIXED FUEL COMBUSTION EMISSION SOURCES

Section

214.161 Liquid Fuel Burned Exclusively
214.162 Combination of Fuels

SUBPART E: AGGREGATION OF SOURCES OUTSIDE METROPOLITAN AREAS

Section

214.181 Dispersion Enhancement Techniques
214.182 Prohibition
214.183 General Formula
214.184 Special Formula
214.185 Alternative Emission Rate
214.186 New Operating Permits

SUBPART F: ALTERNATIVE STANDARDS FOR SOURCES INSIDE METROPOLITAN AREAS

Section

214.201 Alternative Standards for Sources in Metropolitan Areas
214.202 Dispersion Enhancement Techniques

SUBPART K: PROCESS EMISSION SOURCES

Section

214.300 Scope
214.301 General Limitation
214.302 Exception for Air Pollution Control Equipment
214.303 Use of Sulfuric Acid
214.304 Fuel Burning Process Emission Source

SUBPART O: PETROLEUM REFINING, PETROCHEMICAL AND CHEMICAL MANUFACTURING

Section

214.380 Scope
214.381 Sulfuric Acid Manufacturing
214.382 Petroleum and Petrochemical Processes
214.383 Chemical Manufacturing
214.384 Sulfate and Sulfite Manufacturing

SUBPART P: STONE, CLAY, GLASS AND CONCRETE PRODUCTS

Section

214.400 Scope
214.401 Glass Melting and Heat Treating
214.402 Lime Kilns

SUBPART Q: PRIMARY AND SECONDARY METAL MANUFACTURING

Section

214.420 Scope
214.421 Combination of Fuels at Steel Mills in Metropolitan Areas
214.422 Secondary Lead Smelting in Metropolitan Areas
214.423 Slab Reheat Furnaces in St. Louis Area

SUBPART V: ELECTRIC POWER PLANTS

Section

214.521 Winnetka Power Plant

SUBPART X: UTILITIES

Section

214.560 Scope
214.561 E. D. Edwards Electric Generating Station
214.562 Coffeen Generating Station

Appendix A Rule into Section Table
Appendix B Section into Rule Table
Appendix C Method used to Determine Average Actual Stack Height and Effective Height of Effluent Release
Appendix D Past Compliance Dates

AUTHORITY: Implementing Section 10 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, Ch. 111 1/2, pars. 1010 and 1027).

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 204: Sulfur Emission Standards and Limitations, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5, p. 777, effective February 3, 1979; amended in R74-2, R75-5, 38 PCB 129, at 4 Ill. Reg. 28, p. 417, effective June 26, 1980; amended in R78-17, 40 PCB 291, at 5 Ill. Reg. 1892, effective February 17, 1981; amended in R77-15, 44 PCB 267, at 6 Ill. Reg. 2146, effective January 28, 1982; amended and renumbered in R80-22(A), at 7 Ill. Reg. 4219, effective March 28, 1983; codified 7 Ill. Reg. 13597; amended in R80-22(B), at 8 Ill. Reg. 6172, effective April 24, 1984; amended in R84-28, at 10 Ill. Reg. 9806, effective May 20, 1986; amended in R86-31, at 12 Ill. Reg. 17387, effective October 14, 1988; amended in R86-30, at 12 Ill. Reg. 20778, effective December 5, 1988; amended in R87-31 at 15 Ill. Reg. 1017, effective January 15, 1991.

PART 214
SULFUR LIMITATIONS
SUBPART A: GENERAL PROVISIONS

Section 214.100 Scope and Organization

a) This Part sets standards and limitations for emission of sulfur from stationary sources.

b) Permit for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201.

c) Notwithstanding the provisions of this Part, the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.

d) This Part is divided into Subparts which are grouped as follows:

   1) Subpart A: General Provisions

   2) Subparts B - J: Fuel Combustion Emission Sources and Incinerators

   3) Subparts K - M: Process Emission Sources

   4) Subparts N - End: Industry and site specific rules.

e) These rules have been grouped for the convenience of the public; the scope of each is determined by its language and history.

Section 214.101 Measurement Methods

A determination of non-compliance based on any subsection of this Section shall not be refuted by evidence of compliance with any other subsection.

a) Sulfur Dioxide Measurement. Measurement of sulfur dioxide emissions from stationary sources shall be made according to an applicable method specified in 40 CFR 60, Appendix A, Method 6, 6A, 6B, or 6C, incorporated by reference in Section 214.104(a), or by measurement procedures established pursuant to 40 CFR 60.8(b), incorporated by reference in Section 214.104(b). (Ill. Rev. Stat. 1989, Ch. 111 1/2, par. 1010.)

b) Sulfuric Acid Mist and Sulfur Trioxide Measurement. Measurement of sulfuric acid mist and sulfur trioxide shall be according to the barium-thorin titration method specified in 40 CFR 60, Appendix A, Method 8, incorporated by reference in Section 214.104(a).

c) Solid Fuel Averaging Measurement Daily Analysis Method. This subsection applies to sources at plants with total solid fuel-fired heat input capacity exceeding 439.5 MW (1500 million Btu/hr). If daily fuel analysis is used to demonstrate compliance or non-compliance with Sections 214.122, 214.141, 214.142(a) 214.162, 214.186 and 214.421, the sulfur dioxide emission rate to be compared to the emission limit shall be considered to be the result of averaging daily samples taken over any consecutive two-month period provided no more than 5 percent of the sample values are greater than 20 percent above the sample average. If samples from a source cannot meet this statistical criterion, each individual daily sample analysis for such source shall be compared to the source's emission limit to determine compliance. The specific ASTM procedures, incorporated by reference in Section 214.104(c), shall be used for solid fuel sampling, sulfur, and heating value determinations.

d) Weekly Analysis Method. This subsection applies to sources at plants with total solid fuel-fired heat input capacity exceeding 146.5 MW (500 million Btu/hr) but not exceeding 439.5 MW (1500 million Btu/hr). These plants shall demonstrate compliance or non-compliance with Sections 214.122, 214.141, 214.142(a), 214.162, 214.186 and 214.421 by either an analysis of calendar weekly composites of daily fuel samples or by compliance with subsection (c) above, at the option of the plant. The specific ASTM procedures incorporated by reference in Section 214.104(c), shall be used for sulfur and heating value determinations.

e) Monthly Analysis Method. This subsection applies to sources at plants with total fuel-fired heat input capacity exceeding 14.65 MW (50 millions Btu/hr) but not exceeding 146.5 MW (500 million Btu/hr). These plants shall demonstrate compliance or non-compliance with Sections 214.122, 214.141, 214.142(a), 214.162, 214.186 and 214.421 by either an analysis of calendar monthly composites of daily fuel samples or by compliance with subsection (c) above, at the option of the plant. ASTM procedures incorporated by reference in Section 214.104(c), shall be used for sulfur and heating value determinations.

f) Small Source Alternative Method. This subsection applies to sources at plants with total solid fuel-fired heat input capacity not exceeding 14.65 MW (50 million Btu/hr). Compliance or non-compliance with Sections 214.122, 214.141, 214.142(a), 214.162, 214.186 and 214.421 shall be demonstrated by a calendar month average sulfur dioxide emission rate.

g) Exemptions. Subsections (c) through (f) shall not apply to sources controlling sulfur dioxide emissions by flue gas desulfurization equipment or by sorbent injection.

h) Hydrogen Sulfide Measurement. For purposes of determining compliance with Section 214.382(c), the concentration of hydrogen sulfide in petroleum refinery fuel gas shall be measured using the Tutwiler Procedure specified in 40 CFR 60.648, incorporated by reference in Section 214.104(d).

(Source: Amended at 15 Ill. Reg. 1017, effective January 15, 1991)

Section 214.102 Abbreviations and Units

a) The following abbreviations are used in this Part:

Btu	British thermal units (60°F)
ft	foot
gr	grains
J	Joule
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour
km	kilometer
lbs	pounds
lbs/MBtu	pounds per million Btu
m	meter
mg	milligram
Mg	megagram, metric ton or tonne
mi	mile
MBtu	million British thermal units
MBtu/hr	million British thermal units per hour
MW	megawatt; one million watts
MW-hr	megawatt-hour
ng	nanogram; one billionth of a gram by volume
ng/J	nanograms per Joule
ppm	parts per million
scf	standard cubic foot
scm	standard cubic meter
T	English ton

b) The following conversion factors have been used in this Part:

English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg
MBtu/hr	0.293 MW
1 lb/MBtu	1.548 kg/MW-hr
1 mi	1.61 km
1 gr/scf	2289 mg/scm

(Source: Amended at 12 Ill. Reg. 20778, effective December 5, 1988)

Section 214.103 Definitions

The definitions of 35 Ill. Adm. Code 201 and 211 apply to this Part.

Section 214.104 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions:

a) 40 CFR 60, Appendix A (1989):

1) Method 6: Determination of Sulfur Dioxide Emissions From Stationary Sources;

2) Method 6A: Determination of Sulfur Dioxide, Moisture, and Carbon Dioxide Emissions From Fossil Fuel Combustion Sources;

3) Method 6B: Determination of Sulfur Dioxide and Carbon Dioxide Daily Average Emissions From Fossil Fuel Combustion Sources;

4) Method 6C: Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Procedure);

5) Method 8: Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions From Stationary Sources.

b) 40 CFR 60.8(b) (1989), Performance Tests.

c) American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103:

1) For solid fuel sampling:

ASTM D-2234 (1989)
ASTM D-2013 (1986)

2) For sulfur determinations:

ASTM D-3177 (1984)
ASTM D-2622 (1987)
ASTM D-3180 (1984)
ASTM D-4239 (1985)

3) For heating value determinations:

ASTM D-2015 (1985)
ASTM D-3286 (1985)

d) Tutwiler Procedure for hydrogen sulfide, 40 CFR 60.648 (1989).

(Source: Amended at 15 Ill. Reg. 1017, effective January 15, 1991)

PART 214
SULFUR LIMITATIONS
SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section 214.120 Scope

Subparts B through F contain general rules for sulfur emissions from fuel combustion emission sources. These may be modified by industry and site specific rules in Subparts N et seq.

Section 214.121 Large Sources

This section applies to new fuel combustion emission sources with actual heat input greater than 73.2 MW (250 MBtu/hr).

a) Solid Fuel Burned Exclusively. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion emission source greater than 73.2 MW (250 MBtu/hr), burning solid fuel exclusively, to exceed 1.86 kg of sulfur dioxide per MW-hr of actual heat input (1.2 lbs/MBtu). (Board Note: This section was invalidated in Commonwealth Edison v. PCB, 25 Ill. App. 3d 271, 62 Ill.2d 494, 43 N.E.2d 84, Ashland Chemical Corp. v. PCB, 64 Ill. App.3d 169, and Illinois State Chamber of Commerce v. PCB, 67 Ill. App.3d 839, 384 N.E.2d 922, 78 Ill.2d 1, 398 N.E.2d 9.)

b) Liquid Fuel Burned Exclusively. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion emission source greater than 73.2 MW (250 MBtu/hr), burning liquid fuel exclusively:

1) To exceed 1.2 kg of sulfur dioxide per MW-hr of actual heat input when residual fuel oil is burned (0.8 lbs/MBtu); and

2) To exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/MBtu).

(Source: Amended at 7 Ill. Reg. 4219, effective March 28, 1983)

Section 214.122 Small Sources

This section applies to new fuel combustion emission sources with actual heat input smaller than, or equal to, 73.2 MW (250 MBtu/hr).

a) Solid Fuel Burned Exclusively. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 MBtu/hr), burning solid fuel exclusively, to exceed 2.79 kg of sulfur dioxide per MW-hr of actual heat input (1.8 lbs/MBtu).

b) Liquid Fuel Burned Exclusively. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 MBtu/hr), burning liquid fuel exclusively:

   1) To exceed 1.55 kg of sulfur dioxide per MW-hr of actual heat input when residential fuel oil is burned (0.8 lbs/MBtu); and

   2) To exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/MBtu).

(Source: Amended at 4 Ill. Reg. 28, p. 417, effective June 26, 1980)

PART 214
SULFUR LIMITATIONS
SUBPART K: PROCESS EMISSION SOURCES

Section 214.300 Scope

Subpart K contains general rules for sulfur emissions from process sources. These may be modified by industry and site specific rules in Subparts N et seq.

Section 214.301 General Limitation

Except as further provided by this Part, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.

(Source: Amended at 7 Ill. Reg. 4219, effective March 28, 1983)

Section 214.302 Exception for Air Pollution Control Equipment

Section 214.301 shall not apply to processes designed to remove sulfur compounds from the flue gases of fuel combustion emission sources.

(Source: Amended at 7 Ill. Reg. 4219, effective March 28, 1983)

Section 214.303 Use of Sulfuric Acid

With the exception of fuel combustion emission sources and acid manufacturing, no person using sulfuric acid shall cause or allow the emission of sulfuric acid and/or sulfur trioxide from all other similar emission sources at a plant or premises to exceed:

a) 45.4 grams in any one hour period for sulfuric acid usage less than 1180 MG/yr (100 percent acid basis) (0.10 lbs/hr up to 1300 T/yr);

b) 250 grams per metric ton of acid used for sulfuric acid usage greater than or equal to 1180 Mg/yr (100 percent acid basis) (0.50 lbs/T over 1300 T/yr).

(Source: Amended at 7 Ill. Reg. 4219, effective March 28, 1983)

Section 214.304 Fuel Burning Process Emission Source

The emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable Subparts B through F, except as follows: No person shall cause or allow the emissions of sulfur into the atmosphere in any one hour period from burning tea leaves as fuel to exceed 0.70 pounds of sulfur dioxide per MBtu of actual heat input.

(Source: Added at 7 Ill. Reg. 4219, effective March 28, 1983)

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

SUBPART A: GENERAL

Section

215.100 Introduction
215.101 Clean-up and Disposal Operations
215.102 Testing Methods
215.103 Abbreviations and Conversion Factors
215.104 Definitions
215.105 Incorporation by Reference
215.106 Afterburners
215.107 Determination of Applicability
215.108 Measurement of Vapor Pressures
215.109 Monitoring for Negligibly-Reactive Compounds

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section

215.121 Storage Containers

215.122 Loading Operations
215.123 Petroleum Liquid Storage Tanks
215.124 External Floating Roofs
215.125 Compliance Dates and Geographical Areas
215.126 Compliance Plan
215.127 Emissions Testing
215.128 Measurement of Seal Gaps

SUBPART C: ORGANIC EMISSIONS FROM MISCELLANEOUS EQUIPMENT

Section

215.141 Separation Operations
215.142 Pumps and Compressors
215.143 Vapor Blowdown
215.144 Safety Relief Valves

SUBPART E: SOLVENT CLEANING

Section

215.181 Solvent Cleaning in General
215.182 Cold Cleaning
215.183 Open Top Vapor Degreasing
215.184 Conveyorized Degreasing
215.185 Compliance Plan

SUBPART F: COATING OPERATIONS

Section

215.202 Compliance Schedules
215.204 Emission Limitations for Manufacturing Plants
215.205 Alternative Emission Limitations
215.206 Exemptions from Emission Limitations
215.207 Compliance by Aggregation of Emission Units
215.208 Testing Methods for Volatile Organic Material Content
215.209 Exemption from General Rule on Use of Organic Material
215.210 Alternative Compliance Schedule
215.211 Compliance Dates and Geographical Areas
215.212 Compliance Plan
215.213 Special Requirements for Compliance Plan
215.214 Roadmaster Emissions Limitations (Repealed)
215.215 DMI Emissions Limitations

SUBPART H: SPECIAL LIMITATIONS FOR SOURCES IN MAJOR URBANIZED AREAS WHICH ARE NONATTAINMENT FOR OZONE

Section

215.240 Applicability
215.241 External Floating Roofs
215.245 Flexographic and Rotogravure Printing
215.249 Compliance Dates

SUBPART I: ADJUSTED RACT EMISSIONS LIMITATIONS

Section

215.260 Applicability
215.261 Petition
215.263 Public Hearing
215.264 Board Action
215.267 Agency Petition

SUBPART K: USE OF ORGANIC MATERIAL

Section

215.301 Use of Organic Material
215.302 Alternative Standard
215.303 Fuel Combustion Emission Sources
215.304 Operations with Compliance Program
215.305 Viscose Exemption (Repealed)

SUBPART N: VEGETABLE OIL PROCESSING

Section

215.340 Hexane Extraction Soybean Crushing
215.342 Hexane Extraction Corn Oil Processing
215.344 Recordkeeping for Vegetable Oil Processes
215.345 Compliance Determination
215.346 Compliance Dates and Geographical Areas
215.347 Compliance Plan

SUBPART P: PRINTING AND PUBLISHING

Section

215.401 Flexographic and Rotogravure Printing
215.402 Exemptions
215.403 Applicability of Subpart K
215.404 Testing and Monitoring (Repealed)
215.405 Compliance Dates and Geographical Areas
215.406 Alternative Compliance Plan
215.407 Compliance Plan
215.408 Heatset Web Offset Lithographic Printing
215.409 Testing Methods for Volatile Organic Material Content

215.410 Emissions Testing

SUBPART Q: LEAKS FROM SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING EQUIPMENT

Section

215.420 Applicability
215.421 General Requirements
215.422 Inspection Program Plan for Leaks
215.423 Inspection Program for Leaks
215.424 Repairing Leaks
215.425 Recordkeeping for Leaks
215.426 Report for Leaks
215.427 Alternative Program for Leaks
215.428 Compliance Dates
215.429 Compliance Plan
215.430 General Requirements
215.431 Inspection Program Plan for Leaks
215.432 Inspection Program for Leaks
215.433 Repairing Leaks
215.434 Recordkeeping for Leaks
215.435 Report for Leaks
215.436 Alternative Program for Leaks
215.437 Open-Ended Valves
215.438 Standards for Control Devices
215.439 Compliance Plan

SUBPART R: PETROLEUM REFINING AND RELATED INDUSTRIES; ASPHALT MATERIALS

Section

215.441 Petroleum Refinery Waste Gas Disposal
215.442 Vacuum Producing Systems
215.443 Wastewater (Oil/Water) Separator
215.444 Process Unit Turnarounds
215.445 Leaks: General Requirements
215.446 Monitoring Program Plan for Leaks
215.447 Monitoring Program for Leaks
215.448 Recordkeeping for Leaks
215.449 Reporting for Leaks
215.450 Alternative Program for Leaks
215.451 Sealing Device Requirements
215.452 Compliance Schedule for Leaks
215.453 Compliance Dates and Geographical Areas

SUBPART S: RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

Section

215.461 Manufacture of Pneumatic Rubber Tires
215.462 Green Tire Spraying Operations

215.463 Alternative Emission Reduction Systems
215.464 Emissions Testing
215.465 Compliance Dates and Geographical Areas
215.466 Compliance Plan
215.467 Testing Methods for Volatile Organic Material Content

SUBPART T: PHARMACEUTICAL MANUFACTURING

Section

215.480 Applicability of Subpart T
215.481 Control of Reactors, Distillation Units, Crystallizers, Centrifuges and Vacuum Dryers
215.482 Control of Air Dryers, Production Equipment Exhaust Systems and Filters
215.483 Material Storage and Transfer
215.484 In-Process Tanks
215.485 Leaks
215.486 Other Emission Sources
215.487 Testing
215.488 Monitors for Air Pollution Control Equipment
215.489 Recordkeeping (Renumbered)
215.490 Compliance Schedule (Renumbered)

SUBPART U: COKE MANUFACTURING AND BY-PRODUCT RECOVERY

Section

215.500 Exceptions
215.510 Coke By-Product Recovery Plants
215.512 Coke By-Product Recovery Plant Leaks
215.513 Inspection Program
215.514 Recordkeeping Requirements
215.515 Reporting Requirements
215.516 Compliance Dates
215.517 Compliance Plan

SUBPART V: AIR OXIDATION PROCESSES

Section

215.520 Applicability
215.521 Definitions
215.525 Emission Limitations for Air Oxidation Processes
215.526 Testing and Monitoring
215.527 Compliance Date

SUBPART W: AGRICULTURE

Section

215.541 Pesticide Exception

SUBPART X: CONSTRUCTION

Section

215.561 Architectural Coatings
215.562 Paving Operations
215.563 Cutback Asphalt

SUBPART Y: GASOLINE DISTRIBUTION

Section

215.581 Bulk Gasoline Plants
215.582 Bulk Gasoline Terminals
215.583 Gasoline Dispensing Facilities - Storage Tank Filling Operations
215.584 Gasoline Delivery Vessels
215.585 Gasoline Volatility Standards
215.586 Emissions Testing

SUBPART Z: DRY CLEANERS

Section

215.601 Perchloroethylene Dry Cleaners (Repealed)
215.602 Exemptions (Repealed)
215.603 Leaks (Repealed)
215.604 Compliance Dates and Geographical Areas (Repealed)
215.605 Compliance Plan (Repealed)
215.606 Exception to Compliance Plan (Repealed)
215.607 Standards for Petroleum Solvent Dry Cleaners
215.608 Operating Practices for Petroleum Solvent Dry Cleaners
215.609 Program for Inspection and Repair of Leaks
215.610 Testing and Monitoring
215.611 Exemption for Petroleum Solvent Dry Cleaners
215.612 Compliance Dates and Geographical Areas
215.613 Compliance Plan
215.614 Testing Method for Volatile Organic Material Content of Wastes
215.615 Emissions Testing

SUBPART AA: PAINT AND INK MANUFACTURING

Section

215.620 Applicability
215.621 Exemption for Waterbase Material and Heatset Offset Ink
215.623 Permit Conditions
215.624 Open-top Mills, Tanks, Vats or Vessels
215.625 Grinding Mills
215.628 Leaks

215.630 Clean Up
215.636 Compliance Date

SUBPART BB: POLYSTYRENE PLANTS

Section

215.875 Applicability of Subpart BB
215.877 Emissions Limitation at Polystyrene Plants
215.879 Compliance Date
215.881 Compliance Plan
215.883 Special Requirements for Compliance Plan
215.886 Emissions Testing

SUBPART PP: MISCELLANEOUS FABRICATED PRODUCT MANUFACTURING PROCESSES

Section

215.920 Applicability
215.923 Permit Conditions
215.926 Control Requirements

SUBPART QQ: MISCELLANEOUS FORMULATION MANUFACTURING PROCESSES

Section

215.940 Applicability
215.943 Permit Conditions
215.946 Control Requirements

SUBPART RR: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING PROCESSES

Section

215.960 Applicability
215.963 Permit Conditions
215.966 Control Requirements

215.Appendix A Rule into Section Table
215.Appendix B Section into Rule Table
215.Appendix C Past Compliance Dates
215.Appendix D List of Chemicals Defining Synthetic Organic Chemical and Polymer Manufacturing
215.Appendix E Reference Methods and Procedures
215.Appendix F Coefficients for the Total Resource Effectiveness Index (TRE) Equation

AUTHORITY: Implementing Sections 9.1 and 10 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/9.1, 10 and 27].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 205: Organic Material Emission Standards and Limitations, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R77-3, 33 PCB 357, at 3 Ill. Reg. 18, p. 41, effective May 3, 1979; amended in R78-3 and R78-4, 35 PCB 75, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5 at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13601 Corrected at 7 Ill. Reg. 14575; amended in R82-14 at 8 Ill. Reg. 13254, effective July 12, 1984; amended in R83-36 at 9 Ill. Reg. 9114, effective May 30, 1985; amended in R82-14 at 9 Ill. Reg. 13960, effective August 28, 1985; amended in R85-28 at 11 Ill. Reg. 3127, effective February 3, 1987; amended in R82-14 at 11 Ill. Reg. 7296, effective April 3, 1987; amended in R85-21(A) at 11 Ill. Reg. 11770, effective June 29, 1987; recodified in R86-39 at 11 Ill. Reg. 13541; amended in R82-14 and R86-12 at 11 Ill. Reg. 16706, effective September 30, 1987; amended in R85-21(B) at 11 Ill. Reg. 19117, effective November 9, 1987; amended in R86-36, R86-39, R86-40 at 11 Ill. Reg. 20829, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 815, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7311, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7650, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10893, effective June 27, 1989; amended in R88-30(A) at 14 Ill. Reg. 3555, effective February 27, 1990; emergency amendments in R88-30A at 14 Ill. Reg. 6421, effective April 11, 1990, for a maximum of 150 days; amended in R88-19 at 14 Ill. Reg. 7596, effective May 8, 1990; amended in R89-16(A) at 14 Ill. Reg. 9173, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 3309, effective February 15, 1991; amended in R88-14 at 15 Ill. Reg. 8018, effective May 14, 1991; amended in R91-7 at 15 Ill. Reg. 12217, effective August 19, 1991; amended in R91-10 at 15 Ill. Reg. 15595, effective October 11, 1991; amended in R89-7(B) at 15 Ill. Reg. 17687, effective November 26, 1991; amended in R91-9 at 16 Ill. Reg. 3132, effective February 18, 1992; amended in R91-24 at 16 Ill. Reg. 13555, effective August 24, 1992; amended in R91-30 at 16 Ill. Reg. 13849, effective August 24, 1992; amended in R98-15 at 22 Ill. Reg. 11427, effective June 19, 1998.

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

SUBPART A: GENERAL PROVISIONS

Section 215.100 Introduction

a) This Part contains standards and limitations for emissions of organic material from stationary sources located in areas other than the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, and the Metro East area counties of Madison, Monroe, and St. Clair. Standards and limitations applying in the Chicago area are set forth in 35 Ill. Adm. Code 218. Standards and limitations applying in the Metro East area are set forth in 35 Ill. Adm. Code 219.

1) Notwithstanding any other provision of this Part, the provisions of this Part shall not apply to sources located in the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, unless the provisions of 35 Ill. Adm. Code Part 218 applicable to such sources are voided or otherwise made ineffective pursuant to Section 218.100 of 35 Ill. Adm. Code Part 218.

2) Notwithstanding any other provision of this Part, the provisions of this Part shall not apply to sources in the Metro East area counties of Madison, Monroe and St. Clair unless the provisions of 35 Ill. Adm. Code Part 219 applicable to such sources are voided or otherwise made ineffective pursuant to Section 219.100 of 35 Ill. Adm. Code Part 219.

b) Sources subject to this Part may be subject to the following:

1) Permits required under 35 Ill. Adm. Code 201;

2) Air quality standards under 35 Ill. Adm. Code 243.

c) This Part is divided into Subparts which are grouped as follows:

1) Subpart A: General Provisions;

2) Subpart B - J: Emissions from equipment and operations in common to more than one industry;

3) Subparts K - M: Emissions from use of organic material;

4) Subpart N - end: Special rules for various industry groups.

(Source: Amended at 16 Ill. Reg. 13849, effective August 24, 1992)

Section 215.101 Clean-up and Disposal Operations

Emission of organic material released during clean-up operations and disposal shall be included with other emissions of organic material from the related emission source or air pollution control equipment in determining total emissions.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.102 Testing Methods

Volatile organic material or organic material concentrations in a stream is measured by Method 18, 40 CFR 60, Appendix A, incorporated by reference in Section 215.105, Measurement of Gaseous Organic Compounds incorporated by reference in 215.105 except as follows. ASTM D-4457, incorporated by reference in Section 215.105, may be used for halogenated organic compounds. Method 25, 25A or 25B, 40 CFR 60, Appendix A, incorporated by reference in 215.105 may be substituted for Method 18 provided the source owner or operator submits calibration data and other proof that this method provides the information in the emission units of the applicable standard. The volumetric flow rate and gas velocity is determined in accordance with Methods 1, 1A, 2, 2A, 2C, 2D, 3 and 4, 40 CFR Part 60, Appendix A, incorporated by reference in 215.105. Any other alternate test method must be approved by the Agency, which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Agency determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Agency shall approve the proposed alternative.

(Source: Amended at 15 Ill. Reg. 8018, effective May 14, 1991)

Section 215.103 Abbreviations and Conversion Factors

a. The following abbreviations are used in this Part:

bbl	barrels (42 gal)
°C	degrees Celsius or centigrade
cu in	cubic inches
°F	degrees Fahrenheit
ft	foot
g	gram
g/mole	grams per mole

gal	gallon
hr	hour
in	inch
°K	degrees Kelvin
kcal	kilocalorie
kg	kilogram
kg/hr	kilograms per hour
kPa	kilopascals; one thousand newtons per square meter
l	liter
lb	pound
lbs/hr	pounds per hour
lbs/gal	pounds per gallon
m	meter
Mg	megagram, metric ton or tonne
min	minute
MJ	mega joules
mm Hg	millimeters of mercury
ml	milliliter
ppm	parts per million
ppmv	parts per million by volume
psi	pounds per square inch
psia	pounds per square inch absolute
psig	pounds per square inch gauge
scm	standard cubic meters
T	English ton

b. The following conversion factors have been used in this Part:

English	Metric
1 gal	3.785 1
1000 gal	3,785 1 or 3.785 cubic meters
1 psia	6.897 kPa (51.71 mm Hg)
2.205 lbs	1 kg
1 bbl	159.01 1
1 cu in	16.39 ml
1 lb/gal	119,800 mg/l
1T	0.907 mg

(Source: Amended at 12 Ill. Reg. 815, effective December 24, 1987)

Section 215.104 Definitions

The definitions of 35 Ill. Adm. Code 201 and 211 apply to this Part, as well as the definitions contained in this Section. Where the definition contained in this Section is more specific than that found in 35 Ill. Adm. Code 201 or 211, it shall take precedence in application of this Part.

"Furniture Coating Application Line": The combination of coating application equipment, flash-off area, spray booths, ovens, conveyors, and other equipment operated in

a predetermined sequence for purpose of applying coating to wood furniture.

"In Vacuum Service:" For the purposes of Subpart Q, Sections 215.430 through 215.438 equipment which is operating at an internal pressure that is at least 5 kPa (0.73 psia) below ambient pressure.

"Opaque Stains": All stains containing pigments not classified as semi-transparent stains including stains, glazes and other opaque material to give character to wood.

"Reid vapor pressure": is the standardized measure of the vapor pressure of a liquid in pounds per square inch absolute (psia) at 100°F (37.8°C).

(Source: Amended at 22 Ill. Reg. 11427, effective June 19, 1998)

Section 215.105 Incorporation by Reference

The following materials are incorporated by reference:

a) American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103:

1) ASTM D 1644-59 Method A

2) ASTM D 1475-60

3) ASTM D 2369-81

4) ASTM D 2879-83 (Approved 1983); ASTM D 2879-86 (Approved 1986)

5) ASTM D 323-82 (Approved 1982)

6) ASTM D 86-82 (Approved 1982)

7) ASTM E 260-73 (Approved 1973), E 168 - 67 (Reapproved 1977), E 169 - 63 (Reapproved 1981), E 20 (Approved 1985)

8) ASTM D 97-66

9) ASTM D 1946-67

10) ASTM D 2382-76

11) ASTM D 2504-83

12) ASTM D 2382-83

13) ASTM D-4057-81 (Approved 1981)

14) ASTM D-4177-82 (Approved 1982)

15) ASTM D-4953-89

16) ASTM D-4457-85

b) Federal Standard 141a, Method 4082.1.

c) National Fire Codes, National Fire Protection Association, Battery March Park, Quincy, Massachusetts 02269 (1979).

d) United States Environmental Protection Agency, Washington, D.C., EPA-450/2-77-026, Appendix A.

e) United States Environmental Protection Agency, Washington, D.C., EPA-450/2-78-051 Appendix A and Appendix B (December 1978).

f) Standards Industrial Classification Manual, published by Executive Office of the President, Office of Management and Budget, Washington, D.C., 1972.

g) 40 CFR 60 (1989).

h) United States Environmental Protection Agency, Washington D.C., EPA-450/2-78-041.

i) 40 CFR 80, Appendices D, E, and F (1989).

j) Elsevier Scientific Publishing Co., New York, "The Vapor Pressure of Pure Substances" (1973), Boublik, T., V. Fried and E. Hala.

k) McGraw-Hill Book Company, “Perry’s Chemical Engineer’s Handbook” (1984).

l) Chemical Rubber Publishing Company, "CRC Handbook of Chemistry and Physics" (1968-87).

m) McGraw-Hill Book Company, "Lange’s Handbook of Chemistry" (1985) John A. Dean, Editor.

n) United States Environmental Protection Agency, Washington D.C., "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products", (EPA 450/2-78-029).

BOARD NOTE: The incorporations by reference listed above contain no later amendments or editions.

(Source: Amended at 15 Ill. Reg. 8018, effective May 14, 1991)

Section 215.106 Afterburners

The operation of any oil fired or natural gas fired after-burner and capture system used to comply with this Part of any section thereof is not required during the period of November 1 of any year to April 1 of the following year provided that:

a) The operation of such devices is not required for purposes of occupational safety or health, or for the control of toxic substances, odor nuisances or other regulated pollutants; and

b) Such devices are operated for the duration of any period for which an ozone advisory, alert or emergency has been declared pursuant to 35 Ill. Adm. Code 244.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.107 Determination of Applicability

a) In determining the applicability of regulations in this Part which are qualified by "when averaged over the preceding three calendar years" the "preceding three calendar years" shall mean:

   1) The three years preceding the date by which compliance is required for purposes of determining initial applicability to existing sources;

   2) Any consecutive three year period for purposes of determining applicability to sources not previously subject to the regulation on the date by which compliance is required.

b) Sources to which the regulation has been applicable at any time shall continue to be subject to the applicable limitations even if operations change so as to result in an average which is below that which initially made the regulation applicable to those sources' operations.

(Source: Added in R85-21 (A) at 11 Ill. Reg. 11770, effective June 29, 1987)

Section 215.108 Measurement of Vapor Pressures

a) Vapor Pressure of Volatile Organic Liquids

   1) If the volatile organic liquid consists of only a single compound, the vapor pressure shall be determined by ASTM Method D 2879-86, or the vapor pressure may be obtained from a published source such as "The Vapor Pressure of Pure Substances," "Perry's

Chemical Engineer's Handbook" "CRC Handbook of Chemistry and Physics," or "Lange's Handbook of Chemistry," each source incorporated by reference at Section 215.105.

2) If the volatile organic liquid is a mixture, the vapor pressure shall be determined by ASTM Method D 2879-86 or by the following equation:

$$P_{vol} = \sum_{i=1}^{n} P_i X_i$$

Where:

P_{vol} = Total vapor pressure of the mixture.

n= Number of components in the mixture.

i= Subscript denoting an individual component.

P_i= Vapor pressure of a component determined in accordance with subsection (a)(1).

X_i= Mole fraction of the component in the total mixture.

b) Vapor Pressure of Organic Material or Solvent

1) If the organic material or solvent consists of only a single compound, the vapor pressure shall be determined by ASTM Method D2879-86, or the vapor pressure may be obtained from a published source such as "The Vapor Pressure of Pure Substances," "Perry's Chemical Engineer's Handbook," "CRC Handbook of Chemistry and Physics," or "Lange's Handbook of Chemistry," each source incorporated by reference at Section 215.105.

2) If the organic material or solvent is a mixture made up of both organic material compounds and compounds which are not organic material, the vapor pressure shall be determined by the following equation:

$$P_{om} = \frac{\sum_{i=1}^{n} P_i X_i}{\sum_{i=1}^{n} X_i}$$

Where:

P_{om} = Total vapor pressure of the portion of the mixture which is composed of organic material.

n = Number of organic material components in the mixture.

i = Subscript denoting an individual component.

P_i = Vapor pressure of an organic material component determined in accordance with subsection (b)(1).

X_i = Mole fraction of the organic material component of the total mixture.

3) If the organic material or solvent is a mixture made up of only organic material compounds, the vapor pressure shall be determined by ASTM Method D2879-86 or by the above equation.

c) Vapor Pressure of Volatile Organic Material

1) If the volatile organic material consists of only a single compound, the vapor pressure shall be determined by ASTM Method D2879-86, or the vapor pressure may be obtained from a published source such as "The Vapor Pressure of Pure Substances," "Perry's Chemical Engineer's Handbook," "CRC Handbook of Chemistry and Physics," or "Lange's Handbook of Chemistry," each source incorporated by reference at Section 215.105.

2) If the volatile organic material is a mixture made up of both volatile organic material compounds and compounds which are not volatile organic material, the vapor pressure shall be determined by the following equation:

$$P_{vom} = \frac{\sum_{i=1}^{n} P_i X_i}{\sum_{i=1}^{n} X_i}$$

Where:

P_{vom} = Total vapor pressure of the portion of the mixture which is composed of volatile organic material.

n = Number of volatile organic material components in the mixture.

i = Subscript denoting an individual component.

P_i = Vapor pressure of a volatile organic material component determined in accordance with subsection (c)(1).

X_i = Mole fraction of the volatile organic material component of the total mixture.

3) If the volatile organic material is a mixture made up of only volatile organic material compounds, the vapor pressure shall be determined by ASTM D2879-86 or by the above equation.

(Source: Added at 15 Ill. Reg. 8018, effective May 14, 1991)

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS
SUBPART A: GENERAL PROVISIONS

Section 215.109 Monitoring for Negligibly-Reactive Compounds

Any provision of 35 Ill. Adm. Code 211 notwithstanding, the Agency may require an owner or operator to submit monitoring or testing methods and results for any of the compounds listed at 35 Ill. Adm. Code 211.7150 as exempted from the definition of "volatile organic material" demonstrating the amount of exempted compounds in the source's emissions, as a precondition to such exemption, where direct quantification of volatile organic material emissions is not possible due to any of the following circumstances which make it necessary to quantify the exempt compound emissions in order to quantify volatile organic material emissions:

a) VOM and exempted compounds are mixed together in the same emissions;

b) There are a large number of exempted compounds in the same emissions; or

c) The chemical composition of the exempted compounds in the emissions is not known.

Board Note: Derived from the USEPA "Recommended Policy on the Control of Volatile Organic Compounds", as amended at 56 Fed. Reg. 11418, March 18, 1991, and subsequently codified as 40 CFR 51.100(s), as added at 57 Fed. Reg. 3941 (Feb. 3, 1992). See also 35 Ill. Adm. Code 211.7150 for the basic definition of "volatile organic material." USEPA is not bound by any state determination as to monitoring. 40 CFR 51.100(s)(4).

(Source: Amended at 22 Ill. Reg. 11427, effective June 19, 1998)

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section 215.121 Storage Containers

No person shall cause or allow the storage of any volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) or any gaseous organic material in any stationary tank, reservoir or other container of more than 151 cubic meters (40,000 gal) capacity unless such tank, reservoir or other container:

a) Is a pressure tank capable of withstanding the vapor pressure of such liquid or the pressure of the gas, so as to prevent vapor or gas loss to the atmosphere at all times; or,

b) Is designed and equipped with one of the following vapor loss control devices:

1) A floating roof which rests on the surface of the volatile organic liquid and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the volatile organic liquid has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tanks, except during sampling or maintenance operations.

2) A vapor recovery system consisting of:

A) A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and,

B) A vapor disposal system capable of processing such volatile organic material so as to prevent its emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling.

3) Other equipment or means of equal efficiency approved by the Agency according to the provisions of 35 Ill. Adm. Code 201.

(Source: Amended at 12 Ill. Reg. 815, effective December 24, 1987)

Section 215.122 Loading Operations

a) No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading facility having through-put of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading facility is equipped with submerged loading pipes, submerged fill, or a device that is equally effective in controlling emissions and is approved by the Agency according to the provisions of 35 Ill. Adm. Code 201.

b) No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 1 (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Agency according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in Section 215.121(a) or is fitted with a recovery system as described in Section 215.121(b)(2).

c) Exception: If no odor nuisance exists the limitations of this Section shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

(Source: Amended at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.123 Petroleum Liquid Storage Tanks

a) The requirements of subsection (b) below shall not apply to any stationary storage tank:

1) Equipped before January 1, 1979 with one of the vapor loss control devices specified in Section 215.121(b) of this Part, except Section 215.121(b)(1) of this Part;

2) With a capacity of less than 151.42 cubic meters;

3) With a capacity of less than 1,600 cubic meters (422,400 gallons) and used to store produced crude oil and condensate prior to custody transfer;

4) With a capacity of less than 1,430 cubic meters (378,000 gallons) and used to store produced oil or condensate in crude oil gathering;

5) Subject to new source performance standards for storage vessels of petroleum liquid, 40 CFR 60, incorporated by reference in Section 215.105 of this Part. *The provisions of Section 111 of the Clean Air*

Act...relating to standards of performance for new stationary sources...are applicable in this State and are enforceable under [The Environmental Protection Act]. (Ill. Rev. Stat., Ch. 111 1/2, par. 1009.1(b)).

6) In which volatile petroleum liquid is not stored; or

7) Which is a pressure tank as described in Section 215.121(a) of this Part.

b) Subject to subsection (a) above no owner or operator of a stationary storage tank shall cause or allow the storage of any volatile petroleum liquid in the tank unless:

1) The tank is equipped with one of the vapor loss control devices specified in Section 215.121(b) of this Part;

2) There are no visible holes, tears or other defects in the seal or any seal fabric or material of any floating roof;

3) All openings of any floating roof deck, except stub drains, are equipped with covers, lids or seals such that:

A) The cover, lid or seal is in the closed position at all times except when petroleum liquid is transferred to or from the tank;

B) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

C) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;

4) Routine inspections of floating roof seals are conducted through roof hatches once every six months;

5) A complete inspection of the cover and seal of any floating roof tank is made whenever the tank is emptied for reasons other than the transfer of petroleum liquid during the normal operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect; and

6) A record of the results of each inspection conducted under subsection (b)(4) or (b)(5) above is maintained.

c) Owners and operators of petroleum liquid storage tanks were required to have compliance schedules as summarized in Appendix C of this Part.

(Source: Amended at 16 Ill. Reg. 13849, effective August 24, 1992)

Section 215.124 External Floating Roofs

a) In addition to meeting the requirements of Section 215.123(b), no owner or operator of a stationary storage tank equipped with an external floating roof shall cause or allow the storage of any volatile petroleum liquid in the tank unless:

1) The tank has been fitted with a continuous secondary seal extending from the floating roof to the tank wall (rim mounted secondary seal) or any other device which controls volatile organic material emissions with an effectiveness equal to or greater than a rim mounted secondary seal;

2) Each seal closure device meets the following requirements:

A) The seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and tank wall; and

B) The accumulated area of gaps exceeding 0.32 centimeter (1/8 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter of tank diameter (1.0 square inches per foot of tank diameter).

3) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers across at least 90 percent of the area of the opening;

4) Openings are equipped with projections into the tank which remain below the liquid surface at all times;

5) Inspections are conducted prior to May 1 of each year to insure compliance with subsection (a);

6) The secondary seal gap is measured prior to May 1 of each year;

7) Records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, the results of the inspections and the results of the secondary seal gap measurements are maintained and available to the Agency, upon verbal or written request, at any reasonable time for a minimum of two years after the date on which the record was made.

b) Subsection (a) does not apply to any stationary storage tank equipped with an external floating roof:

1) Exempted under Section 215.123(a)(2) through 215.123(a)(6);

2) Of welded construction equipped with a metallic-type shoe seal having a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal);

3) Of welded construction equipped with a metallic-type shoe seal, a liquid-mounted foam seal, or a liquid-mounted liquid-filled-type seal, or other closure device of equivalent control efficiency approved by the Agency in which a petroleum liquid with a true vapor pressure less than 27.6 kPa (4.0 psia) at 294.3°K (70°F) is stored; or

4) Used to store crude oil.

(Source: Amended at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.125 Compliance Dates and Geographical Areas

a) Except as otherwise stated in subsection (b), every owner or operator of an emission source subject to Sections 215.123 or 215.124 shall comply with its standards and limitations by December 31, 1983.

b) If an emission source is not located in one of the counties listed below and is also not located in any county contiguous thereto, the owner or operator of the emission source shall comply with the requirements of Sections 215.123 and 215.124 no later than December 31, 1987:

Cook	Macoupin
DuPage	Madison
Kane	Monroe
Lake	Saint Clair

(BOARD NOTE: These counties are proposed to be designated as nonattainment by the United States Environmental Protection Agency at 47 Fed. Reg. 31588, July 21, 1982).

c) Notwithstanding subsection (b), if any county is designated as nonattainment by the United States Environmental Protection Agency (USEPA) at any time subsequent to the effective date of this Section, the owner or operator of an emission source located in that county or any county contiguous to that county who would otherwise be subject to the compliance date in subsection (b) shall comply with the requirements of Sections 215.123 and 215.124 within one year from the date of redesignation but in no case later than December 31, 1987.

(Source: Adopted at 7 Ill. Reg. 1244, effective January 21, 1983)

Section 215.126 Compliance Plan

a) The owner or operator of an emission source subject to Section 215.125(a) shall submit to the Agency a compliance plan as required by 35 Ill. Adm. Code 201.241, including a project completion schedule where applicable, no later than April 21, 1983.

b) The owner or operator of an emission source subject to Section 215.125(b) shall submit to the Agency a compliance plan, including a project completion schedule where applicable, no later than December 31, 1986.

c) The owner or operator of an emission source subject to Section 215.125(c) shall submit a compliance plan, including a project completion schedule within 90 days after the date of redesignation, but in no case later than December 31, 1986.

d) Unless the submitted compliance plan or schedule is disapproved by the Agency, the owner or operator of a facility or emission source subject to the rules specified in subsections (a), (b) or (c) may operate the emission source according to the plan and schedule as submitted.

e) The plan and schedule shall meet the requirements of 35 Ill. Adm. Code 201.241 including specific interim dates as required in 35 Ill. Adm. Code 201.242.

(Source: Adopted at 7 Ill. Reg. 1244, effective January 21, 1983)

Section 215.127 Emissions Testing

a) Any tests of organic material emissions, including tests conducted to determine control equipment efficiency, shall

be conducted in accordance with the methods and procedures specified in Section 215.102.

b) Upon a reasonable request by the Agency, the owner or operator of an organic material emission source required to comply with this Subpart shall conduct emissions testing, at such person's own expense, to demonstrate compliance.

c) A person planning to conduct an organic material emission test to demonstrate compliance with this Subpart shall notify the Agency of that intent not less than 30 days before the planned initiation of the tests so the Agency may observe the test.

(Source: Added at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.128 Measurement of Seal Gaps

a) Any measurements of secondary seal gaps shall be conducted in accordance with the methods and procedures specified in 40 CFR 60, Subpart Kb incorporated by reference in Section 215.105.

b) A person planning to conduct a measurement of seal gaps to demonstrate compliance with this Subpart shall notify the Agency of that intent not less than 30 days before the planned performance of the tests so the Agency may observe the test.

(Source: Added at 14 Ill. Reg. 9173, effective May 23, 1990)

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS
SUBPART K: USE OF ORGANIC MATERIAL

Section 215.301 Use of Organic Material

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.302 Alternative Standard

Emissions of organic material in excess of those permitted by Section 215.301 are allowable if such emissions are controlled by one of the following methods:

a) Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

b) A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

c) Any other air pollution control equipment approved by the Agency capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.303 Fuel Combustion Emission Sources

The provisions of Sections 215.301 and 215.302 shall not apply to fuel combustion emission sources.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.304 Operations with Compliance Program

The provisions of Section 215.301 and 215.302 shall not apply to any owner, operator, user or manufacturer of paint, varnish, lacquer, coatings or printing ink whose compliance program and project completion schedule, as required by 35 Ill. Adm. Code 201, provides for the reduction of organic material used in such process to 20 percent or less of total volume by May 30, 1975.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.305 Viscose Exemption (Repealed)

(Source: Repealed at 9 Ill. Reg. 13960, effective August 28, 1985)

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS
SUBPART N: VEGETABLE OIL PROCESSING

Section 215.340 Hexane Extraction Soybean Crushing

The owner or operator of a hexane extraction soybean crushing source, which would emit volatile organic material in excess of 100 tons per year in the absence of pollution control equipment or enforceable operating permit limitation, shall not cause or allow emissions to exceed:

a) 0.0026 lbs of volatile organic material per pound of conventional soybean crush, and

b) 0.0052 lbs of volatile organic material per pound of specialty soybean crush.

(Source: Added at 8 Ill. Reg. 13254, effective July 12, 1984)

Section 215.342 Hexane Extraction Corn Oil Processing

The owner or operator of a hexane extraction corn oil source, which would emit volatile organic material in excess of 100 tons per year in the absence of control equipment or enforceable operating permit limitation, shall not cause or allow emissions to exceed more than 2.2 gals of volatile organic material per ton of raw corn germ processed.

(Source: Added at 8 Ill. Reg. 13254, effective July 12, 1984)

Section 215.344 Recordkeeping For Vegetable Oil Processes

a) The owner or operator of sources subject to Section 215.340 and 215.342 shall maintain daily records of solvent storage inventory, and conventional and specialty soybean crush or raw corn germ. Each day the total decrease in solvent storage inventory, and total conventional and specialty soybean crush or raw corn germ for the previous 180 days shall be calculated.

b) The Agency shall have access to records required under this Section upon reasonable notice.

(Source: Added at 8 Ill. Reg. 13254, effective July 12, 1984)

Section 215.345 Compliance Determination

a) Each day, the owner or operator of sources subject to Section 215.340 shall calculate the sum of:

1) Total conventional soybean crush for the previous 180 days, in pounds, multiplied by 0.0026, plus

2) Total specialty soybean crush for the previous 180 days, in pounds, multiplied by 0.0052.

b) Each day, the owner or operator of sources subject to Section 215.342 shall calculate the sum of the total raw corn germ processed for the previous 180 days, in tons multiplied by 2.2.

c) If such sum is less than the total decrease in solvent storage inventory over the previous 180 days, then the provisions of Section 215.340 or 215.342, whichever is applicable, shall be deemed to have been exceeded.

(Source: Added at 8 Ill. Reg. 13254, effective July 12, 1984)

Section 215.346 Compliance Dates and Geographical Areas

a) Except as otherwise stated in subsection (b), every owner or operator of an emission source subject to Sections 215.340 through 215.345 shall comply with the standards and limitations of those Sections by December 31, 1985.

b) If an emission source is not located in one of the counties listed below, the owner or operator of the emission source shall comply with the requirements of Sections 215.340 through 215.345 no later than December 31, 1987:

Bond	Madison
Clinton	McHenry
Cook	Monroe
DeKalb	Montgomery
DuPage	Morgan
Franklin	Pope
Greene	Randolph
Jackson	Saline
Jersey	Sangamon
Johnson	St. Clair
Kane	Union
Kendall	Washington
Lake	Will
Macoupin	Williamson

(BOARD NOTE: The USEPA noted in its redesignation rulemaking, that it will publish a rulemaking notice on Williamson County's attainment status. (45 Fed. Reg. 21949, May 16, 1983) Should Williamson County be re-designated as attainment prior to December 31, 1984, it and the counties contiguous to it will be considered deleted from the above list.)

c) Notwithstanding subsection (b), if any county is redesignated as nonattainment by the USEPA at any time subsequent to the effective date of this Section, the owner or operator of an emission source located in that county or any county contiguous to that county who would otherwise by subject to the compliance date in subsection (b) shall comply with the requirements of Sections 215.340 through 215.345 within one year from the date of redesignation but in no case later than December 31, 1987.

(Source: Added at 8 Ill. Reg. 13254, effective July 12, 1984)

PART 216
CARBON MONOXIDE EMISSIONS

SUBPART A: GENERAL PROVISIONS

Section

216.100	Scope and Organization
216.101	Measurement Methods
216.102	Abbreviations and Conversion Factors
216.103	Definitions
216.104	Incorporations by Reference

SUBPART B: FUEL COMBUSTION EMISSION SOURCES

Section

216.121	Fuel Combustion Emission Sources
216.122	Exception, Midwest Grain Products

SUBPART C: INCINERATORS

Section

216.141	Incinerators
216.142	Exceptions

SUBPART N: PETROLEUM REFINING AND CHEMICAL MANUFACTURE

Section

216.361	Petroleum and Petrochemical Processes
216.362	Polybasic Organic Acid Partial Oxidation Manufacturing Processes

SUBPART O: PRIMARY AND FABRICATED METAL PRODUCTS

Section

216.381	Cupolas
216.382	Exception, General Motor's Ferrous Foundry in Vermilion County

Appendix A	Rule into Section Table
Appendix B	Section into Rule Table
Appendix C	Compliance Dates

AUTHORITY: Implementing Section 10 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, Ch. 111 1/2, pars. 1010 and 1027).

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 206: Carbon Monoxide Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 3 Ill. Reg. 47, p. 92, effective November 8, 1979; amended at 4 Ill. Reg. 24, p. 514, effective June 4, 1980; codified at 7 Ill. Reg. 13607; amended in R87-18 at 12 Ill. Reg. 20774, effective December 6, 1988; amended in R90-23 at 16 Ill. Reg. 18075, effective November 13, 1992.

PART 216
CARBON MONOXIDE EMISSIONS

SUBPART A: GENERAL PROVISIONS

Section 216.100 Scope and Organization

a) This Part contains standards and limitations for carbon monoxide emissions from stationary sources.

b) Permits for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201.

c) Notwithstanding the provisions of this Part, the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.

d) This Part includes Subparts arranged as follows:

1) Subpart A: General Provisions;

2) Subparts B-J: Fuel Combustion Sources and Incinerators;

3) Subparts K-M: Reserved for Emission Process Sources;

4) Subparts N-End: Industry and Site-specific rules.

e) Rules have been grouped for convenience of the public; the scope of each is determined by its language and history.

Section 216.101 Measurement Methods

Carbon Monoxide concentrations in an effluent stream shall be measured by the non-dispersive infrared method or by other methods approved by the Illinois Environmental Protection Agency (Agency) according to the provisions of 35 Ill. Adm. Code 201.

Section 216.102 Abbreviations and Conversion Factors

a) The following abbreviations are used in this Part:

Btu	British thermal unit (60 F)
CO	carbon monoxide
°C	degrees Centigrade

°F	degrees Fahrenheit
kg	kilograms
lbs	pounds
MBtu/hr	million Btu per hour
MW	Megawatts; one million watts
ppm	parts per million

b) The following conversion factors have been used in this Part:

English	Metric
1.0 MBtu/hr	0.293 MW
2.205 lbs	1 kg

Section 216.103 Definitions

The definitions contained in 35 Ill. Adm. Code 201 and 211 apply to this Part.

Section 216.104 Incorporations by Reference

The following materials are incorporated by reference: non-dispersive infrared method, 40 CFR 60, Appendix A, Method 10 (1982).

PART 216
CARBON MONOXIDE EMISSIONS
SUBPART B: FUEL COMBUSTION EMISSION SOURCES

Section 216.121 Fuel Combustion Emission Sources

No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 MBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air.

Section 216.122 Exception, Midwest Grain Products

The standard for carbon monoxide of Section 216.121 does not apply to emissions from the fluidized bed combustion boiler of Midwest Grain Products of Illinois, located in Pekin, Illinois, where the emission of carbon monoxide shall not exceed 700 parts per million, corrected to 50 percent excess air. Compliance shall be based upon a one-hour average.

(Source: Added at 12 Ill. Reg. 20774, effective December 6, 1988)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER C: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES
PART 217
NITROGEN OXIDES EMISSIONS

SUBPART A: GENERAL PROVISIONS

Section

217.100 Scope and Organization
217.101 Measurement Methods
217.102 Abbreviations and Units
217.103 Definitions
217.104 Incorporations by Reference

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section

217.121 New Emission Sources

SUBPART C: EXISTING FUEL COMBUSTION EMISSION SOURCES

Section

217.141 Existing Emission Sources in Major Metropolitan Areas

SUBPART K: PROCESS EMISSION SOURCES

Section

217.301 Industrial Processes

SUBPART O: CHEMICAL MANUFACTURE

Section

217.381 Nitric Acid Manufacturing Processes

SUBPART T: CEMENT KILNS

Section

217.400 Applicability
217.402 Control Requirements
217.404 Testing
217.406 Monitoring
217.408 Reporting
217.410 Recordkeeping

SUBPART U: NO_x CONTROL AND TRADING PROGRAM FOR SPECIFIED NO_x GENERATING UNITS

Section

217.450 Purpose
217.452 Severability
217.454 Applicability
217.456 Compliance Requirements
217.458 Permitting Requirements
217.460 Subpart U NO_x Trading Budget
217.462 Methodology for Obtaining NO_x Allocations
217.464 Methodology for Determining NO_x Allowances from the New Source Set-Aside
217.466 NO_x Allocations Procedure for Subpart U Budget Units
217.468 New Source Set-Asides for "New" Budget Units
217.470 Early Reduction Credits (ERCs) for Budget Units
217.472 Low-Emitter Requirements
217.474 Opt-In Units
217.476 Opt-In Process
217.478 Opt-In Budget Units: Withdrawal from NO_x Trading Program
217.480 Opt-In Units: Change in Regulatory Status
217.482 Allowance Allocations to Opt-In Budget Units

SUBPART V: ELECTRIC POWER GENERATION

Section

217.521 Lake of Egypt Power Plant
217.700 Purpose
217.702 Severability
217.704 Applicability
217.706 Emission Limitations
217.708 NO_x Averaging
217.710 Monitoring
217.712 Reporting and Recordkeeping

SUBPART W: NO_x TRADING PROGRAM FOR ELECTRICAL GENERATING UNITS

Section

217.750 Purpose
217.752 Severability
217.754 Applicability
217.756 Compliance Requirements
217.758 Permitting Requirements
217.760 NO_x Trading Budget
217.762 Methodology for Calculating NO_x Allocations for Budget Electrical Generating Units (EGUs)
217.764 NO_x Allocations for Budget EGUs
217.768 New Source Set-Asides for "New" Budget EGUs

217.770 Early Reduction Credits for Budget EGUs
217.774 Opt-In Units
217.776 Opt-In Process
217.778 Budget Opt-In Units: Withdrawal from NO_x Trading Program
217.780 Opt-In Units: Change in Regulatory Status
217.782 Allowance Allocations to Budget Opt-In Units

SUBPART X: VOLUNTARY NO_x EMISSIONS REDUCTION PROGRAM

Section

217.800 Purpose
217.805 Emission Unit Eligibility
217.810 Participation Requirements
217.815 NO_x Emission Reductions and the Subpart X NO_x Trading Budget
217.820 Baseline Emissions Determination
217 825 Calculation of Creditable NO_x Emission Reductions
217.830 Limitations on NO_x Emission Reductions
217.835 NO_x Emission Reduction Proposal
217.840 Agency Action
217.845 Emissions Determination Methods
217.850 Emissions Monitoring
217.855 Reporting
217.860 Recordkeeping
217.865 Enforcement

Appendix A Rule into Section Table
Appendix B Section into Rule Table
Appendix C Compliance Dates
Appendix D Non-Electrical Generating Units
Appendix E Large Non-Electrical Generating Units
Appendix F Allowances for Electrical Generating Units

Authority: Implementing Sections 9.9 and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9.9, 10, 27 and 28.5].

Source: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17, p. 101, effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-9 at 25 Ill. Reg. 128, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-16 and R0-17 at 25 Ill. Reg.5914, effective April 17, 2001.

SUBPART A: GENERAL PROVISIONS

Section 217.100 Scope and Organization

a) This Part sets standards and limitations for emission of oxides of nitrogen from stationary sources.

b) Permits for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201.

c) Notwithstanding the provisions of this Part the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.

d) These rules have been grouped for convenience of the public; the scope of each is determined by its language and history.

(Source: Amended at 25 Ill. Reg. 108, effective December 26, 2000)

Section 217.101 Measurement Methods

Measurement of nitrogen oxides shall be according to:

a) The phenol disulfonic acid method, 40 CFR 60, Appendix A, Method 7 (1999);

b) Continuous emissions monitoring pursuant to 40 CFR 75 (1999); and

c) Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure), 40 CFR 60, Appendix A, Method 7E (1999).

(Source: Amended at 25 Ill. Reg. 108, effective December 26, 2000)

Section 217.102 Abbreviations and Units

a) The following abbreviations are used in this Part:

Btu	British thermal unit (60°F)
EGU	Electrical Generating Unit
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour, usually used as an hourly emission rate
lb	pound
NO_x	Nitrogen Oxides
lbs/MBtu	pounds per million Btu, usually used as an hourly emission rate
Mg	megagram or metric tonne
MBtu	million British thermal units
MBtu/hr	million British thermal units per hour
MWe	megawatt of electricity
MW	megawatt; one million watts
MW-hr	megawatt-hour
peoc	potential electrical output capacity
ppm	parts per million

ppmv	parts per million by volume
T	English ton

b) The following conversion factors have been used in this Part:

English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg
MBtu/hr	0.293 MW
1 lb/MBtu	1.548 kg/MW-hr

(Source: Amended at 25 Ill. Reg. 108, effective December 26, 2000)

Section 217.103 Definitions

The definitions contained in 35 Ill. Adm. Code 201 and 211 apply to this Part.

Section 217.104 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

a) The phenol disulfonic acid method, as published in 40 CFR 60, Appendix A, Method 7 (1999);

b) 40 CFR 96, subparts B, D, G, and H (1999);

c) 40 CFR 96.1 through 96.3, 96.5 through 96.7, 96.50 through 96.54, 96.55 (a) & (b), 96.56 and 96.57 (1999);

d) 40 CFR 72, 75 & 76 (1999);

e) Alternative Control Techniques Document ---- NO_x Emissions from Cement Manufacturing, EPA-453/R-94-004, U. S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, March 1994;

f) Section 11.6, Portland Cement Manufacturing, AP-42 Compilation of Air Emission Factors, Volume 1: Stationary Point and Area Sources, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, revised January 1995;

g) 40 CFR 60.13 (1999); and

h) 40 CFR 60, Appendix A, Methods 7, 7A, 7C, 7D, and 7E (1999).

(Source: Amended at 25 Ill. Reg. 4597, effective March 15, 2001)

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section 217.121 New Emission Sources

No person shall cause or allow the emission of nitrogen oxides (NO_x) into the atmosphere in any one hour period from any new fuel combustion emission source with an actual heat input equal to or greater than 73.2 MW (250 MBtu/hr) to exceed the following standards and limitations:

a) For gaseous fossil fuel firing, 0.310 kg/MW-hr (0.20 lbs/MBtu) of actual heat input;

b) For liquid fossil fuel firing, 0.464 kg/MW-hr (0.30 lbs/MBtu) of actual heat input;

c) For dual gaseous and liquid fossil fuel firing, 0.464 kg/MW-hr (0.30 lbs/MBtu) of actual heat input;

d) For solid fossil fuel firing, 1.08 kg/MW-hr (0.7 lbs./MBtu) of actual heat input;

e) For fuel combustion emission sources burning simultaneously any combination of solid, liquid and gaseous fossil fuels, an allowable emission rate shall be determined by the following equation:

$$E = (AG + BL + CS)\ Q$$

Where:

E = Allowable nitrogen oxides emissions rate

Q = Actual heat input derived from all fossil fuels

G = Percent of actual heat input derived from gaseous fossil fuel

L = Percent of actual heat input derived from liquid fossil fuel

S = Percent of actual heat input derived from solid fossil fuel

$G + L + S = 100.0$

and, where A, B, C and appropriate metric and English units are determined from the following table:

	Metric	English
E	kg/hr	lbs/hr
Q	MW	MBtu/hr
A	0.023	0.003
B	0.023	0.003

C	0.053	0.007