

217/782-2113

"REVISED"  
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

Abitec Corporation  
Attn: Mike Beesley, Site Manager  
1800 South Main Street  
Paris, Illinois 61944

<u>Application No.:</u> 97030060	<u>I.D. No.:</u> 045030ABO
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 12, 1997
<u>Operation of:</u> Food Processing Source	
<u>Date Issued:</u> November 26, 2002	<u>Expiration Date<sup>1</sup>:</u> November 26, 2007
<u>Source Location:</u> 1800 South Main Street, Paris, Edgar County	
<u>Responsible Official:</u> Mike Beesley, Site Manager	

This permit is hereby granted to the above-designated Permittee to OPERATE a food processing source, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: January 27, 2006  
Revision Date Issued: To Be Determined  
Purpose of Revision: Significant Modification

This significant modification revises the permit to include provisions from Construction Permits 04030046 and 05060066 and Consent Order No. 2004CH-51. This includes a new thermal oxidizer and dust collectors, and provisions for the Miscellaneous Organic NESHAP, since the source has changed from a minor source to a major source of HAP. In addition, the compliance plan in Conditions 5.10 and 7.1.13 are removed due to the resolution of the matter in the Consent Order. Finally, the boiler provisions are revised to better reflect applicable requirements (see Section 7.4) and certain Title I provisions are revised or added (see Conditions 1.5 and 8.7).

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

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

DES:JS:psj

cc: Illinois EPA, FOS, Region 3

<sup>1</sup> Except as provided in Conditions 1.5 and 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Abitec Corporation  
1800 South Main Street  
Paris, Illinois 61944  
217/465-8577

I.D. No.: 045030ABO

1.2 Owner/Parent Company

Abitec Corporation  
7171 Goodlett Farms Parkway  
Memphis, Tennessee 38018-4909

1.3 Operator

Abitec Corporation  
Post Office Box 569  
Columbus, Ohio 43216-0569

Mike Beesley, Site Manager  
217/465-8577

1.4 General Source Description

Abitec Corporation, is located at 1800 South Main Street in Paris, Illinois. The source processes fats and oils for human and animal consumption. In addition, the source refines additives for food.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM), and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

- a. This permit contains "Title I conditions" that reflect Title I requirements established in permits previously issued for this source, which conditions are specifically designated as "T1."

- b. This permit contains Title I conditions that revise Title I requirements established in permits previously issued for this source, which conditions are specifically designated as "T1R."

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
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
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
°F	degrees Fahrenheit
ft <sup>3</sup>	cubic foot
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
kg	kilogram
kPa	kilopascal
kW	kilowatts
lb	pound
m <sup>3</sup>	cubic meter
mmBtu	Million British thermal units
MW	megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	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
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psia	pounds per square inch
RMP	Risk Management Plan
scf	standard cubic foot
SO <sub>2</sub>	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
VOM	Volatile Organic Material
wt. %	percent by weight

### 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:

None

- 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:

None

- 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 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/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)].

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
01	Reactor Train K1: Reactor K1 Reactor K4 Reactor K6	July 1993 July 1993 Jan. 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
02	Reactor Train K2: Reactor K2 Reactor K5 Reactor K7	July 1993 July 1993 Feb. 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
03	Reactor Train K3: Reactor K3 Reactor K8	July 1993 Sept. 2005	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
04	Fat Chill Spray Tower	August 1991	Baghouse
05	Source D Sterol Spray Chilled Prilling Tower	Prior to 1988 (control devices in March 2004)	Dust Collectors
06	Dry Mix Room	Prior to 1998	None
07	Solvent Recovery Distillation Column	Sept. 2001	Primary Condenser PC-SR-1, Secondary Condenser SC-2, Thermal Oxidizer
08	FOG (Fat, Oil, and Grease) Separator	Prior to April 1999	None
09	Main Steam Boiler (25.1 mmBtu/Hr)	Sept. 1996	None
10	Building A Boiler (3.3 mmBtu/Hr)	Dec. 1994	None
11	Prilling Mountain Boiler (8.4 mmBtu/Hr)	Feb. 1993	None
12	Storage Tank 1 (18,000 Gallons)	Prior to 1998	None
13	Storage Tank 1A (18,000 Gallons)	Prior to 1998	None
14	Storage Tank 2 (5,500 Gallons)	Prior to 1998	None
15	Storage Tank 2A (5,500 Gallons)	Prior to 1998	None
16	Storage Tank 3 (18,000 Gallons)	Prior to 1998	None
17	Storage Tank 4 (13,000 Gallons)	Prior to 1998	None
18	Process Tank 5 (13,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer

Emission Unit	Description	Date Constructed	Emission Control Equipment
19	Process Tank 6 (13,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
20	Storage Tank 7A (7,500 Gallons)	Prior to 1998	None
21	Storage Tank 7B (13,000 Gallons)	Prior to 1998	None
22	Process Tank 8 (13,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
23	Process Tank 9 (13,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
24	Storage Tank 14 (30,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
25	Storage Tank 15 (30,000 Gallons)	Prior to 1998	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
26	DAF Unit	Aug. 2001	None
27	Surge Wash Water Storage Tank C01 (30,000 Gallons)	Aug. 1999	None
28	Surge Wash Water Storage Tank C02 (30,000 Gallons)	Aug. 1999	None
29	Plant Equalization/ Diversion Tank #1 (30,000 Gallons)	Aug. 2001	None
30	Plant Equalization/Diversion Tank #2 (30,000 Gallons)	Aug. 2001	None

## 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 and HAP emissions.

### 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. No person shall cause or allow the open burning of trade waste or refuse, except as provided in 35 IAC 237.
- d. No person shall cause or allow the total emissions of sulfur dioxide into the atmosphere in any one hour period from all fuel combustion emission sources to exceed the emissions determined by 35 IAC 214.183 [35 IAC 214.182].

Compliance with this requirement is considered to be assured by the inherent operating conditions of all fuel combustion emission units combusting natural gas or vegetable oil residue (soy diesel).

### 5.2.3 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.

#### 5.2.4 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.

- 5.2.5 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.

#### 5.2.6 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.

#### 5.2.7 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

- 5.3.1 This permit is issued based on the source not being subject to 40 CFR Part 63, Subpart GGG, NESHAP for Pharmaceuticals Production, because the source does not manufacture a pharmaceutical product as defined in 40 CFR 63.1251.

- 5.3.2 This permit is issued based on the source not being subject to 35 IAC Part 215, Subpart T: Pharmaceutical Manufacturing, because the source does not manufacture pharmaceuticals as defined in 35 IAC 211.4650.
- 5.3.3 This permit is issued based on the source not being subject to 40 CFR 61 Subpart FF, NESHAP for Benzene Waste Operations, because the waste streams or process wastewater from this source do not come in contact with benzene during manufacturing or processing operations.

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:

- 5.4.1 In the event that operation of the equipment at this source results in an odor nuisance or any other nuisance due to the operation of the equipment or through any other cause, the Permittee shall take all appropriate and necessary action, including but not limited to, changes in operating procedures or installation of air pollution control equipment, in order to eliminate the nuisance.
- 5.4.2 The Permittee shall comply with either the requirements of 40 CFR 63 Subpart TT, 40 CFR 63 Subpart UU, or 40 CFR 65 Subpart F with respect to leaks in equipment subject to Condition 7.1.3(c) or 7.5.3(e) [40 CFR 63.2480 and Table 6].

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	215.20
Sulfur Dioxide (SO <sub>2</sub> )	5.10
Particulate Matter (PM)	40.00
Nitrogen Oxides (NO <sub>x</sub> )	25.30
HAP, not included in VOM or PM	-----
Total	309.80

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

- a. The annual emissions from the source shall not exceed the following limitation:

Pollutant	Emissions (Tons/Year)	Underlying Rules
VOM	240	40 CFR 52.21

This limit on VOM emissions is originally derived from construction permits issued by the Illinois EPA for Sterol Manufacturing Operation, i.e., Construction Permit 93070111 [T1].

Compliance with the annual limit 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).

Note: This limit is less stringent than other limits contained in this permit (e.g., Conditions 5.5.1, 5.5.3(b), and 7.5.6), but it is retained here for historical purposes.

- b. i. VOM emissions from the reactors K1 through K8 and tanks 5, 6, 8, and 9 shall not exceed the following limits:

<u>Lb/Hr</u>	<u>Ton/Yr</u>
<u>0.76</u>	<u>3.30</u>

- ii. This permit is issued based on minimal emissions of NO<sub>x</sub> and CO from the oxidizer. For this purpose, emissions of each pollutant shall not exceed 1.0 lb/hour and 4.4 tons/year.
- iii. These limits were established in Permit 05060066, pursuant to a Consent Order described in Condition 7.1.1 of this permit [T1].
- iv. 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).

## 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 of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(iii) 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.

5.7.3 The Permittee shall notify the Illinois EPA and obtain appropriate construction permits from the Illinois EPA in advance of any change in operation which would result in VOM emissions greater than any limits in this permit.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

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.

- a. For the purpose of estimating emissions from the storage tanks, the most recent version of TANKS is acceptable.
- b. For the purpose of estimating fugitive VOM from leaking piping components at the facility, the average emissions factor approach found in the USEPA document "Protocol for Equipment Leak Emission Estimates", (EPA-453/R-93-026, June 1993), is acceptable.
- c. For the purpose of estimating HAP emissions from equipment at the source, the vapor weight percent of each HAP for each organic liquid times the VOM emissions contributed by that organic liquid is acceptable.

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit: Sterol Plant  
Control: Condensers

7.1.1 Description

The source consists of three reactor trains for the sterol refining process. Two reactor trains each contain three separate reactors used for sterol refining, while the third reactor train includes two reactors used for heptane and methanol recovery from the other reactor trains via steam stripping. In the sterol refining process, the sterol esters of fatty acids derived from vegetable oils are chemically converted to free sterols and fatty acid methyl esters.

Each reactor has its own primary condenser to control VOM emissions. The exhaust from the primary condensers is ducted to a single secondary condenser for heptane and methanol recovery. The secondary condenser exhaust is tied to a thermal oxidizer for destruction of VOM and methanol.

Emissions from the reactors include VOM (heptane and methanol) and HAP (methanol) from solvents used in the refining process.

The Thermal Oxidizer was installed pursuant to a consent order between ABITEC and the State of Illinois (Circuit Court for the Fifth Judicial Circuit, Edgar County Consent Order No. 2004CH-51). This oxidizer significantly decreased emissions of volatile organic material (VOM) from the sterol department.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Reactor Train K1 (Reactors K1, K4, and K6)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
02	Reactor Train K2 (Reactors K2, K5, and K7)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
03	Reactor Train K3 (Reactors K3 and K8)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
07	Solvent Recovery Distillation Column	Primary Condenser PC-SR-1, Secondary Condenser SC-2

### 7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected sterol refining equipment" for the purpose of these unit-specific conditions, are emission units (e.g., reactors) used for processing materials used in the refining of sterols, as listed in Condition 7.1.2. The "affected reactors" include reactors K1 through K8.
- b. The affected sterol refining equipment is subject to 35 IAC 215 Subpart K, Use of Organic Material, which provides that:
  - i. 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, except as provided in 35 IAC 215.302 (see also Condition 7.1.3(b)(ii)) 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].
  - ii. Emissions of organic material in excess of those permitted by 35 IAC 215.301 (see also Condition 7.1.3(b)(i)) are allowable if such emissions are controlled by a vapor recovery system which absorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere [35 IAC 215.302(b)].
- c.
  - i. The affected reactors are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart FFFF: Standard for Miscellaneous Organic Chemical Manufacturing, because the reactors are miscellaneous organic chemical manufacturing units located at a major source for hazardous air pollutants (HAPs). For this purpose, the affected reactors are group 1 batch process vents, as defined in the NESHAP 40 CFR 63.2550, and are required to comply with applicable control requirements specified in 40 CFR 63.2460.
  - ii. Reactor K8 must begin compliance with Subpart FFFF upon startup, since it is a new affected source [40 CFR 63.2445(a)(2)]. Reactors K1 through K7 must comply by May 10, 2008 [40 CFR 63.2445(b)].

- iii. The affected reactors are also subject to certain provisions in National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart SS, because Subpart FFFF references Subpart SS for air emissions control [40 CFR 63.980]

#### 7.1.4 Non-Applicability of Regulations of Concern

- a. The affected sterol refining equipment is not subject to 35 IAC Part 215, Subpart T: Pharmaceutical Manufacturing, because the affected sterol refining equipment does not manufacture pharmaceuticals as defined in 35 IAC 211.4650.
- b. The affected sterol refining equipment is not subject to 40 CFR Part 63, Subpart GGG, NESHAP for Pharmaceuticals Production, because the affected sterol refining equipment does not manufacture a pharmaceutical product as defined in 40 CFR 63.1251.

#### 7.1.5 Control Requirements and Work Practices

- a. On and after the dates specified in Condition 7.1.3(c)(ii), the Permittee shall operate the thermal oxidizer to comply with applicable requirements of 40 CFR 63, Subparts SS and FFFF:
  - i. The Permittee must meet the requirements of 40 CFR 63.982(c) and the requirements referenced therein, including 40 CFR 63.988(a) [40 CFR 63.2450(d)].
  - ii. The secondary condenser and thermal oxidizer controlling the affected reactors vents shall reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by at least 98 percent (by weight) control efficiency [40 CFR 63.2460(a) and Table 2].
- b. The Permittee shall operate the thermal oxidizer to comply with the following requirements which were established in Permit 05060066:
  - i. Pursuant to the Consent Decree, the thermal oxidizer shall achieve at least 98 percent overall destruction of VOM emissions from the affected reactors and affected tanks (described in Section 7.5).
  - ii. The thermal oxidizer's combustion chambers shall be preheated to the manufacturer's recommended temperature but no less than the

temperature at which compliance was demonstrated in the most recent compliance test, and this temperature shall be maintained during operation of the affected reactors.

- iii. The Permittee shall maintain and repair the affected reactors and associated control systems in a manner consistent with good air pollution control practice.
  - iv. The thermal oxidizer shall only be operated with natural gas as the fuel.
- c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment listed in Condition 7.1.2 such that the pollution control equipment be kept in proper working conditions and not cause a violation of the Act or regulations identified in Condition 7.1.3.

#### 7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected sterol refining equipment is subject to the following:

- a. Emissions from the Solvent Recovery Distillation Column shall not exceed 0.1 ton per month and 0.5 ton per year. This limit is based on negligible emissions of VOM from this emission unit.

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].

The above limitations were established in Permit 00080069, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does 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].

#### 7.1.7 Testing Requirements

- a. Upon request by the Illinois EPA, the VOM emissions of the reactors and associated equipment shall be measured by an approved testing service, during conditions which are representative of maximum emissions. The process equipment shall be operated

during testing in accordance with normal operating practices. Process or pollution control equipment modifications prior to the tests shall be documented. This shall include any changes that may enhance VOM control efficiency or reduce emissions through changes in operating conditions.

- b. The Permittee shall comply with the applicable testing procedures in 40 CFR 63, Subparts SS and FFFF, including 40 CFR 63.988(b), 63.997, 63.2450(g) and 63.2460(c) (2).

#### 7.1.8 Monitoring Requirements

- a. The oxidizer shall be equipped with a continuous temperature indicator and chart recorder for the oxidizer combustion chamber temperature, pursuant to 35 IAC 215.105(d) (2) (A) and the 40 CFR 63.988(c) (1).
- b. The Permittee shall follow the monitoring procedures in 40 CFR 63.996(b) and (c).

#### 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 sterol refining equipment to demonstrate compliance with Conditions 5.5.1, 7.1.5, 7.1.6, and 7.1.7, pursuant to Section 39.5(7) (b) of the Act:

- a. The Permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63 Subparts SS and FFFF, including 40 CFR 63.998 and 63.2525.
- b. Records of operation and emissions of the affected sterol refining equipment, including the following:
  - i. Identification, density, and vapor pressure of each VOM used;
  - ii. Types and total amount of raw materials used, gal/month and gal/year;
  - iii. Types and total amount of products produced, lb/month and lb/year;
  - iv. Detailed records of specific emission factor development for each reactor, including the stack test and/or process information for that specific emission factor; and
  - v. The aggregate monthly and annual VOM emissions from the affected sterol refining equipment, with supporting calculations.

- c. Records addressing the use of good operating practices for the condensers and thermal oxidizer, including:
  - i. Records for periodic inspection of the air pollution control equipment with date, individual performing the inspection, and the nature of the inspection; and
  - ii. Records of prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Records of the testing of VOM emissions from the affected sterol refining equipment pursuant to Condition 7.1.7, which include the following [Section 39.5(7) (e) of the Act]:
  - i. The date, place and time of sampling or measurements;
  - ii. The date(s) analyses were performed;
  - iii. The company or entity that performed the analyses;
  - iv. The analytical techniques or methods used;
  - v. The results of such analyses; and
  - vi. The operating conditions as existing at the time of sampling or measurement.

#### 7.1.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of affected sterol refining equipment 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:
  - i. If there is an exceedance of the requirements of Condition 7.1.3 or 7.1.6 as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, IL, 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.

- ii. Other deviations shall be reported in quarterly reports, which may be combined with the reports required by 40 CFR 63.2520.
- b. The Permittee shall fulfill applicable reporting requirements of 40 CFR 63 Subparts SS and FFFF, including 40 CFR 63.999, 63.2515, and 63.2520.
- c. Prior to carrying out the tests required by Condition 7.1.7, the Illinois EPA shall be notified in writing a minimum of thirty (30) calendar days prior to the scheduled date of these tests with the exact date, time, and place of these tests, to enable the Illinois EPA to observe these tests.
- d. If the scheduled date for the test required by Condition 7.1.7 is changed for unforeseen reasons, the Permittee shall inform the Illinois EPA within five (5) working days of the originally scheduled test date and must specify the date of the rescheduled test. Observation of the performance test by the Illinois EPA is optional.
- e. Three (3) copies of the Final Report(s) for performance tests required by Condition 7.1.7 shall be submitted to the Illinois EPA within 14 calendar days after the test results are compiled and finalized. The Final Report shall include:
  - i. A summary of results;
  - ii. General information about the process;
  - iii. A description of the test method(s), including descriptions of sampling points, sampling train, analysis equipment, and test schedule;
  - iv. A detailed description of test conditions;
  - v. Process information (e.g., mode(s) of operation, process rate, raw material consumption);
  - vi. Control equipment information (e.g., condition and operating parameters during testing);
  - vii. A discussion of any preparatory actions taken (e.g., inspection, maintenance, repair);

- viii. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations, and data on equipment calibration; and
- ix. An explanation of any discrepancies among individual test or anomalous data.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

Compliance with the VOM emission limits in Conditions 5.5 and 7.1.6 shall be determined by the recordkeeping requirements in Condition 7.1.9 and the following emission calculation procedures:

- a. Emissions from the affected sterol refining equipment shall be calculated based on the following emission factors:

<u>Reactor Train</u>	<u>VOM Emission Factor (lb/Batch/Unit)</u>
K1	131.48
K2	226.28
K3	145.83

These are the controlled emission factors based on material balances, accounting for organic material consumed in chemical reactions, organic material disposed of with wastewater, organic material vented from storage tanks, and control efficiencies of the primary and secondary condensers and solvent recovery condenser.

$$\text{VOM Emissions (lb)} = \sum (B_i * EF_i)$$

Where:

$B_i$  = Number of batches for reactor  $i$ , and

$EF_i$  = Emission Factor for reactor  $i$

- b. For the purpose of estimating fugitive VOM from leaking piping components at the facility, the average emissions factor approach found in the USEPA document "Protocol for Equipment Leak Emission Estimates", (EPA-453/R-93-026, June 1993), is acceptable.

- c. Total VOM emissions are to be determined by combining the results of Conditions 7.1.12(a) and (b) for the affected sterol refining equipment.

#### 7.1.13 Compliance Schedule

- a. Notwithstanding Condition 8.1 of this permit, compliance with the terms of this permit does not shield the Permittee from possible enforcement actions initiated by either the USEPA or the Illinois EPA involving VOM emissions from the affected sterol refining equipment. In addition, compliance with the terms of this permit does not serve as proof of compliance for these emission units or activities.

7.2 Unit: Wastewater Pretreatment

7.2.1 Description

The sterol refining process includes a wastewater pretreatment operation for the separation of solid fats, oils, and greases. VOM emissions from the sludge pretreatment plant are uncontrolled.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
08	FOG (Fat, Oil, and Grease) Separator	None
26	DAF Unit	None
29	Plant Equalization/Diversion Tank #1 (30,000 Gallons)	None
30	Plant Equalization/Diversion Tank #2 (30,000 Gallons)	None

7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected wastewater pretreatment unit" for the purpose of these unit-specific conditions, is the FOG Separator described in Condition 7.2.2.
- b. Each affected wastewater pretreatment unit is subject to 35 IAC 215.301, which specifies that 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 unit, except as provided in 35 IAC 215.302 and the following exception: if no odor nuisance exists this limitation shall apply only to photochemically reactive material [35 IAC 218.501].

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected wastewater pretreatment unit is not subject to emission control requirements under the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart FFFF: Standard for Miscellaneous Organic Chemical Manufacturing, because the affected wastewater pretreatment unit handles a Group 2 wastewater stream as defined in 40 CFR 63.2485(c) and there are no emission control requirements for Group 2 wastewater streams.
- b. The affected wastewater pretreatment unit is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources,

because the affected wastewater pretreatment unit does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.2.5 Operational And Production Limits And Work Practices

- a. The affected wastewater pretreatment unit shall not be used to handle material such that the total annual HAP concentration exceeds the levels in 40 CFR 63.2485(c). For example, in the absence of a partially soluble HAP (Table 8 of Subpart FFFF), the total annual concentration of methanol (plus other compounds in Table 9 of Subpart FFFF) shall not exceed 30,000 ppmw. This requirement is established to ensure that the affected wastewater pretreatment unit does not handle a Group 1 wastewater stream for the purposes of 40 CFR 63, Subpart FFFF.

7.2.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.2.7 Testing Requirements

None

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 wastewater pretreatment unit to demonstrate compliance with Conditions 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

- a. Number of batches run;
- b. Detailed records of specific emission factor development including the stack test and/or process information for that specific emission factor; and
- c. The aggregate monthly and annual VOM emissions from the affected wastewater pretreatment unit, with supporting calculations.

7.2.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected

wastewater pretreatment unit 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.

- b. The Permittee must submit a report 60 days before the scheduled implementation date of a change from Group 2 to Group 1 for any emission point [40 CFR 63.2520(e)(10)(ii)].

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the VOM emission limits shall be determined by the recordkeeping requirements in Condition 7.2.9 and the following emission calculation procedure:

$$\text{VOM Emissions (lb)} = (\text{Number of Batches}) * (4.04 \text{ lb/Batch})$$

Where 4.04 lb/batch is the emission factor for the affected wastewater pretreatment unit.

7.3 Unit: Spraying and Mixing Equipment  
Control: Baghouse and Dust Collectors

7.3.1 Description

This source includes two spray towers and a mixing room for dry substances. Material is pumped through a high pressure pump to the spray towers, where it is atomized into fine droplets. As these droplets fall through a counter-current flow of cold air, they congeal into fine beads. The beads are then packaged for shipment.

PM emissions from the spray towers are controlled by a baghouse and dust collectors, while PM emissions from the mixing room are uncontrolled. Product collected in the control equipment is remelted and recycled through the process.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
04	Fat Chill Spray Tower	Baghouse
05	Source D Sterol Spray Chilled Prilling Tower	Dust Collectors
06	Dry Mix Room	None

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected material process equipment" for the purpose of these unit-specific conditions, are emission units used for spraying and mixing materials, as listed in Condition 7.3.2.
- b. The affected material process equipment is subject to 35 IAC 212.321, 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 (See also Attachment 2) [35 IAC 212.321(a)].

- c. The affected material process equipment is subject to 35 IAC 212.301, Fugitive Particulate Matter, which provides that no person shall cause or allow the emission of fugitive particulate matter from any process, including material handling or storage activity, that is visible by an observer looking

generally toward the zenith at a point beyond the property line of the source [35 IAC 212.301].

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected material process equipment is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected material process equipment either do not use an add-on control device to achieve compliance with an emission limitation or standard or do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.3.5 Control Requirements and Work Practices

- a. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment listed in Condition 7.3.2 such that the pollution control equipment be kept in proper working conditions and not cause a violation of the Act or regulations identified in Condition 5.2.2 or 7.3.3.

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected material process equipment is subject to the following:

- a. PM emissions from the Source D Sterol Spray Chilled Prilling Tower shall not exceed 11.30 tons per year. This limit is based on the hourly emission rate allowed by 35 IAC 212.321 at the maximum operating rate and the maximum hours of operation.

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].

The above limitations were established in Permit 84100028, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does 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].

- b. PM emissions from the Fat Chill Spray Tower shall not exceed 1.0 pound per hour and 4.2 tons per year.

This limit is based on the maximum expected emission rate and the maximum hours of operation.

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].

The above limitations were established in Permit 98110016, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does 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].

#### 7.3.7 Testing Requirements

- a. Upon written request from the Illinois EPA, the Permittee shall at his own expense, have tests conducted for PM/PM<sub>10</sub> emissions and opacity in accordance with the applicable test methods and procedures 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 <sub>10</sub> )	USEPA Method 5/202
Opacity	USEPA Method 9

#### 7.3.8 Monitoring Requirements

- a. The Permittee shall visually inspect the baghouse and dust collector filters and check for air flow drop on at least a weekly basis in order to ensure proper operation of the filters and the need for replacement.

#### 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 material process equipment to demonstrate compliance with Conditions 5.5.1, 7.3.5, and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of operation and emissions of the affected material process equipment, including the following:
  - i. Types and total amount of raw materials used, lb/month and lb/year;

- ii. Types and total amount of products produced, lb/month and lb/year;
  - iii. Operating hours for the affected material processing equipment, hour/month and hour/year;
  - iv. The aggregate monthly and annual PM emissions from the affected material process equipment, with supporting calculations;
  - v. The maximum process weight rate (ton/hr) for each affected material processing equipment, to determine the emission limit indicated by Condition 7.3.3(c); and
  - vi. Weekly measurements of the pressure drop across the baghouse and dust collector filters.
- b. Records addressing the use of good operating practices for the baghouse and dust collectors, including:
- i. Records for periodic inspection of the air pollution control equipment with date, individual performing the inspection, and the nature of the inspection; and
  - ii. Records of prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

#### 7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of affected material process equipment 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:
- i. If there is an exceedance of the requirements of Condition 7.3.3 or 7.3.6 as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, IL, 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. The Illinois EPA shall be notified prior to the tests required by Condition 7.3.7 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 required by Condition 7.3.7, 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 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 Reports(s) for tests required by Condition 7.3.7 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 points 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.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

- a. Compliance with the PM emission limitations in Condition 7.3.3 is assured and achieved by proper operation and maintenance of the baghouse and dust collectors as required by Condition 7.3.5, and the monitoring and recordkeeping requirements in Conditions 7.3.8 and 7.3.9.
- b. Compliance with the emission limits in Conditions 5.5.1 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and the following emission estimation procedures based on material balance calculations:

$$\text{PM emissions (lb)} = [(\text{Raw Materials, lb}) - (\text{Product, lb})] * (1 - \text{Control Device Efficiency, \%})$$

Where Control Device Efficiency is as specified by the manufacturer or vender of the control device or the latest emissions tests.

7.4 Unit: Boilers

7.4.1 Description

Fuel is burned in the boilers to generate steam and heat used in the various buildings. The Building A Boiler heats oil that is used in a circulating heat-exchange system. The Main Steam Boiler is capable of firing both natural gas and soy-diesel fuels. The Building A and the Prilling Mountain Boiler both use only natural gas. All emissions from the fuel combustion units are uncontrolled.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
09	Main Steam Boiler (25.1 mmBtu/hr)	None
10	Building A Boiler (3.3 mmBtu/hr)	None
11	Prilling Mountain Boiler (8.4 mmBtu/hr)	None

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected boilers" for the purpose of these unit-specific conditions, are fuel combustion emission units used to provide steam and heat, as listed in Condition 7.4.2.
- b. Each affected boiler is subject to the opacity and emission limits identified in Condition 5.2.2.
- c. Each affected boiler is subject to 35 IAC 216.121, which states that 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 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- d. Each affected boiler is subject to 35 IAC 214.122, which states that no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any fuel combustion source, burning liquid fuel exclusively, to exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.122(b) (2)].
- e. The Main Steam Boiler is subject to NSPS, 40 CFR 60 Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units because the boiler was constructed after the applicable date of June 9, 1989, and has a design heat input greater than or

equal to 10 mmBtu/hr. The Illinois EPA is administering these standards in Illinois on behalf of the USEPA under a delegation agreement.

#### 7.4.4 Non-Applicability of Regulations of Concern

- a. Each affected boiler is not subject to 35 IAC 217.141, because the actual heat input of each affected boiler is less than 73.2 MW (250 mmBtu/hr).
- b. Pursuant to 35 IAC 215.303, each affected boiler, i.e., fuel combustion emission unit, is not subject to 35 IAC 215.301, Use of Organic Material.
- c. The Building A Boiler and Prilling Mountain Boiler are not subject to the New Source Performance Standard 40 CFR 60 Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units, because the maximum design heat input capacity of each boiler is less than 2.9 MW (10 mmBtu/hr).
- d. The affected boilers are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of 40 CFR Part 63, Subpart DDDDD, NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters, because the affected boilers are either existing, large gaseous fuel units or small, gaseous fuel units [40 CFR 63.7506(b) and (c)].
- e. The affected boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boilers do not use an add-on control device to achieve compliance with an emission limitation or standard.

#### 7.4.5 Operational And Production Limits And Work Practices

- a. At all times, the Permittee shall, to the extent practicable, maintain and operate the Main Steam Boiler in a manner consistent with good air pollution control practice for minimizing emissions [40 CFR 60.11(d)].
- b. Natural gas and vegetable oil residue (soy diesel) shall be the only fuels fired in the Main Steam Boiler.
- c. Natural gas shall be the only fuel fired in the Prilling Mountain Boiler. Natural gas consumption shall not exceed 7.6 million scf per month and 91.6 million scf per year. These are revisions to limitations that were established in Permit 98110094.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected boilers are subject to the following:

- a. Emissions from the Main Steam Boiler while burning vegetable oil residue (soy diesel) fuel shall not exceed the following limits:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>(Lb/Hour)</u>	<u>(Ton/Year)</u>
NO <sub>x</sub>	4.70	20.60
CO	2.56	11.19
PM	0.72	3.15
SO <sub>2</sub>	9.12	33.90
VOM	0.17	0.74

These limits are based on the standard emission factors, maximum firing rates, maximum hours of operation with vegetable oil residue (soy diesel) fuel, and maximum allowable sulfur content of vegetable oil residue (soy diesel).

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].

The above limitations contain revisions to previously issued Permit 96070086. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the SO<sub>2</sub> emission limits were increased from 0.90 lb/hr and 3.90 ton/year to 9.12 lb/hr and 33.90 ton/year to account for variability of sulfur content in soy diesel fuel. In addition, emission limits for CO, PM, and VOM were increased (6.09,

1.05, and 0.3 tons per year, respectively) to reflect changes in the emission factors and increased fuel usage [T1R].

- b. Emissions from the Prilling Mountain Boiler shall not exceed the following limits:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>(Lb/Hour)</u>	<u>(Ton/Year)</u>
NO <sub>x</sub>	1.05	4.59
CO	0.88	3.85

These limits are based on the standard emission factors, maximum firing rates, and maximum hours of operation with natural gas fuel.

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].

The above limitations contain revisions to previously issued Permit 98110094. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, emission limits for NO<sub>x</sub> and CO were increased (0.19 and 0.15 ton per year, respectively) to reflect changes in the emission factors and increased fuel usage [T1R].

- c. Emissions from the Building A Boiler shall not exceed the following limits:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>(Lb/Hour)</u>	<u>(Ton/Year)</u>
NO <sub>x</sub>	0.38	1.70
CO	0.32	1.40

These limits are based on the standard emission factors, maximum firing rates, and maximum hours of operation with natural gas fuel.

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].

The above limitations contain revisions to previously issued Permit 93110004. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, emission limits for CO were increased (1.05 tons per year) to reflect a change in the emission factor and increased fuel usage [T1R].

#### 7.4.7 Testing Requirements

- a. The vegetable oil residue (soy diesel) fuel shall be analyzed monthly for heat content (Btu/lb), percent sulfur, percent ash, and specific gravity.
- b. Within 90 days of a written request from the Illinois EPA, the Main Steam Boiler emissions shall be measured by an approved independent testing service, while firing vegetable oil residue (soy diesel) fuel during conditions which are representative of maximum emissions.

#### 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 boilers to demonstrate compliance with

Conditions 5.5.1 and 7.4.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Monthly and annual natural gas usage in the affected boilers (ft<sup>3</sup>/month and ft<sup>3</sup>/year);
- b. Monthly and annual vegetable oil residue (soy diesel) fuel usage in the Main Steam Boiler (gal/month and gal/year);
- c. Records of the annual vegetable oil residue (soy diesel) fuel analysis required by Condition 7.4.7;
- d. Records of boiler maintenance and repairs;
- e. All the records required pursuant to 40 CFR 60.7 and 60.48c for the affected boilers, including the amounts of each fuel combusted during each operation day (natural gas, ft<sup>3</sup>/day, and vegetable oil residue, gal/day) [40 CFR 60.48c(g)]; and
- f. Annual aggregate NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and VOM emissions from each affected boiler, based on fuel consumption and the applicable emission factors, with supporting calculations.

#### 7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected boiler 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 Permittee shall notify the Illinois EPA within 60 days of operation of an affected boiler that may not have been in compliance with the opacity limitations in Condition 5.5.2(b), with a copy of such record for each incident.
- b. The Permittee shall notify the Illinois EPA Compliance Section and Regional Office of emissions in excess of the limits specified in Conditions 7.4.5 or 7.4.6 by sending a copy of any record showing a violation to the Illinois EPA within 30 days following the occurrence of the violation. The report shall include the emissions released in accordance with the recordkeeping requirements of this permit, a copy of the relevant records, a description of the exceedance or violation, and efforts to reduce emissions and future occurrences.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Compliance with the CO emission limit in Condition 7.4.3(c) is demonstrated under inherent operating conditions of the affected boiler combusting only natural gas or vegetable oil residue (soy diesel), so that no compliance procedures are set in this permit addressing this requirement.
- b. Compliance with the SO<sub>2</sub> emission limit in Condition 7.4.3(d) is assured by the operational limits in Condition 7.4.5 and the recordkeeping required by Condition 7.4.9.
- c. Compliance with the emission limits in Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:
  - i. Emissions from the affected boilers burning natural gas shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/10<sup>6</sup> ft<sup>3</sup>)</u>
PM	7.6
SO <sub>2</sub>	0.6
VOM	5.5
NO <sub>x</sub>	100.0
CO	84.0

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement F, March 1998.

Boiler Emissions (lb) = Natural gas consumed (ft<sup>3</sup>) multiplied by the appropriate emission factor.

- ii. Emissions from the affected boilers burning vegetable oil residue (soy diesel) shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/10<sup>3</sup> gal)</u>
PM	3.3
NO <sub>x</sub>	20.0

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/10<sup>3</sup> gal)</u>
SO <sub>2</sub>	142*S
VOM	0.2
CO	5.0

These are the emission factors for uncontrolled distillate fuel oil combustion in small (< 100 mmBtu/hr) industrial boilers, Tables 1.3-1, 1.3-2, and 1.3-3, AP-42, Volume I, Supplement E, September 1998. "S" indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 0.1% sulfur, then S = 0.1.

Boiler Emissions (lb) = Vegetable Oil Residue Consumed (Gallons) Multiplied by the Appropriate Emission Factor.

- iii. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.4.12(b) (i) and (ii) for all affected boilers.

7.5 Unit: Storage Tanks  
Control: Condensers

7.5.1 Description

The source includes various storage tanks used to store raw materials, products, by-products, and fuels used in the manufacturing process. VOM emissions from certain tanks are controlled in series by vent condensers, which vent to the common secondary condenser system and thermal oxidizer serving the sterol plant.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
12	Storage Tank 1 (18,000 Gallons)	None
13	Storage Tank 1A (18,000 Gallons)	None
14	Storage Tank 2 (5,500 Gallons)	None
15	Storage Tank 2A (5,500 Gallons)	None
16	Storage Tank 3 (18,000 Gallons)	None
17	Storage Tank 4 (13,000 Gallons)	None
18	Process Tank 5 (13,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
19	Process Tank 6 (13,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
20	Storage Tank 7A (7,500 Gallons)	None
21	Storage Tank 7B (13,000 Gallons)	None
22	Process Tank 8 (13,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
23	Process Tank 9 (13,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
24	Process Tank 14 (30,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
25	Process Tank 15 (30,000 Gallons)	Primary Condensers, Secondary Condenser SC-1, Thermal Oxidizer
27	Surge Wash Water Storage Tank C01 (30,000 Gallons)	None

Emission Unit	Description	Emission Control Equipment
28	Surge Wash Water Storage Tank C02 (30,000 Gallons)	None

### 7.5.3 Applicability Provisions and Applicable Regulations

- a. The "affected tanks" for the purpose of these unit-specific conditions, are storage or process tanks with a capacity of less than 40,000 gallons, as listed in Condition 7.5.2.
- b. Each affected tank is subject to 35 IAC 215.301, which specifies that 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 unit, except as provided in 35 IAC 215.302 and the following exception: if no odor nuisance exists this limitation shall apply only to photochemically reactive material [35 IAC 215.301].
- c. Each affected tank is subject to the requirements of 35 IAC 215.122(b) because each affected tank (except for Storage Tank 15) has a storage capacity greater than 946 liters (250 gallons).
- d. Each affected tank with a storage capacity greater than or equal to 40 m<sup>3</sup> (approximately 10,567 gallons) is subject to 40 CFR 60, Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels, because the construction date of each tank is after the applicability date of July 23, 1984. The Illinois EPA is administering these standards in Illinois on behalf of the USEPA under a delegation agreement. Except for the recordkeeping in Condition 7.5.9 (see also 40 CFR 60.116b), these tanks are exempt from the provisions of 40 CFR 60, Subpart Kb.
- e. Tanks 3, 14, and 15 are subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart FFFF: Standard for Miscellaneous Organic Chemical Manufacturing, because they are vessels used to store a HAP (methanol) and are associated with a miscellaneous organic chemical manufacturing process unit. For this purpose, tanks 3, 14, and 15 are Group 1 storage tanks (or surge control vessels that meet the Group 1 storage tank threshold), as defined in the NESHAP 40 CFR 63.2550, and are required to comply with the applicable control requirements specified in 40 CFR 63.2450(r) or 63.2470. The Permittee must comply with the requirements in 40 CFR 63, Subpart FFFF no later than May 10, 2008 [40 CFR 63.2445(b)].

#### 7.5.4 Non-Applicability of Regulations of Concern

- a. Each affected tank is not subject to 35 IAC 215 Subpart B: Organic Emissions from Storage and Loading Operations (except 35 IAC 215.122(b)), because each tank has a capacity of less than 40,000 gallons.
- b. Each affected tank with a storage capacity less than 75 m<sup>3</sup> (approximately 19,813 gallons) is not subject to the requirements of 40 CFR 60, Subpart Kb.
- c.
  - i. Tanks 5, 6, 8, 9, C01, and C02 are not subject to emission control requirements under the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart FFFF: Standard for Miscellaneous Organic Chemical Manufacturing, because these tanks function as "surge control vessels" and do not meet the capacity and vapor pressure thresholds for a "Group 1 storage tank," as defined in 40 CFR 63.2550 [40 CFR 2450(r)].
  - ii. Tanks 2 and 2A are not subject to emission control requirements under the National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart FFFF: Standard for Miscellaneous Organic Chemical Manufacturing, because these tanks are Group 2 storage tanks, as defined in 40 CFR 63.2550 and there are no emission control requirements for Group 2 storage tanks.
- d. The affected tanks are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tanks either do not use an add-on control device to achieve compliance with an emission limitation or standard or do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

#### 7.5.5 Control Requirements and Work Practices

- a. Each affected tank shall be equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with 35 IAC 215.108, or unless such tank is fitted with a recovery system as described in 35 IAC 215.121. If no odor nuisance exists the limitations of this condition shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa

(2.5 psia) or greater at 294.3°K (70°F) [35 IAC 215.122(b) and (c)].

- b. Except for Tanks 3, 14, and 15, the affected tanks shall not be used to store material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals. The maximum true vapor pressure of total HAP is the equilibrium partial pressure exerted by the total organic HAPs in the stored liquid at the local maximum monthly average temperature. This requirement is established to ensure that the affected tanks (other than Tanks 3, 14, and 15) are not Group 1 storage tanks for the purposes of 40 CFR 63, Subpart FFFF.
- c. Prior to discharge to the atmosphere, the exhaust from Tanks 5, 6, 8, and 9 shall be passed through the thermal oxidizer, if the thermal oxidizer is in service. (See Condition 7.1.5 for requirements for the thermal oxidizer.) This requirement was established in Permit 05060066.
- d. The Permittee shall maintain and repair the affected tanks and associated control system in a manner consistent with good air pollution control practice. This requirement was established in Permit 05060066.

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected tanks are subject to the following:

- a. Emissions from all affected tanks shall not exceed the following limits:

VOM Emissions	
<u>(Lb/Day)</u>	<u>(Ton/Year)</u>
12.5	2.27

These limits are based on the maximum hourly emission rates and maximum hours of operation (8,760 hours per year).

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].

The above limitations contain revisions to previously issued Permit 93070111. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the

conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the VOM emission limits for all affected tanks were combined and reduced by 60.76 tons per year to more accurately reflect actual operation [T1R].

7.5.7 Testing Requirements

None

7.5.8 Inspection 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 each affected tank to demonstrate compliance with Conditions 5.5.1, 7.5.5, and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain records of the following items for each affected tank. These records shall be kept up to date for each tank at the source and be retained until the tank is removed from the source.
  - i. Records indicating compliance with 35 IAC 215.122 (e.g., the presence of a submerged loading pipe); and
  - ii. The dimensions of the tank and an analysis of capacity. [40 CFR 60.116b(b)]
- b. For each tank, the Permittee shall maintain, the identification and properties of each organic liquid stored at the source, as related to emissions, i.e., vapor pressure, molecular weight, and concentration of each HAP.

- c. The Permittee shall maintain records of the following items on an annual basis:
  - i. The throughput of each organic liquid through each tank or group of tanks, gallons; and
  - ii. The uncontrolled VOM emissions (disregarding control provided by the oxidizer) attributable to each tank, tons/year, with supporting calculations, calculated utilizing an approved USEPA methodology, such as the current version of the TANKS program.
  - iii. The controlled VOM emissions attributable to the affected tanks after considering the reduction in emissions provided by the add-on control system, with supporting calculations.

#### 7.5.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected tank 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:
  - i. Any loading of organic liquid with a true vapor pressure greater than or equal to 17.24 kPa (2.5 psia) in an affected tank without usage of a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.
  - ii. The Permittee shall notify the Illinois EPA Compliance Section of emissions of VOM in excess of the limits specified in Condition 7.5.6 by sending a copy of any record showing a violation to the Illinois EPA within 30 days following the occurrence of the violation.
- b. The Permittee must submit a report 60 days before the scheduled implementation date of a change from Group 2 to Group 1 for any emission point [40 CFR 63.2520(e)(10)(ii)].

#### 7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.5.12 Compliance Procedures

- a. Compliance with the requirements in Condition 7.5.5 shall be determined by the recordkeeping and reporting requirements in Condition 7.5.9 and 7.5.10.
- b. Emissions from each affected tank shall be determined by the recordkeeping requirements in Condition 7.5.9. Calculations may be based on the current version of the TANKS program or AP-42 emission factors.

## 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 April 11, 2002 (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]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
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 (MC 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

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Permit Section (MC 11)  
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

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

## 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) (1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - 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: \_\_\_\_\_

10.2 Attachment 2 - Particulate Matter Emissions from Process Emission Units

10.2.1 Section 212.321 - Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972.

- a. Except as further provided in 35 IAC Part 212, 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 this Section.
- b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = A(P)^B$$

Where:

P = Process weight rate; and  
 E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	Ton/hr
E	kg/hr	lbs/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):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	Ton/hr
E	kg/hr	lbs/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 14, 1972

Metric		English	
<u>P</u> <u>Mg/hr</u>	<u>E</u> <u>kg/hr</u>	<u>P</u> <u>Ton/hr</u>	<u>E</u> <u>lbs/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	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

Where:

P = Process weight rate in Mg/hr or Ton/hr, and  
E = Allowable emission rate in kg/hr or lbs/hr.

10.2.2 Section 212.322 - Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

- a. Except as further provided in 35 IAC Part 212, 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 units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

- b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and,  
E = Allowable emission rate; and,

- i. For process weight rates up to 27.2 Mg/hr (30 Ton/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- ii. For process weight rates in excess or 27.2 Mg/hr (30 Ton/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	Ton/hr
E	kg/hr	lbs/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

<u>Metric</u>		<u>English</u>	
<u>P</u>	<u>E</u>	<u>P</u>	<u>E</u>
<u>Mg/hr</u>	<u>kg/hr</u>	<u>Ton/hr</u>	<u>lbs/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	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

Metric		English	
P	E	P	E
<u>Mg/hr</u>	<u>kg/hr</u>	<u>Ton/hr</u>	<u>lbs/hr</u>
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

Where:

P = Process weight rate in Mg/hr or Ton/hr, and  
E = Allowable emission rate in kg/hr or lbs/hr.

### 10.3 Attachment 3 - 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. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
  - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.
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;
- Are not required to be processed as a significant permit modification; and
- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

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, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT 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.

10.4 Attachment 4 - 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

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