217/782-2113

"REVISED"

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

PERMITTEE

The C.P. Hall Company
Attn.: Regulatory Affairs Supervisor
5851 West 73rd Street
Bedford Park, Illinois 60499

Application No.: 96010056 I.D. No.: 031821ABE
Applicant's Designation: Date Received: January 22, 1996
Operation of: Chemical Manufacturing Plant and Distributor of Plasticizers
Date Issued: October 5, 1999 Expiration Date[2]: October 5, 2004
Source Location: 5851 West 73rd Street, Bedford Park, Cook County
Responsible Official: R.C. Eitel

This permit is hereby granted to the above-designated Permittee to OPERATE a Chemical Manufacturing Plant and Distributor of Plasticizers, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: August 29, 2000
Revision Date Issued: TO BE DETERMINED
Purpose of Revision: Significant Modification

This significant modification removes the source from participation in the Emission Reduction Market System (ERMS) program.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supercedes those terms and conditions of the permit for which the conflict exists. The previous permit issued October 5, 1999 is incorporated herein by reference.

Please attach a copy of this amendment and the following revised pages to the front of the most recently issued entire permit.

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

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

DES:RWB:jar

cc: Illinois EPA, FOS, Region 1
USEPA

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit.

[2] Except as provided in condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

The C.P. Hall Company
5851 West 73rd Street
Bedford Park, Illinois 60499
708/594-5978

I.D. No.: 031821ABE
Standard Industrial Classification: 2869, Industrial Organic Chemicals

1.2 Owner/Parent Company

The C.P. Hall Company
311 South Wacker, Suite 4700
Chicago, Illinois 60606

1.3 Operator

The C.P. Hall Company
5851 West 73rd Street
Bedford Park, Illinois 60499

April Truszkowski
708/594-5077

1.4 General Source Description

The C.P. Hall Company is located at 5851 West 73rd Street in Bedford Park. This source manufactures approximately 120 different products (all falling within four categories: monomeric esters, polymeric esters, transesterified monoesters, and transesterified polyesters).

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollution 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 27717
ATU	Allotment Trading Unit
BAT	Best Available Technology
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
CO	Carbon Monoxide
ERMS	Emission Reduction Market System
°F	degrees Fahrenheit
gal	gallon
hr	hour
HAP	Hazardous Air Pollutants
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
in^3	cubic inch
IPCT	Industrial Process Cooling Tower
^oK	degrees Kelvin
kg	kilogram
kPa	kilopascal
kW	kilowatt
l	liter
LAER	Lowest Achievable Emission Rate
lb	pound
m^3	cubic meter
MACT	Maximum Achievable Control Technology
Mft^3	Million cubic feet
Mg	Metric Tonnes or Megagrams
ml	milliliter
mmBtu	Million Btus
mo	month
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
pH	Measure of hydronium ion concentration
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable

	test or monitoring methods
ppm	parts per million
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
psia	pounds per square inch absolute
RMP	Risk Management Plan
SIC	Standard Industrial Classification codes
SO_2	Sulfur Dioxide
T	Ton
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
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compounds
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
VPL	Volatile Petroleum Liquid
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

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

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

Large Cuno Filter
Methanol Filter
Portable Blend Tank
Tote Bins
Plate and Frame Filter Press
Alar Filter
Sump Pits
Storage Tanks with Capacities less than 10,000 Gallons

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:

Air Compressors
Cooling Towers
Drum Heaters

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)].

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

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

Gas turbines and stationary reciprocating internal combustion engines of 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)].

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
V-1 PT	Tranter Model #Natl BD#N/A Premix Tank (V-1 Premix Tank, V-2 and V-22 Reactor Trains)	March, 1979	E-1 Condenser
V-1 RC	Receiver (V-1 Receiver, V-2 and V-22 Reactor Trains)	March, 1979	None
V-2 RA	Tranter Reactor (V-2 Reactor, V-2 Reactor Train)	October, 1980	E-2 Condenser
V-2 DC	Distillation Column (V-2 Distillation Column, V-2 Reactor Train)	October, 1980	E-2 Condenser
V-2 RB	Henders Model #3120 Reboiler (V-2 Reboiler, V-2 Reactor Train)	October, 1980	None
V-2 RC V-8	Receiver (V-2 Receiver V-8, V-2 Reactor Train)	October, 1980	None
V-2 RC V-9	Receiver (V-2 Receiver V-9, V-2 Reactor Train)	October, 1980	None
V-2 D/RC	Decanter/Receiver (V-2 Decanter/Receiver, V-2 Reactor Train)	October, 1980	None
V-3 FT	Tranter Model Finishing Tank (V-3 Finishing Tank, V-2 Reactor Train)	March, 1979	E-3 Condenser
V-2 VS	Vacuum System (V-2 Vacuum System, V-2 Reactor Train)	October, 1980	None
V-2 H	Hotwell (V-2 Hotwell, V-2 Reactor Train)	October, 1980	None
V-22 RA	Tranter Model Reactor (V-22 Reactor, V-22 Reactor Train)	October, 1980	E-22 Condenser
V-22 PC	Trumbo Model #639 Packed Column (V-22 Packed Column, V-22 Reactor Train)	October, 1980	E-22 Condenser
V-22 D	Decanter (V-22 Decanter, V-22 Reactor Train)	October, 1980	None
V-22 RC	Receiver (V-22 Receiver, V-22 Reactor Train)	October, 1980	None
V-23 FT	Tranter Finishing Tank (V-23 Finishing Tank)	March, 1979	E-23 Condenser
V-23 RC	Receiver (V-23 Receiver, V-22 Reactor Train)	March, 1979	None
V-22 VS	Vacuum System (V-22 Vacuum System, V-22 Reactor Train)	October, 1980	None
V-22 H	Hotwell (V-22 Hotwell, V-22 Reactor Train)	October, 1980	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
V-21 PT	Tranter Premix Tank (V-21 Premix Tank, V-42 and V-62 Reactor Trains)	March, 1979	E-21 Condenser
V-21 RC	Receiver (V-21 Receiver, V-42 and V-62 Reactor Trains)	March, 1979	None
V-42 RA	Henders Model #3458 Reactor (V-42 Reactor, V-42 Reactor Train)	October, 1980	E-42 Condenser
V-42 PC	Trumbo Model #650 Packed Column (V-42 Packed Column, V-42 Reactor Train)	October, 1980	E-42 Condenser
V-42 D/RC	Decanter/Receiver (V-42 Decanter/Receiver, V-42 Reactor Train)	October, 1980	None
V-42 RC	Receiver (V-42 Receiver, V-42 Reactor Train)	October, 1980	None
V-50 FT	Henders Model #3458 Finishing Tank (V-50 Finishing Tank, V-42 Reactor Train)	March, 1979	E-50 Condenser
V-50 RC	Receiver (V-50 Receiver, V-42 Reactor Train)	March, 1979	None
V-42 VS	Vacuum System (V-42 Vacuum System, V-42 Reactor Train)	October, 1980	None
V-42 H	Hotwell (V-42 Hotwell, V-42 Reactor Train)	October, 1980	None
V-60 RA	Imperial Model #1085 Reactor (V-60 Reactor, V-60 Reactor Train)	October, 1980	E-60 Condenser
V-60 DC	Pfaudler Model #SS-316/18X6 Distillation Column (V-60 Distillation Column, V-60 Reactor Train)	October, 1980	E-60 Condenser
V-60 D	Decanter (V-60 Decanter, V-60 Reactor Train)	October, 1980	None
V-60 RC	Pfaudler Model #23076 Receiver (V-60 Receiver, V-60 Reactor Train)	October, 1980	None
V-60 VP	Vacuum Pump (V-60 Vacuum Pump, V-60 Reactor Train)	October, 1980	None
V-62 RA	Henders Model #2727 Reactor (V-62 Reactor, V-62 Reactor Train)	February, 1984	E-62 Condenser
V-62 PC	Trumbo Model #737 Packed Column (V-62 Packed Column, V-62 Reactor Train)	February, 1984	E-62 Condenser
V-62 D	Decanter (V-62 Decanter, V-62 Reactor Train)	February, 1984	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
V-63 RC	PLN.M.S. Model #2509 Receiver (V-63 Receiver, V-62 Reactor Train)	February, 1984	None
V-63 FT	PMSC Model #1624 Finishing Tank (V-63 Finishing Tank, V-62 Reactor Train)	February, 1984	E-63 Condenser
V-63 D	Decanter (V-63 Decanter, V-62 Reactor Train)	February, 1984	None
V-63 RC	Receiver (V-63 Receiver, V-62 Reactor Train)	February, 1984	None
V-62 VS	Vacuum System (V-62 Vacuum System, V-62 Reactor Train)	February, 1984	None
V-62 H	Hotwell (V-62 Hotwell, V-62 Reactor Train)	February, 1984	None
WTO	Wastewater Treatment Operations	March, 1979	None
ET-1	Equalization Tank - North	October, 1988	None
ET-2	Equalization Tank - South	October, 1988	None
HT-1	Holding Tank - North	October, 1988	None
HT-2	Holding Tank - South	October, 1988	None
AABH	Adipic Acid Bulk Handling System	March, 1982	Baghouse
FP	Flaker Process Unit	April, 1986	Baghouse
S/T 71	6,000 Gallon Storage Tank (Drumming Tank East)	Unknown	None
S/T 72	6,000 Gallon Storage Tank (Drumming Tank Center)	Unknown	None
S/T 73	6,000 Gallon Storage Tank (Drumming Tank West)	Unknown	None
WDS	Warehouse Drumming Station	Unknown	None
LDS	Local Drumming Station	Unknown	None
TLP	Tankwagon Loading Pad	Unknown	None
S/T 01	7,000 Gallon Storage Tank	Unknown	None
S/T 02	7,000 Gallon Storage Tank	Unknown	None
S/T 04	12,000 Gallon Storage Tank	September, 1978	None
S/T 05	12,000 Gallon Storage Tank	August, 1978	None
S/T 07	12,000 Gallon Storage Tank	August, 1978	None
S/T 08	7,000 Gallon Storage Tank	Unknown	None
S/T 10	12,000 Gallon Storage Tank	August, 1978	None
S/T 12	12,000 Gallon Storage Tank	July, 1978	None
S/T 17	12,000 Gallon Storage Tank	August, 1978	None
S/T 18	12,000 Gallon Storage Tank	August, 1978	None
S/T 19	12,000 Gallon Storage Tank	August, 1990	None
S/T 20	12,000 Gallon Storage Tank	August, 1978	None
S/T 21	12,000 Gallon KA Steel Storage Tank	August, 1990	None
S/T 22	12,000 Gallon Storage Tank	September, 1978	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
S/T 23	10,000 Gallon Storage Tank	September, 1990	None
S/T 25	3,000 Gallon Storage Tank	Unknown	None
S/T 26	3,000 Gallon Storage Tank	Unknown	None
S/T 27	3,000 Gallon Storage Tank	Unknown	None
S/T 28	2,700 Gallon Storage Tank	Unknown	None
S/T 31	3,500 Gallon Storage Tank	Unknown	None
S/T 32	3,500 Gallon Storage Tank	Unknown	None
S/T 33	3,000 Gallon Storage Tank	Unknown	None
S/T 42	12,000 Gallon Storage Tank	August, 1978	None
S/T 43	17,000 Gallon Storage Tank	November, 1978	None
S/T 44	17,000 Gallon Storage Tank	November, 1978	None
S/T 55	12,000 Gallon Storage Tank	September, 1978	None
S/T 56	12,000 Gallon Storage Tank	July, 1978	None
S/T 57	13,000 Gallon Nooter Corp. Glycol Storage Tank	September, 1995	None
S/T 58	13,000 Gallon Nooter Corp. Storage Tank	September, 1995	None
S/T 76	5,000 Gallon Storage Tank	Unknown	None
S/T 77	8,000 Gallon Storage Tank	Unknown	None
NTR	LIQUIFLO 2,000 Gallon Storage Tank (Methanol Receiver - North)	Unknown	None
STR	Henders 3,000 Gallon Storage Tank (Methanol Receiver - South)	Unknown	None
RS1	20,000 Gallon Storage Tank (Railcar Spot #1)	March, 1980	None
RS2	20,000 Gallon Storage Tank (Railcar Spot #2)	March, 1980	None
RS3	20,000 Gallon Storage Tank (Railcar Spot #3)	March, 1980	None
RS4	20,000 Gallon Storage Tank (Railcar Spot #4)	March, 1980	None
B200	Cleaver-Brooks Model CD-200-200 Natural Gas Fired Boiler (Boiler 200 HP Steam/L-66293, 6.6892 mmBtu/hr)	Unknown	None
B300	Cleaver-Brooks Model NCB-200-300 Natural Gas Fired Boiler (Boiler 300 HP Steam/L-79394, 10.0338 mmBtu/hr)	December, 1984	None
TB-V	Vapor Model OG-5933-YHK-25 Natural Gas Fired Boiler (Therminol Boiler - Vapor, 2.5 mmBtu/hr)	Unknown	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
TB-E	Eclipse Model N/B#45764 Natural Gas Fired Boiler (Therminol Boiler - Eclipse, 5.0 mmBtu/hr)	Unknown	None
Fugitive VOM Emissions	Organic Liquid Pumps, Valves, Flanges, and Open Ended Lines	-	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 emissions.

5.1.2 This permit is issued based on the source being a major source of HAPs.

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.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. The emission of smoke or other particulate matter from any emission unit shall not exceed an opacity of greater than 30 percent, except that an opacity of greater than 30 percent but less than 60 percent shall be allowed for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 feet) radius from the center point of any other such emission unit owned or operated by the Permittee, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period, pursuant to 35 IAC 212.123 and 212.124.

5.2.3 Operating Program for Particulate Matter

a. This source shall be operated under the provisions of an operating program prepared by the Permittee and

submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

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

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

d. All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods [35 IAC 212.307].

e. Crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program [35 IAC 212.308].

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

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

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

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an

approved technician certification program pursuant to 40 CFR 82.161.

5.2.5 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.6 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

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

5.2.7 Episode Action Plan

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

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

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

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

i. Illinois EPA, Compliance Section; and

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

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

5.2.8 CAM Plan

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

5.3 Non-Applicability of Regulations of Concern

5.3.1 This permit is issued based on the source not being subject to the NESHAP for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subparts F, G, and H because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

5.3.2 This permit is issued based on the source not being subject to the NESHAP for Industrial Process Cooling

Towers, 40 CFR 63, Subpart Q, because the industrial process cooling towers are not operated with chromium-based water treatment chemicals.

5.3.3 This permit is issued based on the source not being subject to the requirements of 35 IAC 218 Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants, pursuant to 35 IAC 218.421 because the source does not manufacture the synthetic organic chemicals or polymers listed in Appendix A of 35 IAC Part 218.

5.3.4 This source is no longer subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the source's emission units no longer meet the applicability of 35 IAC 218.960(a) and (b). In particular, the emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

a. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

b. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

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:

No owner or operator of an IPCT shall use chromium-based water treatment chemicals in any affected IPCT [40 CFR 63.402].

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.

<u>Permitted Emissions of Regulated Pollutants</u>

Pollutant	Tons/Year
Nitrogen Oxides (NO_x)	8.257
Particulate Matter (PM)	27.534
Sulfur Dioxide (SO_2)	0.024
Volatile Organic Material (VOM)	249.950
HAP, not included in VOM or PM	--
TOTAL	285.756

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

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

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

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

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

5.6.2 General Records for IPCT's

To demonstrate continuing compliance with Condition 5.4 (see also 40 CFR 63.402), the owner or operator of each affected IPCT shall maintain copies of the initial notification and the notification of compliance status as required by 40 CFR 63.405 for a period of at least 5 years onsite [40 CFR 63.406(a)].

5.6.3 NSPS Recordkeeping

Any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility [40 CFR 60.7(b)]

5.6.4 Records for Storage Vessels

Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].

5.6.5 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 noncompliance with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

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

5.7.3 NSPS Reporting Requirements

Pursuant to 40 CFR 60.7(a)(1), the Permittee shall furnish the Illinois EPA written notification of the date of reconstruction of an existing facility is commenced so that it will become an affected facility subject to the provisions of 40 CFR Part 60 postmarked no later than 30 days after such date [40 CFR 60.7(a)(1)].

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Fugitive VOM Emissions

For the purpose of estimating fugitive VOM emissions from the organic liquid pumps, valves, flanges, and open ended lines, the emission factors listed Table 2-2 of the Chemical Manufacturer's Association Publication: "Improving Air Quality: Guidance for Estimating Fugitive Emissions from Equipment" are acceptable.

6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account’s balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources’ transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the “Alternative Compliance Market Account” (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2 Applicability

This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 IAC Part 205, pursuant to 35 IAC 205.200. This is

based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

6.3 Recordkeeping and Reporting

a. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.

b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in its CAAPP permit.

6.4 Federal Enforceability

Section 6.0 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Units V-2, 22, 42, 60, and V-62: Reactor Trains
Controls E-1-3, 21-23, 42, 50, 60, 62, 63: Condensers

7.1.1 Description

These reactor trains are used to manufacture four types of esters (monomeric esters, polymeric esters, transesterfied monoesters, and transesterfied polyesters). The four main reactor trains (V-2, V-22, V-42, and V-62) are all similar in size. Each of the four main reactor trains is used to manufacture any of the source's products and each is used equally throughout the year. Reactor train V-60 is also used to manufacture these same four types of esters, but has a smaller capacity and as a consequence has different batch sizes and cycle times.

As a result of occasional contamination problems between products manufactured in the same reactor vessels, the vessels must be cleaned out. The procedure involves the use of high pressure steam in completely closed system. All vessels in the five reactor trains are pressure-rated vessels that are closed-piped to the vent header system which feed to Tank 77. Based upon the surface area of the vessels and the amount of surface coating the remains after draining a vessel of its original contents, approximately 4 gallons of material per vessel is removed during the clean-out process. Due to the low volatility of the manufactured materials and from the fact that the reactors finishing tanks, and premix tanks each have condensers, approximately 10% of any volume of material generated by the vessel clean-outs will be emitted. The remainder is drained to the production floor drains and eventually collected in the Wastewater Treatment Operations. All clean-outs are performed with steam, resulting in low emissions. No solvents are used in tank or reactor cleaning.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
V-1 PT	Tranter Model #Natl BD#N/A Premix Tank (V-1 Premix Tank, V-2 and V-22 Reactor Trains)	E-1 Condenser
V-1 RC	Receiver (V-1 Receiver, V-2 and V-22 Reactor Trains)	None
V-2 RA	Tranter Reactor (V-2 Reactor, V-2 Reactor Train)	E-2 Condenser

Emission Unit	Description	Emission Control Equipment
V-2 DC	Distillation Column (V-2 Distillation Column, V-2 Reactor Train)	E-2 Condenser
V-2 RB	Henders Model #3120 Reboiler (V-2 Reboiler, V-2 Reactor Train)	None
V-2 RC V-8	Receiver (V-2 Receiver V-8, V-2 Reactor Train)	None
V-2 RC V-9	Receiver (V-2 Receiver V-9, V-2 Reactor Train)	None
V-2 D/RC	Decanter/Receiver (V-2 Decanter/Receiver, V-2 Reactor Train)	None
V-3 FT	Tranter Model Finishing Tank (V-3 Finishing Tank, V-2 Reactor Train)	E-3 Condenser
V-2 VS	Vacuum System (V-2 Vacuum System, V-2 Reactor Train)	None
V-2 H	Hotwell (V-2 Hotwell, V-2 Reactor Train)	None
V-22 RA	Tranter Model Reactor (V-22 Reactor, V-22 Reactor Train)	E-22 Condenser
V-22 PC	Trumbo Model #639 Packed Column (V-22 Packed Column, V-22 Reactor Train)	E-22 Condenser
V-22 D	Decanter (V-22 Decanter, V-22 Reactor Train)	None
V-22 RC	Receiver (V-22 Receiver, V-22 Reactor Train)	None
V-23 FT	Tranter Finishing Tank (V-23 Finishing Tank)	E-23 Condenser
V-23 RC	Receiver (V-23 Receiver, V-22 Reactor Train)	None
V-22 VS	Vacuum System (V-22 Vacuum System, V-22 Reactor Train)	None
V-22 H	Hotwell (V-22 Hotwell, V-22 Reactor Train)	None
V-21 PT	Tranter Premix Tank (V-21 Premix Tank, V-42 and V-62 Reactor Trains)	E-21 Condenser
V-21 RC	Receiver (V-21 Receiver, V-42 and V-62 Reactor Trains)	None
V-42 RA	Henders Model #3458 Reactor (V-42 Reactor, V-42 Reactor Train)	E-42 Condenser
V-42 PC	Trumbo Model #650 Packed Column (V-42 Packed Column, V-42 Reactor Train)	E-42 Condenser

Emission Unit	Description	Emission Control Equipment
V-42 D/RC	Decanter/Receiver (V-42 Decanter/Receiver, V-42 Reactor Train)	None
V-42 RC	Receiver (V-42 Receiver, V-42 Reactor Train)	None
V-50 FT	Henders Model #3458 Finishing Tank (V-50 Finishing Tank, V-42 Reactor Train)	E-50 Condenser
V-50 RC	Receiver (V-50 Receiver, V-42 Reactor Train)	None
V-42 VS	Vacuum System (V-42 Vacuum System, V-42 Reactor Train)	None
V-42 H	Hotwell (V-42 Hotwell, V-42 Reactor Train)	None
V-60 RA	Imperial Model #1085 Reactor (V-60 Reactor, V-60 Reactor Train)	E-60 Condenser
V-60 DC	Pfaudler Model #SS-316/18X6 Distillation Column (V-60 Distillation Column, V-60 Reactor Train)	E-60 Condenser
V-60 D	Decanter (V-60 Decanter, V-60 Reactor Train)	None
V-60 RC	Pfaudler Model #23076 Receiver (V-60 Receiver, V-60 Reactor Train)	None
V-60 VP	Vacuum Pump (V-60 Vacuum Pump, V-60 Reactor Train)	None
V-62 RA	Henders Model #2727 Reactor (V-62 Reactor, V-62 Reactor Train)	E-62 Condenser
V-62 PC	Trumbo Model #737 Packed Column (V-62 Packed Column, V-62 Reactor Train)	E-62 Condenser
V-62 D	Decanter (V-62 Decanter, V-62 Reactor Train)	None
V-63 RC	PLN.M.S. Model #2509 Receiver (V-63 Receiver, V-62 Reactor Train)	None
V-63 FT	PMSC Model #1624 Finishing Tank (V-63 Finishing Tank, V-62 Reactor Train)	E-63 Condenser
V-63 D	Decanter (V-63 Decanter, V-62 Reactor Train)	None
V-63 RC	Receiver (V-63 Receiver, V-62 Reactor Train)	None
V-62 VS	Vacuum System (V-62 Vacuum System, V-62 Reactor Train)	None

Emission Unit	Description	Emission Control Equipment
V-62 H	Hotwell (V-62 Hotwell, V-62 Reactor Train)	None

7.1.3 Applicability Provisions and Applicable Regulations

a. Reactor Trains V-2, V-22, V-42, V-60, and V-62 are "affected reactor trains" for the purpose of these unit-specific conditions.

b. The affected reactor trains are subject to 35 IAC 218 Subpart G, 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 Condition 7.1.3(b)(ii) (see also 35 IAC 218.302) and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

ii. Emissions of organic material in excess of those permitted by Condition 7.1.3(b)(i) (see also 35 IAC 218.301) are allowable if such emissions are controlled by a vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere [35 IAC 218.302(b)].

c. The affected reactor trains are subject to 35 IAC 218 Subpart V, Batch Operations because, pursuant to 35 IAC 218.500(d)(2), each affected reactor train contains process vents which, in the aggregate, have uncontrolled total annual mass emissions of 30,000 lb/yr or more of VOM from all products manufactured in the batch process train. Pursuant to 35 IAC 218.501:

i. Every owner or operator of a batch process train with an average flow rate, as determined in accordance with Condition 7.1.12(c)(ii) (see also 35 IAC 218.502(b)(2)), below the flow rate value calculated by the applicability equations contained in Condition 7.1.12(a) (see also 35 IAC 218.500(e)), shall reduce uncontrolled VOM emissions from such batch process train by an overall efficiency,

on average, of at least 90 percent, or 20 ppmv, per batch cycle. For purposes of demonstrating compliance with the emission limitations set forth in Condition 7.1.3(c) (see also 35 IAC 218.501), any control device meeting the criteria in Condition 7.1.3(c)(ii) (see also 35 IAC 218.501(c)) shall be deemed to achieve a control efficiency of 90 percent, or 20 ppmv, per batch cycle, as applicable [35 IAC 218.501(b)].

ii. Pursuant to 35 IAC 218.501(c), notwithstanding Condition 7.1.3(c)(i) (see also 35 IAC 218.501(b)), any source that has installed on or before March 15, 1995, any control device which is demonstrated to the Illinois EPA's satisfaction to be unable to meet the applicable control requirements of Condition 7.1.3(c) (see also 35 IAC 218.501), scrubber, or shell and tube condenser using a non-refrigerated cooling media, and such device achieves at least 81 percent control efficiency of VOM emissions, is required to meet the 90 percent emission limitation or 20 ppmv VOM concentration set forth in Condition 7.1.3(c)(i) (see also 35 IAC 218.501(b)), upon the earlier to occur of the date the device is replaced for any reason, including, but not limited to, normal maintenance, malfunction, accident, and obsolescence, or December 31, 1999. A scrubber, shell and tube condenser using a non-refrigerated cooling media, or other control device meeting the criteria of this subsection, is considered replaced when:

A. All of the device is replaced [35 IAC 218.501(c)(1)]; or

B. When either the cost to repair the device or the cost to replace part of the device exceeds 50 percent of the cost of replacing the entire device with a control device that complies with the 90 percent emission limitation or 20 ppmv VOM concentration level [35 IAC 218.501(c)(2)].

7.1.4 Non-Applicability of Regulations of Concern

a. The affected reactor trains are not subject to the NESHAP for Organic Hazardous Air Pollutants from the

Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subpart F, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected reactor trains are not subject to the requirements of 35 IAC 218 Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants, pursuant to 35 IAC 218.421 because these components are not used to manufacture the synthetic organic chemicals or polymers listed in Appendix A of 35 IAC Part 218.

c. The affected reactor trains are no longer subject to the control requirements of 35 IAC 218.966, Miscellaneous Organic Chemical Manufacturing Processes, pursuant to 35 IAC 218.960(a) and (b), which excludes process emission units regulated by 35 IAC 218 Subpart V.

7.1.5 Operational and Production Limits and Work Practices

a. To meet compliance with applicable limitations of Conditions 7.1.3(b) and 7.1.8, the Permittee shall fulfill the following actions within the specified timeframe:

i. A binding agreement shall be entered into to alter the affected reactor trains prior to November 30, 1999;

ii. An application for a construction permit for a thermal oxidizer shall be submitted to the Illinois EPA prior to March 31, 2000;

iii. The thermal oxidizer for the affected reactor trains shall be delivered to the source prior to July 31, 2000;

iv. Construction of the thermal oxidizer for the affected reactor trains shall be completed prior to September 30, 2000;

v. The thermal oxidizer for the affected reactor trains shall be fully operational and in complete compliance with Condition 7.1.3(c) (See also 35 IAC 218.500(d)(2)) and 35 IAC 218.504 by December 31, 2000.

b. The Permittee shall follow good operating practices for the condensers, including periodic inspection, routine maintenance and prompt repair of defects.

c. This permit is issued based on the cleaning of the affected reactor trains being performed with materials containing no organic material.

7.1.6 Emission Limitations

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

7.1.7 Testing Requirements

a. Upon the Illinois EPA's request, the owner or operator of a batch operation shall conduct testing to demonstrate compliance with Condition 7.1.3(c) (see also 35 IAC 218.501). The owner or operator shall, at its own expense, conduct such tests in accordance with the applicable test methods and procedures specified in Conditions 7.1.7(b) and (c) (see also 35 IAC 218.503(e) and (f) [35 IAC 218.503(a)].

b. For the purpose of demonstrating compliance with the control requirements in Condition 7.1.3(c) (see also 35 IAC 218.501), the batch operation shall be run at representative operating conditions and flow rates during any performance test [35 IAC 218.503(e)].

c. Pursuant to 35 IAC 218.503(f), the following methods in 40 CFR 60, Appendix A shall be used to demonstrate compliance with the reduction efficiency requirement set forth in Condition 7.1.3(c) (see also 35 IAC 218.501):

i. Method 1 or 1A, as appropriate, for selection of the sampling sites if the flow measuring device is not a rotameter. The control device inlet sampling site for determination of vent stream VOM composition reduction efficiency shall be prior to the control device and after the control device [35 IAC 218.503(f)(1)];

ii. Method 2, 2A, 2C, or 2D, as appropriate, for determination of gas stream volumetric flow rate flow measurements, which shall be taken continuously. No traverse is necessary when the flow-measuring device is an ultrasonic probe [35 IAC 218.503(f)(2)];

iii. Pursuant to 35 IAC 218.503(f)(3), Method 25A or Method 18, if applicable, to determine the concentration of VOM in the control device inlet and outlet;

A. The sampling time for each run shall be as follows:

I. For batch cycles less than eight hours in length, readings shall be taken continuously over the entire length of the batch cycle with a maximum of 15-minute intervals between measurements if using Method 25A. If using Method 18, readings shall be taken continuously with a maximum of 15-minute intervals between measurements throughout the batch cycle unless it becomes necessary to change the impinger train, in which case a 30-minute interval shall not be exceeded [35 IAC 218.503(f)(3)(A)(i)].

II. For batch cycles of eight hours and greater in length, the owner or operator may either test in accordance with the test procedures defined in Condition 7.1.7 (c)(iii)(A)(I) (see also 35 IAC 218.503(f)(3)(A)(i)) or the owner or operator may elect to perform tests, pursuant to either Method 25A or Method 18, only during those portions of each emission event which define the emission profile of each emission event occurring within the batch cycle. For each emission event of less than four hours in duration, the owner or operator shall test continuously over the entire emission event as set forth in Condition 7.1.7(c)(iii)(A)(I) (see also 35 IAC 218.503 (f)(3)(A)(i)). For each emission event of greater than four hours in duration, the owner or operator shall elect either to perform a minimum of three one hour test runs during the emission event or shall

test continuously over the entire emission event within each single unit operation in the batch process train. To demonstrate that the portion of the emission event to be tested define the emission profile for the emission event, the owner or operator electing to rely on this option shall develop an emission profile for the entire emission event. Such emission profile shall be based upon either process knowledge or test data collected. Examples of information that could constitute process knowledge include, but are not limited to, calculations based on material balances and process stoichiometry. Previous test results may be used provided such results are still relevant to the current process vent stream conditions [35 IAC 218.503(f)(3)(A)(ii)].

III. For purposes of Condition 7.1.7(c)(iii) (see also 35 IAC 218.503(f)(3)), the term "emission event" shall be defined as a discrete period of venting that is associated with a single unit operation. For example, a displacement of vapor resulting from the charging of a single unit operation with VOM will result in a discrete emission event that will last through the duration of the charge and will have an average flow rate equal to the rate of the charge. The expulsion of expanded single unit operation vapor space when the vessel is heated is also an emission event. Both of these examples of emission events and others may occur in the same single unit operation during the course of the batch cycle. If the flow rate measurement for any emission event is zero, in accordance with Condition 7.1.7(c)(ii) (see also 35 IAC 218.503(f)(2)), then such event is not an emission event for

purposes of Condition 7.1.7 (see also 35 IAC 218.503) [35 IAC 218.503(f)(3)(A)(ii)].

B. The mass emission rate from the process vent or inlet to the control device shall be determined by combining concentration and flow rate measurements taken simultaneously at sampling sites selected in accordance with Condition 7.1.7(c)(i) (see also 35 IAC 218.503(f)(1)) throughout the batch cycle [35 IAC 218.503(f)(3)(B)];

C. The mass emission rate from the control device outlet shall be obtained by combining concentration and flow rate measurements taken simultaneously at sampling sites selected in accordance with Condition 7.1.7(c)(i) (see also 35 IAC 218.503(f)(1)) throughout the batch cycle [35 IAC 218.503(f)(3)(C)]; and

D. The efficiency of the control device shall be determined by integrating the mass emission rates obtained in Conditions 7.1.7(c)(iii)(B) and (c)(iii)(C) (see also 35 IAC 218.503(f)(3)(B) and (f)(3)(C)), over the time of the batch cycle and dividing the difference in inlet and outlet mass flow totals by the inlet mass flow total [35 IAC 218.503(f)(3)(D)].

d. Upon request by the Illinois EPA to conduct testing, an owner or operator of a batch operation which has installed a scrubber, a shell and tube condenser using a non-refrigerated cooling media, or any other control device which meets the criteria of Condition 7.1.3(c)(ii) (see also 35 IAC 218.501(c)), shall demonstrate that such device achieves the control efficiency applicable within Condition 7.1.3(c) (see also 35 IAC 218.501) upon the earlier to occur of the date the device is replaced or December 31, 1999 [35 IAC 218.503(g)].

e. The owner or operator of a batch operation may propose an alternative test method or procedures to demonstrate compliance with the control requirements set forth in Condition 7.1.3(c) (see also 35 IAC 218.501). Such method or procedures shall be approved by the Illinois EPA and USEPA as evidenced by

federally enforceable permit conditions [35 IAC 218.503(h)].

f. In the absence of a request by the Illinois EPA to conduct performance testing in accordance with the provisions of Condition 7.1.7 (see also 35 IAC 218.503), a source may demonstrate compliance by the use of engineering estimates or process stoichiometry [35 IAC 218.503(i)].

7.1.8 Monitoring Requirements

a. Pursuant to 35 IAC 218.504(d), every owner or operator using a condenser to comply with Condition 7.1.3(c) (see also 35 IAC 218.501) shall install, calibrate, maintain, and operate, according to manufacturer's specifications, the following:

i. A condenser exit temperature monitoring device equipped with a continuous recorder and having an accuracy of ± 1 percent of the temperature being monitored expressed in degrees Celsius [35 IAC 218.504(d)(1)]; or

ii. A VOM monitoring device used to indicate the concentration of VOM such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder [35 IAC 218.504(d)(2)].

b. The owner or operator of a process vent shall be permitted to monitor by an alternative method or may monitor parameters other that those listed in Condition 7.1.8(a) (see also 35 IAC 218.504(a) through (f)), if approved by the Illinois EPA and USEPA. Such alternative method or parameters shall be contained in the source's operating permit as federally enforceable permit conditions [35 IAC 218.504(g)].

c. Notwithstanding Conditions 7.1.8(a) and (b) (see also 35 IAC 218.504(a) through (g)), sources using a scrubber, shell and tube condenser using a non-refrigerated cooling media, or other control device meeting the criteria of Condition 7.1.3(c)(ii) (see also 35 IAC 218.501(c)), are required to monitor compliance with the requirements of Condition 7.1 (see also 35 IAC 218 Subpart V) on and after the earlier to occur of the date such device is replaced for any reason or December 31, 1999 [35 IAC 218.504(h)].

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 reactor trains to demonstrate compliance with Conditions 5.5.1, 7.1.3, 7.1.5, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the efficiency of each capture system and control device 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.

b. Pursuant to 35 IAC 218.505(c)(3), every owner or operator of a batch operation subject to the control requirements of Condition 7.1.3(c) (see also 35 IAC 218.501) shall keep records of the following parameters required to be monitored under Condition 7.1.8 (see also 35 IAC 218.504):

   i. Where a condenser is used, the average exit (product side) temperature measured continuously and averaged over the same time period as the performance test while the vent stream is routed normally [35 IAC 218.505(c)(3)(B)];

   ii. As an alternative to Condition 7.1.9(b)(i) (see also 35 IAC 218.505(c)(3)(B)), at a minimum, records indicating the concentration level or reading indicated by the VOM monitoring device at the outlet of the condenser, measured continuously and averaged over the same time period as the performance test (while the vent stream is routed normally) [35 IAC 218.505(c)(3)(D)].

c. An owner or operator of a batch operation subject to the control requirements of Condition 7.1.7(c) (see also 35 IAC 218.501) may maintain alternative records other than those listed in Condition 7.1.9(b) (see also 35 IAC 218.505(c)). Any alternative recordkeeping shall be approved by the Illinois EPA and USEPA and shall be contained in the source's operating permit as federally enforceable permit conditions [35 IAC 218.505(e)].

d. Notwithstanding Conditions 7.1.9(b) and (c) (see also 35 IAC 218.505(a) through (e)), any owner or operator of a batch operation which uses either a scrubber, shell and tube condenser using non-refrigerated cooling media, or other control device meeting the criteria of Condition 7.1.3(c)(ii) (see also 35 IAC 218.501(c)), is required to monitor compliance with the requirements of Condition 7.1 (see also 35 IAC 218 Subpart V) on and after the earlier to occur of the date such device is replaced for any reason or December 31, 1999 [35 IAC 218.505(f)].

e. Every owner or operator of a batch operation required to keep records under Condition 7.1.9 (see also 35 IAC 218.505) shall maintain such records at the source for a minimum period of three years and shall make all such records available to the Illinois EPA upon request [35 IAC 218.505(h)].

f. Records addressing use of good operating practices for the condensers:

   i. Records for periodic inspection of the condensers with date, individual performing the inspection, and nature of inspection; and

   ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

g. The amount of alcohol recovered for each product produced using the affected reactor trains, lb/batch, lb/mo, and ton/yr;

h. The number of batches of each product begun in the affected reactor trains; and

i. The monthly and aggregate annual VOM emissions from the affected reactor trains based on the average amount of alcohol recovered for each product produced,

the number of batches of each product begun and condenser efficiencies, with supporting calculations.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected reactor train 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. Emissions of VOM in excess of the limits in Conditions 7.1.3(b) and/or 7.1.3(c) based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

b. The cleaning of an affected reactor train with solvents containing organic material within 30 days of becoming aware of such an occurrence.

c. The Permittee shall report on a quarterly basis to the Illinois EPA, Compliance Section to verify the actions taken towards meeting compliance with requirements of Condition 7.1.3(c) (see also 35 IAC 218.500(d)(2)) and 35 IAC 218.504 as required by Condition 7.1.5(a).

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission factors and formulas listed below:

a. Applicability equations:

i. The applicability equations in this Condition are specific to volatility [35 IAC 218.500(e)(1)].

ii. Pursuant to 35 IAC 218.500(e)(2), for purposes of this subsection, the following abbreviations apply:

A. FR = Vent stream flow rate, scfm [35 IAC 218.500(e)(2)(A)];

B. UTAME = Uncontrolled total annual mass emissions of VOM, expressed as lb/yr [35 IAC 218.500(e)(2)(B)];

C. WAV = Weighted average volatility [35 IAC 218.500(e)(2)(C)];

D. $MVOM_i$ = Mass of VOM component i [35 IAC 218.500(e)(2)(D)];

E. $MWVOM_i$= Molecular weight of VOM component i [35 IAC 218.500(e)(2)(E)]; and

F. VP_i = Vapor pressure of VOM component i [35 IAC 218.500(e)(2)(F)].

iii. Pursuant to 35 IAC 218.500(e)(3), weighted average volatility shall be calculated as follows:

$$\{(MWVOM_i)\}WAV = \frac{\sum_{i=1}^{n}\left\{(VP_i)\times\left(\frac{MVOM_i}{MWVOM_i}\right)\right\}}{\sum_{i=1}^{n}\{(MVOM_i)\}}$$

iv. Pursuant to 35 IAC 218.500(e)(4), for purposes of determining applicability, flow rate values shall be calculated as follows:

A. Pursuant to 35 IAC 218.500(e)(4)(A), low WAV has a vapor pressure less than or equal to 75 mmHg at 20C (68F), and shall use the following equation:

FR = [0.07 (UTAME)] - 1,821

B. Pursuant to 35 IAC 218.500(e)(4)(B), moderate WAV has a vapor pressure greater than 75 mmHg but less than or equal to 150 mmHg at 20°C (68°F), and shall use the following equation:

FR = [0.031 (UTAME)] - 494

C. Pursuant to 35 IAC 218.500(e)(4)(C), high WAV has a vapor pressure greater than 150 mmHg at 20°C (68°F), and shall use the following equation:

FR = [0.013 (UTAME)] - 301

v. To determine the vapor pressure of VOM, the applicable methods and procedures in 35 IAC 218.111 shall apply [35 IAC 218.500(e)(5)].

b. Pursuant to 35 IAC 218.502(a), uncontrolled total annual mass emissions shall be determined by the following methods:

i. Direct process vent emissions measurements taken prior to any release to the atmosphere, following any recovery device and prior to any control device, provided such measurements conform with the requirements of measuring the mass flow rate of VOM incoming to the control device as set forth in Conditions 7.1.7(c)(ii), (c)(iii)(A), and (c)(iii)(B) (see also 35 IAC 218.503(f)(2), (f)(3)(A) and (f)(3)(B)) [35 IAC 218.502(a)(1)]; or

ii. Pursuant to 35 IAC 218.502(a)(2), engineering estimates of the uncontrolled VOM emissions from a process vent or process vents, in the aggregate, within a batch process train, using either the potential or permitted number of batch cycles per year or total production as represented in the source's operating permit as follows:

A. Pursuant to 35 IAC 218.502(a)(2)(A), engineering estimates of the uncontrolled VOM emissions shall be based upon accepted chemical engineering principles, measurable process parameters, or physical or chemical laws and their properties. Examples of methods include, but are not limited to, the following:

1. Use of material balances based on process stoichiometry to estimate maximum VOM concentrations [35 IAC 218.502(a)(2)(A)(i)];

2. Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities [35 IAC 218.502(a)(2)(A)(ii)]; and

3. Estimation of VOM concentrations based on saturation conditions [35 IAC 218.502(a)(2)(A)(iii)].

B. All data, assumptions and procedures used in any engineering estimate shall be documented [35 IAC 218.502(a)(2)(B)].

c. Pursuant to 35 IAC 218.502(b), average flow rate shall be determined by any of the following methods:

i. Direct process vent flow rate measurements taken prior to any release to the atmosphere, following any recovery device and prior to any control device, provided such measurements conform with the requirements of measuring incoming volumetric flow rate set forth in Condition 7.1.7(c)(ii) (see also 35 IAC 218.503(f)(2)) [35 IAC 218.502(b)(1)];

ii. Pursuant to 35 IAC 218.502(b)(2), average flow rate for a single unit operation having multiple emission events or batch process trains shall be the weighted average flow rate, calculated as follows:

$$WAF = \frac{\sum_{i=1}^{n} \{AFR_i \times ADE_i\}}{\sum_{i-1}^{n} (ADE_i)}$$

Where:

WAF = Actual weighted average flow rate for a single unit operation or batch process train;

AFR_I = Average flow rate per emission event;

ADE_I = Annual duration of emission event; and

n = Number of emission events.

For purposes of this formula, the term "emission event" shall be defined as a discrete period of venting that is associated with a single unit operation. For example, a displacement of vapor resulting from the charging of a single unit operation with VOM will result in a discrete emission event that will last through the duration of the charge and will have an average flow rate equal to

the rate of the charge. The expulsion of expanded vapor space when the single unit operation is heated is also an emission event. Both of these examples of emission events and others may occur in the same single unit operation during the course of the batch cycle. If the flow rate measurement for any emission event is zero, according to Condition 7.1.7(c)(ii) (see also 35 IAC 218.503(f)(2)), then such event is not an emission event for purposes of Conditions 7.1.12(b), (c), and (d) (see also 35 IAC 218.502).

iii. Engineering estimates calculated in accordance with the requirements in Condition 7.1.12(b)(ii) (see also 35 IAC 218.502(a)(2) [35 IAC 218.502(b)(3)].

d. For purposes of determining the average flow rate for steam vacuuming systems, the steam flow shall be included in the average flow rate calculation [35 IAC 218.502(c)].

e. Compliance with Conditions 7.1.3(b) and (c) is assumed to be achieved by proper operation of the condensers, as addressed by Conditions 7.1.5(a) and 7.1.8.

f. To determine compliance with Condition 5.5.1 and 7.1.3(b), VOM emissions from the affected reactor trains shall be calculated based on the following:

Volatile Organic Material Emissions:

VOM (lb) = {(Average Amount of Alcohol Recovered for Each Product, lb)/[(Condenser Efficiency* (%)/100)] - (Average Amount of Alcohol Recovered, lb)} x (Number of Batches of Each Product) x [0.15 lb Emitted/(0.85 lb Discharged Via Contact Water + 0.15 lb Emitted)]

*As specified by manufacturer or vendor of the condenser or by testing pursuant to Condition 7.1.7

7.2 Unit WTO: Wastewater Treatment Operations

7.2.1 Description

The wastewater treatment operations perform primary treatment on contact process water that is either generated or consumed by the five reactor trains, boiler blow-down, production floor drains, and outside sewer drainage lines. Approximately 30,000 gallons per day of wastewater is treated and discharged by this operations system. Wastewater is collected in a collection sump and transferred to a free oil tank where an oil skimmer removes insoluble fats and oils. From there the water is sent to a flocculation tank where aluminum sulfate, or other flocculent, is added with a high speed agitator. The pH of the water is adjusted by automatic addition of caustic and/or sulfuric acid. A polymer coagulant is added as the water enters the dissolved air flotation unit. Solids are allowed to float, and thereby removed with an automatic skimming blade. Water passes through a weir and enters the treated sump and pumped to a holding tank where it is held during analysis for pH and fats, oils and greases. Upon approval, the treated water is dropped to the discharge sump and discharged to the sanitary sewer.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
WTO	Wastewater Treatment Operations	None
ET-1	Equalization Tank - North	None
ET-2	Equalization Tank - South	None
HT-1	Holding Tank - North	None
HT-2	Holding Tank - South	None

7.2.3 Applicability Provisions and Applicable Regulations

a. The Wastewater Treatment Operations, the Equalization Tanks, and the Holding Tanks are “affected wastewater treatment operations" for the purpose of these unit-specific conditions.

b. No person shall use any single or multiple compartment effluent water separator which receives effluent water containing 757 l/day (200 gal/day) or more of organic material from any equipment processing, refining, treating, storing or handling organic material unless such effluent water separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material

emitted to the atmosphere. Exception: If no odor nuisance exists the limitations of this subsection shall not apply if the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3°K (70°F) [35 IAC 218.141(a)].

c. No person shall cause or allow the discharge of more than 32.8 ml (2 in^3) of VOL with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) into the atmosphere from any pump or compressor in any 15 minute period at standard conditions [35 IAC 218.142].

d. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.2.4 Non-Applicability of Regulations of Concern

a. The affected wastewater treatment operations are not subject to the NESHAP for Organic Hazardous Air Pollutants from Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater, 40 CFR 63, Subpart G, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected wastewater treatment operations are not subject to the NSPS for Sewage Treatment Plants, 40 CFR 60 Subpart O, because there is no incinerator that combusts wastes containing more than 10 percent sewage sludge (dry basis) produced by municipal sewage treatment plants, or an incinerator that charges more than 1000 kg (2205 lb) per day municipal sewage sludge (dry basis) associated with these affected wastewater treatment operations.

c. The affected wastewater treatment operations are not subject to the NSPS for VOC Emissions From Petroleum Refinery Wastewater Systems, 40 CFR 60 Subpart QQQ, because the affected wastewater treatment operations are not located at a petroleum refinery.

d. The affected wastewater treatment operations are not subject to 35 IAC 218.443, Wastewater (Oil/Water) Separator, because the affected wastewater treatment operations are not located at a petroleum refinery.

e. This permit is issued based on the affected wastewater treatment operations not being subject to 35 IAC 218 Subpart TT, Other Emission Units, because the affected wastewater treatment operations do not meet the applicability of 35 IAC 218.980(a). In particular, the affected wastewater treatment operations have maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year.

7.2.5 Operational and Production Limits and Work Practices

None

7.2.6 Emission Limitations

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

a. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours (Hours/Year)	VOM Emissions (lb/hr)	VOM Emissions (ton/yr)
4 Waste Water Treatment Tanks	4,000	1.76	3.52

These limits are based on representations of the maximum hourly emission rate and the maximum operating hours.

b. The above limitations were established in Permit 73080002, pursuant to 35 IAC Part 203. 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 35 IAC Part 203 [T1].

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

7.2.7 Testing Requirements

Pursuant to Section 39.5(7)(b) of the Act, testing for the vapor pressure of the organic material in the effluent water received by the effluent water separator or

discharged from any pump or compressor shall be performed as follows:

Upon reasonable request by the Illinois EPA, the vapor pressure of the organic material in the effluent water received by the effluent water separator or discharged from any pump or compressor shall be determined according to ASTM D2879-83, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope (see 40 CFR 60.17(a)(37))

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 each affected wastewater treatment operations to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the organic material in the effluent water pursuant to Condition 7.2.7, which include the following [Section 39.5(7)(e) of the Act]:

   i. Identification of material tested;

   ii. Results of analysis;

   iii. Documentation of analysis methodology; and

   iv. Person performing analysis.

b. The operating schedule of the affected wastewater treatment operations; and

c. Monthly and annual aggregate VOM emissions from the affected wastewater treatment operations shall be maintained, based on the operating schedule and typical hourly emission rate, with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected wastewater treatment operations 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. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart TT shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The Permittee shall notify the Illinois EPA of a determination that vapor pressure of the organic material in the effluent water received by the effluent water separator is equal to or above 17.24 kPa (2.5 psia) at 294.3^{o}K (70°F) within 30 calendar days of such an occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below:

a. Compliance with Conditions 7.2.3(b) and (c) is addressed by sampling the effluent water received by the effluent water separator or discharged from any pump or compressor to verify that the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3^{o}K (70°F).

b. To determine compliance with Conditions 5.5.1, 7.2.3(c), and 7.2.6 emissions of VOM emissions from the affected wastewater treatment unit shall be determined based on an hourly emission rate of 0.837 lb/hr, which was the emission rate determined from the most recent stack test.

7.3 Unit AABH: Adipic Acid Bulk Handling
Control AAB: Baghouse

7.3.1 Description

Adipic acid is received via the truck box assembly and is conveyed by a blower mounted on the silo. The material is blown into the silo at its top through a four inch fill line. The silo acts as a separator and the residual dust is filtered out of the air stream through the dust collector mounted on the top of the silo. When the trucks are empty, they are disconnected and all connecting points are capped. The adipic acid is pneumatically conveyed from the silo to the premix tanks. This equipment is started up in an interlocked sequence. A pressure blower first starts up, followed by a vibrating bin bottom. Ambient air is drawn into the system and after an appropriate time delay, a butterfly valve opens and a rotary air lock begins to feed material into a four inch conveying line to an appropriate cyclonic use bin through a preselected bottom diverter valve. The material is separated from the air stream with the adipic acid passing through the rotary airlock and the air returning through the return conveying line to the silo. The adipic acid leaving the cyclonic use bin drops through an enclosed chute to a premix tank. All holding vessels are equipped with level controls and alarms to preclude overfilling. Time delays are intended to clear all conveying lines before the pressure blower stops to prevent plugging and resultant clean-up.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
AABH	Adipic Acid Bulk Handling System	Baghouse

7.3.3 Applicability Provisions and Applicable Regulations

a. The Adipic Acid Bulk Handling System is an “affected acid handling system” for the purpose of these unit-specific conditions.

b. The affected acid handling system is subject to the emission limits identified in Condition 5.2.2.

c. The affected acid handling system is subject to 35 IAC 212.321(a), which provides that:

i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

ii. Because the expected process weight rate for the affected acid handling system is 665 pounds per hour, the allowable PM emission rate for the affected acid handling system set by 35 IAC 212.321 is 1.41 pounds per hour.

7.3.4 Non-Applicability of Regulations of Concern

The affected acid handling system is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM_{10}, as identified in 35 IAC 212.324(a)(1).

7.3.5 Operational and Production Limits and Work Practices

The Permittee shall follow good operating practices for the baghouse, including periodic inspection, routine maintenance and prompt repair of defects.

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected acid handling system is subject to the following:

a. Emissions of particulate matter shall not exceed 37.96 tons/year. This limit is based on the allowable emission limit (35 IAC 212.321) at the maximum operating rate (20,000 lb/hr) and the maximum hours of operation (8,736 hr/yr).

b. The above limitations were established in Construction Permit 82020006, 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]

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

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

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

a. Records addressing use of good operating practices for the baghouse:

i. Records for periodic inspection of the baghouse with date, individual performing the inspection, and nature of inspection; and

ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

b. The throughput of the affected acid handling system as determined from the purchase records; ton/mo and ton/yr; and

c. The aggregate monthly and annual PM emissions from the affected acid handling system based on the throughput, and standard emission factors with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected acid handling system 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. Continued operation of the affected acid handling system with defects in the baghouse that may result in emissions of PM in excess of the allowable limits specified in Conditions 7.3.3 and/or 7.3.6 within 30 days of such an occurrence;

b. Emissions of PM in excess of the limits in Condition 7.3.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

a. Compliance with Condition 7.3.3 is assumed to be achieved by proper operation of the baghouse, as addressed by Condition 7.3.5.

b. To determine compliance with Conditions 5.5.1 and 7.3.6, PM emissions of from the affected acid handling system shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/ton)
PM	0.1

This is the emission factor for controlled adipic acid drying/cooling/storage, Table 6.2-2, AP-42, Volume I, Supplement F, January, 1995. Factor is after baghouse control device, no efficiency given.

Acid Handling Emissions (lb) = (Adipic Acid Throughput, ton) x (The Appropriate Emission Factor, lb/ton)

7.4 Unit FP: Flaker Process
Control FB: Baghouse

7.4.1 Description

The flaker process unit is used for repackaging and distribution of alcohols and stearates. The flaker unit has an attached baghouse filter capture and control system. This system captures and filters the particulate matter generated from the flaking operation. The resulting by-product "waste flake" is contained and disposed of via proper waste channels.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
FP	Flaker Process Unit	Baghouse

7.4.3 Applicability Provisions and Applicable Regulations

a. The Flaker Process Unit is an “affected flaker unit” for the purpose of these unit-specific conditions.

b. The affected flaker unit is subject to the emission limits identified in Condition 5.2.2.

c. The affected flaker unit is subject to 35 IAC 212.321(a), which provides that:

i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

ii. Because the expected process weight rate for the affected flaker unit is 11,250 pounds per hour, the allowable PM emission rate for the affected flaker unit set by 35 IAC 212.321 is 6.39 pounds per hour.

7.4.4 Non-Applicability of Regulations of Concern

The affected flaker unit is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM_{10}, as identified in 35 IAC 212.324(a)(1).

7.4.5 Operational and Production Limits and Work Practices

The Permittee shall follow good operating practices for the baghouse, including periodic inspection, routine maintenance and prompt repair of defects.

7.4.6 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.

7.4.7 Testing Requirements

None

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 flaker unit to demonstrate compliance with Condition 5.5.1 and 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records addressing use of good operating practices for the baghouse:

   i. Records for periodic inspection of the baghouse with date, individual performing the inspection, and nature of inspection; and

   ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

b. The amount of alcohol/stearate waste flake; lb/mo and ton/yr; and

c. The aggregate monthly and annual PM emissions from the affected flaker unit based on the quantity of

alcohol/stearate waste flake with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected flaker unit 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:

Continued operation of the affected flaker unit with defects in the baghouse that may result in emissions of PM in excess of the allowable limits specified in Condition 7.4.3 within 30 days of such an occurrence;

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

a. Compliance with Condition 7.4.3 is assumed to be achieved by proper operation of the baghouse, as addressed by Condition 7.4.5.

b. To determine compliance with Condition 5.5.1, PM emissions of from the affected flaker unit shall be calculated based on the following:

Particulate Matter Emissions:

PM (lb) = (Amount of Alcohol/Stearate Waste Flake, lb) x [1 - (Baghouse Efficiency* (%)/100)]

*As specified by manufacturer or vendor of the baghouse.

7.5 Units S/T 71, 72, and 73: Plasticizer Blending Operation

7.5.1 Description

The blending operation is comprised of three blending/drumming/storage tanks and uses two or more esters, which are blended together at elevated temperatures. The monomeric and polymeric esters used in the blending operation have very low vapor pressures. These tanks are also used to store product and have capacities of less than 40 cubic meters (10,566.8 gal).

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
S/T 71	6,000 Gallon Storage Tank (Drumming Tank East)	None
S/T 72	6,000 Gallon Storage Tank (Drumming Tank Center)	None
S/T 73	6,000 Gallon Storage Tank (Drumming Tank West)	None

7.5.3 Applicability Provisions and Applicable Regulations

a. Tank S/T 71, Tank S/T 72, and Tank S/T 73 are “affected tanks” for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.5.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NESHAP for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subpart F, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each

affected tank has a storage capacity less than 151,416 l (40,000 gal).

c. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subparts A and Kb, because each affected tank has a storage capacity less than 40 cubic meters.

d. The affected tanks are not subject to the requirements of 35 IAC 218 Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants, pursuant to 35 IAC 218.421 because these components are not used to manufacture the synthetic organic chemicals or polymers listed in Appendix A of 35 IAC Part 218.

e. The affected tanks are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected tanks do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected tanks and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.5.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the blending, drumming, and storage of Plasticizer and Butanol.

7.5.6 Emission Limitations

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

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

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

a. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)];

b. Identification of the material stored in each affected tank;

c. The throughput of each affected tank; gal/mo and gal/yr;

d. The operating schedule of the blending/drumming operations of the affected tanks; and

e. The annual VOM emissions from the affected tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.5.10 Reporting Requirements

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

a. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The storage of any VOL or VPL other than the material specified in Condition 7.5.5 within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

To determine compliance with Conditions 5.5.1 and 7.5.3, VOM emissions from each affected tank shall be estimated using Version 3.1 of the TANKS program.

7.6 Units WDS and LDS: Drumming Operations

7.6.1 Description

Drumming operations occur at two separate locations at the source: the warehouse drumming station and the local drumming station (drum-off directly from the reactor train). The warehouse drumming station is a closed system which uses an automated dip-leg when filling 55 gallon drums or 350 gallon totes. The automated filling system ensures that material loaded into the drum/tote is always dispensed below the container lid, reducing subsequent emissions. The local drumming station, located adjacent to the production reactor trains, is for drum-off materials that require filtering prior to drumming.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
WDS	Warehouse Drumming Station	None
LDS	Local Drumming Station	None

7.6.3 Applicability Provisions and Applicable Regulations

a. The Warehouse Drumming Station and the Local Drumming Station are “affected drumming stations” for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.6.4 Non-Applicability of Regulations of Concern

a. The affected drumming stations are not subject to the NESHAP for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subpart F, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected drumming stations are not subject to the requirements of 35 IAC 218 Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants, pursuant to 35 IAC 218.421 because these components are not used to manufacture the synthetic

organic chemicals or polymers listed in Appendix A of 35 IAC Part 218.

c. The affected drumming stations are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected drumming stations do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected drumming stations and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.6.5 Operational and Production Limits and Work Practices

None

7.6.6 Emission Limitations

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

7.6.7 Testing Requirements

None

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

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

a. The throughput of each affected drumming station; lb/mo and ton/yr;

b. The operating schedule of each affected drumming station; and

c. Monthly and annual aggregate VOM emissions from the affected drumming stations shall be maintained, based on the throughput of each affected drumming station, with supporting calculations.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected drumming stations 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:

Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

To determine compliance with Conditions 5.5.1 and 7.6.3, VOM emissions from each affecting drumming station shall be calculated based on the following:

Volatile Organic Material Emissions:

VOM (lb) = (Amount of Material Drummed, lb) x (0.25 lb VOM Emitted/12,000 lb Drummed)

7.7 Unit TLP: Tank Wagon Loading Pad

7.7.1 Description

The tankwagon loading pad is used both for the loading of plasticizers from bulk storage and for the loading of methanol. Due to the viscosity of the materials and the source's capabilities, tankwagons are top-loaded with the plasticizer finished products. The plasticizer materials are transferred from storage tanks to the tankwagon pad, where loading occurs. The loading of methanol into a tankwagon consists of a closed pipe system with return vent line to the receiver storage tank. The tankwagon is filled and the transfer line is "blown" with nitrogen from the wagon back to the storage tanks. A portable organic vapor analyzer with a flame ionization detector is used to monitor all attachments/connections, flanges, valves, and pumps to determine the leaking status of this equipment.

7.7.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
TLP	Tankwagon Loading Pad	None

7.7.3 Applicability Provisions and Applicable Regulations

a. The Tankwagon Loading Pad is an “affected loading operation” for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.7.4 Non-Applicability of Regulations of Concern

a. The affected loading operation is not subject to the NESHAP for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subpart F, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected loading operation is not subject to the requirements of 35 IAC 218.122(a), Loading Operations,

because emissions of organic material from the affected loading operation are less than 8 lb/hr.

c. The affected loading operation is not subject to the requirements of 35 IAC 218 Subpart Q, Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants, pursuant to 35 IAC 218.421 because these components are not used to manufacture the synthetic organic chemicals or polymers listed in Appendix A of 35 IAC Part 218.

d. The affected loading operation is not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected loading operation does not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected loading operation and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.7.5 Operational and Production Limits and Work Practices

None

7.7.6 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.

7.7.7 Testing Requirements

None

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected loading operation to demonstrate compliance with Conditions 5.5.1 and 7.7.3, pursuant to Section 39.5(7)(b) of the Act:

a. The throughput of plasticizer material for the affected loading operating, lb/mo and ton/yr;

b. The throughput of methanol for the affected loading operation, lb/mo and ton/yr;

c. The number of tank wagons loads of methanol;

d. The operating schedule of each affected loading operation; and

e. Monthly and annual aggregate VOM emissions from the affected loading operation shall be maintained, based on the throughput of each material for the affected loading operation, with supporting calculations.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected loading operating 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. Emissions of organic material in excess of 8 lb/hr within 30 days of records showing such an occurrence.

b. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors and formulas listed below:

a. To determine compliance with Conditions 5.5.1 and 7.7.3, VOM emissions from the loading of plasticizer material shall be calculated based on the following:

VOM (lb) = (Amount of Material Loaded, lb) x (0.25 lb VOM Emitted/12,000 lb Loaded)

b. To determine compliance with Conditions 5.5.1, 7.7.3 and 7.7.6, VOM emissions from the loading of methanol shall be calculated based on the following:

i. Emissions from Loading:

VOM (lb) = [(Number of Light Liquid Pumps Used) x (0.012 kg/hr/pump) x (Service Hours, hr) x (1 lb/ 2.204 kg)] + [Number of Liquid Valves Used) x (0.00171 kg/hr/valve) x (Service Hours, hr) x (1 lb/2.204 kg)] + [(Number of Light Liquid Flanges Used) x (0.00006 kg/hr/flange) x (Service Hours, hr) x (1 lb/2.204 kg)]

The emission factors in the above equation are from Table 2-2 of the Chemical Manufacturer's Association Publication: "Improving Air Quality: Guidance for Estimating Fugitive Emissions from Equipment."

ii. Emissions from Line Blowing:

VOM (lb) = (0.388 lb VOM/Tankwagon Load of Methanol) x (Number of Tankwagon Loads of Methanol)

7.8 Units S/T1: Storage Tanks Smaller Than 40 m^3

7.8.1 Description

These tanks all have capacities of less than 40 cubic meters (10,566.8 gal) and are used to store various raw materials and/or product.

7.8.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
S/T 01	7,000 Gallon Storage Tank	None
S/T 02	7,000 Gallon Storage Tank	None
S/T 08	7,000 Gallon Storage Tank	None
S/T 23	10,000 Gallon Storage Tank	None
S/T 25	3,000 Gallon Storage Tank	None
S/T 26	3,000 Gallon Storage Tank	None
S/T 27	3,000 Gallon Storage Tank	None
S/T 28	2,700 Gallon Storage Tank	None
S/T 31	3,500 Gallon Storage Tank	None
S/T 32	3,500 Gallon Storage Tank	None
S/T 33	3,000 Gallon Storage Tank	None
S/T 76	5,000 Gallon Storage Tank	None
S/T 77	8,000 Gallon Storage Tank	None

7.8.3 Applicability Provisions and Applicable Regulations

a. Each tank is an “affected tank" for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.8.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each affected tank has a storage capacity less than 151,416 l (40,000 gal).

b. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subparts A and Kb, because each affected tank has a storage capacity less than 40 cubic meters.

c. The affected tanks are not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of VOL, pursuant to 35 IAC 218.119, because the capacity of each affected tank is less than 151 m^3 (40,000 gal).

d. The affected tanks are not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts storage tanks with capacities less than 151.42 m^3 (40,000 gal) and pursuant to 35 IAC 218.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

e. The affected tanks are not subject to the requirements of 35 IAC 218.122, Loading Operations, because pursuant to 35 IAC 218.122(c), if no odor nuisance exists the limitations of this 35 IAC 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3^{o}K (70°F).

f. The affected tanks are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected tanks do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected tanks and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

   i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

   ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.8.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of the following materials:

1,3 & 1,4 - Butylene Glycol
Acids, Normal/Iso, C_6 - C_{22}
Alcohols, Normal/Iso, C_6 - C_{18}

Dimethyl Ester
Epoxidized Soybean Oil
Ethylene Glycol
Glyerine
Glycols C_2 - C_8
Glycol Ethers
Glycol Ether Esters
Methyl Esters
Plasticizers
Plasticizer and Water
Surfactants and Nonionic Surfactants
Wastewater

7.8.6 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. This permit is issued based on negligible emissions of volatile organic material from tank S/T 23. For this purpose, emissions from this emission unit shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.

b. The above limitations were established in Permit 90080008, pursuant to 35 IAC Part 203. 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 35 IAC Part 203.[T1]

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

7.8.7 Testing Requirements

None

7.8.8 Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected tanks to demonstrate compliance with

Conditions 5.5.1, and 7.8.6, pursuant to Section 39.5(7)(b) of the Act:

a. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)];

b. Identification of the material stored in each affected tank;

c. The throughput of each affected tank, gal/mo and gal/yr; and

d. The annual VOM emissions from the affected tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected loading operating 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. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The storage of any VOL or VPL other than the materials specified in Condition 7.8.5 for the affected tanks within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

c. Emissions of VOM in excess of the limitation in Condition 7.8.6 within 30 days of a record showing such an occurrence.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.8.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, Version 3.1 of the TANKS program is acceptable.

7.9 Units S/T2: Storage Tanks Between 40 m^3 and 75 m^3 Constructed Prior to July 23, 1984

7.9.1 Description

These tanks all have capacities of greater than 40 cubic meters (10,566.8 gal), but are less than 75 cubic meters (19,815.75 gal) and are used to store various raw materials and/or product. These tanks were constructed, reconstructed and/or modified prior to July 23, 1984.

7.9.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
S/T 04	12,000 Gallon Storage Tank	None
S/T 05	12,000 Gallon Storage Tank	None
S/T 07	12,000 Gallon Storage Tank	None
S/T 10	12,000 Gallon Storage Tank	None
S/T 12	12,000 Gallon Storage Tank	None
S/T 17	12,000 Gallon Storage Tank	None
S/T 18	12,000 Gallon Storage Tank	None
S/T 20	12,000 Gallon Storage Tank	None
S/T 22	12,000 Gallon Storage Tank	None
S/T 42	12,000 Gallon Storage Tank	None
S/T 43	17,000 Gallon Storage Tank	None
S/T 44	17,000 Gallon Storage Tank	None
S/T 55	12,000 Gallon Storage Tank	None
S/T 56	12,000 Gallon Storage Tank	None

7.9.3 Applicability Provisions and Applicable Regulations

a. Each tank is an “affected tank" for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.9.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each

affected tank has a storage capacity less than 151,416 l (40,000 gal).

b. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because construction, reconstruction, or modification of each affected tank was commenced prior to July 23, 1984.

c. The affected tanks are not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of VOL, pursuant to 35 IAC 218.119, because the materials stored in the affected tanks have maximum true vapor pressures of less than 0.5 psia and the capacities are less than 151 m^3 (40,000 gal).

d. The affected tanks are not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts stationary storage tanks with a capacity less than 151.42 m^3 (40,000 gal) and pursuant to 35 IAC 218.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

e. The affected tanks are not subject to the requirements of 35 IAC 218.122, Loading Operations, because pursuant to 35 IAC 218.122(c), if no odor nuisance exists the limitations of this 35 IAC 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3^{o}K (70°F).

f. The affected tanks are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected tanks do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected tanks and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

   i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

   ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.9.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of the following materials:

1,3 & 1,4 - Butylene Glycol
Acids, Normal/Iso, C_6 - C_{22}
Alcohols, Normal/Iso, C_6 - C_{18}
Dimethyl Ester
Epoxidized Soybean Oil
Ethylene Glycol
Glyerine
Glycols C_2 - C_8
Glycol Ethers
Glycol Ether Esters
Methyl Esters
Plasticizers
Plasticizer and Water
Surfactants and Nonionic Surfactants
Wastewater

7.9.6 Emission Limitations

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

7.9.7 Testing Requirements

None

7.9.8 Monitoring Requirements

None

7.9.9 Recordkeeping Requirements

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

a. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].

b. Identification of the material stored in each affected tank;

c. The throughput of each affected tank, gal/mo and gal/yr; and

d. The annual VOM emissions from each affected tank based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance 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:

a. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The storage of any VOL or VPL other than the materials specified in Condition 7.9.5 for the affected tanks within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.9.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, Version 3.1 of the TANKS program is acceptable.

7.10 Units S/T3: Storage Tanks Between 40 m^3 and 75 m^3 Constructed After July 23, 1984

7.10.1 Description

These tanks all have capacities of greater than 40 cubic meters (10,566.8 gal), but are less than 75 cubic meters (19,815.75 gal) and are used to store various raw materials and/or product. These tanks were constructed, reconstructed and/or modified after July 23, 1984.

7.10.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
S/T 19	12,000 Gallon Storage Tank	None
S/T 21	12,000 Gallon KA Steel Storage Tank	None
S/T 57	13,000 Gallon Nooter Corp. Storage Tank	None
S/T 58	13,000 Gallon Nooter Corp. Storage Tank	None

7.10.3 Applicability Provisions and Applicable Regulations

a. Each tank is an “affected tank" for the purpose of these unit-specific conditions.

b. The affected tanks are subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because each affected tank has a capacity greater than or equal to 40 m^3 and is used to store VOL's for which construction, reconstruction, or modification is commenced after July 23, 1984.

c. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.10.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification

Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each affected tank has a storage capacity less than 151,416 l (40,000 gal).

b. Except as provided in Condition 7.10.9(a) (see also 40 CFR 60.116b) storage vessels with design capacity less than 75 m^3 are exempt from the General Provisions of the NSPS and from the provisions of 40 CFR 60 Subpart Kb [40 CFR 60.110b(b)].

c. The affected tanks are not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of VOL, pursuant to 35 IAC 218.119, because the materials stored in the affected tanks have maximum true vapor pressures of less than 0.5 psia and the capacities are less than 151 m^3 (40,000 gal).

d. The affected tanks are not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts stationary storage tanks with a capacity less than 151.42 m^3 (40,000 gal) and pursuant to 35 IAC 218.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

e. The affected tanks are not subject to the requirements of 35 IAC 218.122, Loading Operations, because pursuant to 35 IAC 218.122(c), if no odor nuisance exists the limitations of this 35 IAC 218.122 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).

f. The affected tanks are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected tanks do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected tanks and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.10.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of the following materials:

1,3 and 1,4 - Butylene Glycol
Acids, Normal/Iso, C_6 - C_{22}
Alcohols, Normal/Iso, C_6 - C_{18}
Dimethyl Ester
Epoxidized Soybean Oil
Ethylene Glycol
Glyerine
Glycols C_2 - C_8
Glycol Ethers
Glycol Ether Esters
Methyl Esters
Plasticizers
Plasticizer and Water
Surfactants and Nonionic Surfactants
Wastewater

7.10.6 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. This permit is issued based on negligible emissions of volatile organic material from tanks S/T 57 and S/T 58. For this purpose, emissions from each such emission unit shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.

b. The above limitations were established in Permit 95070037, pursuant to 35 IAC Part 203. 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 35 IAC Part 203.[T1]

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

7.10.7 Testing Requirements

None

7.10.8 Monitoring Requirements

None

7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected tanks to demonstrate compliance with Conditions 5.5.1, 7.10.3 and 7.10.6, pursuant to Section 39.5(7)(b) of the Act:

a. The owner or operator of each storage vessel for which construction, reconstruction, or modification is commenced after July 23, 1984 with a design capacity greater than or equal to 40 m^3, but less than 75 m^3 shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m^3 is subject to no other provision of 40 CFR 60 Subpart Kb other than those required by this paragraph. This record shall be kept for the life of the source [40 CFR 60.110b(a), 60.116b(a), and 60.116b(b)].

b. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].

c. Identification of the material stored in each affected tank;

d. The throughput of each affected tank, gal/mo and gal/yr; and

e. The annual VOM emissions from each affected tank based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance 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:

a. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days

from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The storage of any VOL or VPL other than the materials specified in Condition 7.10.5 for the affected tanks within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

c. Emissions of VOM in excess of the limitations in Condition 7.10.6 within 30 days of a record showing such an occurrence.

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.10.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.10.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, Version 3.1 of the TANKS program is acceptable.

7.11 Units NTR and STR: Methanol Receivers (North and South)

7.11.1 Description

These tanks all have capacities of less than 40 cubic meters (10,566.8 gal) and are used to store methanol.

7.11.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
NTR	LIQUIFLO 2,000 Gallon Methanol Storage Tank (Methanol Receiver - North)	None
STR	Henders 3,000 Gallon Methanol Storage Tank (Methanol Receiver - South)	None

7.11.3 Applicability Provisions and Applicable Regulations

a. Methanol Receiver - North and Methanol Receiver - South are “affected tanks" for the purpose of these unit-specific conditions.

b. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is 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 218.108 [35 IAC 218.122(b)].

c. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.11.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NESHAP for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 40 CFR 63, Subpart F, because the source does not manufacture as a primary product one or more of the chemicals listed in table 1 of 40 CFR 63 Subpart F.

b. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each affected tank has a storage capacity less than 151,416 l (40,000 gal).

c. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subparts A and Kb, because each affected tanks have storage capacities less than 40 cubic meters.

d. The affected tanks are not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of VOL, pursuant to 35 IAC 218.119, because the affected tanks are not used to store a petroleum liquid and the capacity of each affected tank is less than 151 m^3 (40,000 gal).

e. The affected tanks are not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts storage tanks with capacities less than 151.42 m^3 (40,000 gal) and pursuant to 35 IAC 218.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

7.11.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of methanol.

7.11.6 Emission Limitations

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

7.11.7 Testing Requirements

None

7.11.8 Monitoring Requirements

None

7.11.9 Recordkeeping Requirements

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

a. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].

b. Design information for the affected tanks showing the presence of permanent submerged loading pipes;

c. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;

d. Identification of the material stored in each affected tank;

e. The throughput of each affected tank, gal/mo and gal/yr; and

f. The annual VOM emissions from the affected tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.11.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance 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:

a. Any storage of VOL in an affected tank that is not in compliance with the requirements of Conditions 7.11.3(b) (see also 35 IAC 218.122(b)), e.g., no "permanent submerged loading pipe," within five days of becoming aware of the non-compliance status. 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.

b. Any storage of VOL in an affected tank that is out of compliance with the requirements of Conditions 7.11.3(b) (see also 35 IAC 218.122(b)) due to damage, deterioration, or other condition of the loading pipe, within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

c. Emissions of VOM in excess of the limits in Conditions 7.11.3(c) based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

d. The storage of any VOL or VPL in the affected tanks other than the material specified in Condition 7.11.5(a) within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.11.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.11.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, Version 3.1 of the TANKS program is acceptable.

7.12 Units RS 1-4: Railcar Spots #1 - #4

7.12.1 Description

All four of these tanks all have capacities of greater than 75 cubic meters (19,815.75 gal), but are less than 151 cubic meters (39,889.67 gal) and store liquids with maximum true vapor pressures less than 15.0 kPa (2.1755 psi).

7.12.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
RS1	20,000 Gallon Storage Tank (Railcar Spot #1)	None
RS2	20,000 Gallon Storage Tank (Railcar Spot #2)	None
RS3	20,000 Gallon Storage Tank (Railcar Spot #3)	None
RS4	20,000 Gallon Storage Tank (Railcar Spot #4)	None

7.12.3 Applicability Provisions and Applicable Regulations

a. Railcar Spot #1, Railcar Spot #2, Railcar Spot #3, and Railcar Spot #4 are “affected tanks" for the purpose of these unit-specific conditions.

b. 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 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.12.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each affected tank has a storage capacity less than 151,416 l (40,000 gal).

b. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification

Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because construction, reconstruction, or modification of each affected tank was commenced prior to July 23, 1984.

c. The affected tanks are not subject to the limitations of 35 IAC 218.120, Control Requirements for Storage Containers of VOL, pursuant to 35 IAC 218.119, because the materials stored in the affected tanks have maximum true vapor pressures of less than 0.5 psia and the capacities are less than 151 m^3 (40,000 gal).

d. The affected tanks are not subject to the requirements of 35 IAC 218.121, Storage Containers of VPL, pursuant to 35 IAC 218.123(a)(2), which exempts stationary storage tanks with a capacity less than 151.42 m^3 (40,000 gal) and pursuant to 35 IAC 218.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

e. The affected tanks are not subject to the requirements of 35 IAC 218.122, Loading Operations, because pursuant to 35 IAC 218.122(c), if no odor nuisance exists the limitations of this 35 IAC 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3^{o}K (70°F).

f. The affected tanks are not subject to the control requirements of 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes, because the affected tanks do not meet the applicability of 35 IAC 218.960(a) and (b). In particular, the affected tanks and all other process emission units at the source not regulated by 35 IAC 218 Subparts B and V have:

   i. Maximum theoretical emissions of VOM that are less than 90.7 Mg (100 tons) per year; and

   ii. A potential to emit for VOM that is less than 22.7 Mg (25 tons) per year.

7.12.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of Cetyl Alcohol, Epoxidized Soybean Oil, Aliphatic Dibasic Ester, and Alcohols.

7.12.6 Emission Limitations

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

7.12.7 Testing Requirements

None

7.12.8 Monitoring Requirements

None

7.12.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected loading operation to demonstrate compliance with Conditions 5.5.1 and 7.12.3, pursuant to Section 39.5(7)(b) of the Act:

a. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [35 IAC 218.129(f)].

b. Identification of the material stored in each affected tank;

c. The throughput of each affected tank, gal/mo and gal/yr; and

d. The annual VOM emissions from each affected tank based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.12.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance 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:

a. Upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 IAC 218 Subpart RR shall submit records to the Illinois EPA within 30 calendar days

from the date of the request that document that the emission unit is exempt from those requirements [35 IAC 218.990].

b. The storage of any VOL or VPL other than the materials specified in Condition 7.12.5 for each affected tank within 30 days of becoming aware of the non-compliance status. 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 to be taken to avoid future non-compliance.

7.12.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.12.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.12.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, Version 3.1 of the TANKS program is acceptable.

7.13 Units B200, TB-V and TB-E: Natural Gas Boilers (< 10 mmBtu/hr)

7.13.1 Description

This source utilizes natural gas-fired boilers to produce both heat and steam. These units have maximum heat input ratings exceeding 0.3 mmBtu/hr, but are less than 10 mmBtu/hr and fire only natural gas.

7.13.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
B200	Cleaver-Brooks Model CD-200-200 Natural Gas Fired Boiler (Boiler 200 HP Steam/L-66293)	6.6892 mmBtu/hr
TB-V	Vapor Model OG-5933-YHK-25 Natural Gas Fired Boiler (Therminol Boiler - Vapor)	2.5 mmBtu/hr
TB-E	Eclipse Model N/B#45764 Natural Gas Fired Boiler (Therminol Boiler - Eclipse)	5.0 mmBtu/hr

7.13.3 Applicability Provisions and Applicable Regulations

a. Boilers B200, TB-V, and TB-E are "affected boilers" for purposes of these unit-specific conditions.

b. Each affected boiler is subject to the emission limits identified in Condition 5.2.2.

7.13.4 Non-Applicability of Regulations of Concern

a. The New Source Performance Standard for Small-Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units that have a maximum design heat input capacity of 29 MW (100 mmBtu/hr) or less, but greater than or equal to 2.9 MW (10 mmBtu/hr). The affected boilers have maximum design heat input capacities of less than 2.9 MW (10 mmBtu/hr), therefore, this regulation does not apply.

b. The affected boilers are not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the actual heat input of each affected boiler is less than 2.9 MW (10 mmBtu/hr).

c. The affected boilers are not subject to 35 IAC 217.121, emissions of nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each affected boiler is less than 73.2 MW (250 mmBtu/hr).

d. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, use of organic material.

7.13.5 Operational and Production Limits and Work Practices

The affected boilers shall only be operated with natural gas as the fuel.

7.13.6 Emission Limitations

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

7.13.7 Testing Requirements

None

7.13.8 Monitoring Requirements

None

7.13.9 Recordkeeping Requirements

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

a. Records of the fuel usage for the affected boilers, Mft^3/mo and Mft^3/yr; and

b. Records of the monthly and annual aggregate NO_x, PM, SO_2, and VOM emissions from the affected boilers shall be maintained, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.13.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected boilers 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:

N/A

7.13.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.13.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.13.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1, emissions from the affected boilers shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/Mft^3)
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

Boiler Emissions (lb) = (Natural Gas Consumed, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

7.14 Unit B300: Natural Gas Boiler (> 10 mmBtu/hr)

7.14.1 Description

Boilers are used to provide steam and for comfort heating within the source. This boiler combusts natural gas exclusively, with a rated firing rate that exceeds 10 mmBtu/hr, but is less than 100 mmBtu/hr.

7.14.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
B300	Cleaver-Brooks Model NCB-200-300 Natural Gas Fired Boiler (Boiler 300 HP Steam/L-79394)	10.0338 mmBtu/hr

7.14.3 Applicability Provisions and Applicable Regulations

a. Boilers B300 is an "affected boiler" for purposes of these unit-specific conditions.

b. The affected boiler is subject to the emission limits identified in Condition 5.2.2.

c. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

7.14.4 Non-Applicability of Regulations of Concern

a. The affected boiler is not subject to the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc, because construction, modification, or reconstruction of the affected boiler commenced prior to June 9, 1989.

b. The affected boiler is not subject to 35 IAC 217.121, emissions or nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each of these affected boilers is less than 73.2 MW (250 mmBtu/hr).

c. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, Use Of Organic Material.

7.14.5 Operational and Production Limits and Work Practices

The affected boiler shall only be operated with natural gas as the fuel.

7.14.6 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.

7.14.7 Testing Requirements

None

7.14.8 Monitoring Requirements

None

7.14.9 Recordkeeping Requirements

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

a. Records of the fuel usage for the affected boiler, Mft^3/mo and Mft^3/yr; and

b. Records of the monthly and annual aggregate NO_x, PM, SO_2, and VOM emissions from the affected boiler shall be maintained, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.14.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the 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:

None

7.14.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.14.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.14.9 and the emission factors and formulas listed below:

a. Compliance with Conditions 7.14.3(b) and (c) is assumed by the work-practices inherent in operation of a natural gas-fired boiler, so that no compliance procedures are set in this permit addressing this regulation.

b. To determine compliance with Condition 5.5.1, emissions from the affected boiler shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/Mft^3)
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

Boiler Emissions (lb) = (Natural Gas Consumed, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

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 June 19, 1999 (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].

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 without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA,

emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change and 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 [Section 39.5(12)(a) of the Act]. This notice shall:

a. Describe the physical or operational change;

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

c. 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;

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

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

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

Monitoring Period	Report Due Date

January - June	September 1
July - December	March 1

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

8.6.2 Test Notifications

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

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

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

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

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

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

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

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

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion

of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

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

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

c. The date any analyses were performed;

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

e. The test and analytical methodologies used;

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

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

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

8.6.4 Reporting Addresses

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

i. Illinois EPA - Air Compliance Section

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

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

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

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section
P.O. Box 19506

Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

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

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

8.7 Obligation to comply with Title I requirements

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

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

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

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

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

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

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

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

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

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner

unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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; 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.

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

9.8 Requirements for Compliance Certification

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

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

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

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

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

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

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

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

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

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

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

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

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

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

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records

required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1: Emissions of Particulate Matter from New Process Emission Units

10.1.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

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

b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

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

Where:

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

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

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

ii. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.2 Attachment 2: 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: _____

RWB:jar

217/782-2113 CERTIFIED MAIL

REQUEST FOR ADDITIONAL INFORMATION
CAAPP PERMIT APPLICATION

October 5, 2000

The C.P. Hall Company
Attn.: Regulatory Affairs Supervisor
5851 West 73rd Street
Bedford Park, Illinois 60638

Application No.: 96010056
I.D. No.: 031821ABE
Date Received: August 29, 2000
Source Location: Bedford Park, Illinois

The application for the above-referenced Clean Air Act Permit Program (CAAPP) permit lacks information necessary to evaluate the source and to take final action on the CAAPP application. Therefore, pursuant to Section 39.5(5)(g) of the Illinois Environmental Protection Act (Act) and 35 Ill. Adm. Code 270.305, the Illinois EPA requests the following information:

The application must be amended to contain the necessary information to allow the Illinois EPA to reopen the permit for revision under the appropriate revision classification in accordance with 39.5(13) and (14) of the Act and 35 IAC 270.302. The application does not specify the type of revision being requested for the CAAPP permit. 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 applicant must determine, request, and supply 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.

I. Administrative Permit Amendment

- Corrects typographical errors;

- Changes name, address, or phone number of any person identified in the permit, or similar change at the source;

- Requires more frequent monitoring or reporting;

- Changes ownership or operational control of source, provided that a written agreement containing a specific date for transfer of

permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Illinois EPA;

- Incorporates construction permits, provided conditions meet requirements of CAAPP permits;

- Incorporates economic incentives rule, marketable permits rule, or generic emissions trading rule conditions.

II. 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:

  1. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Clean Air Act; and

  2. An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act.

- Are not modifications under any provision of Title I of the Clean Air Act; and

- Are not required to be processed as a significant modification.

An application for minor permit modifications shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- The source’s suggested draft permit/conditions;

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

III. Significant Permit Modification

- Applications not qualifying as either minor permit modifications or administrative permit amendments;
- Applications requesting significant change in existing monitoring permit conditions;
- Applications requesting relaxation of reporting or record keeping 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.

The Illinois EPA requires the information on the following appropriate form be submitted in accordance with the proper classification:

- Form 273-CAAPP, Request For Administrative Amendment For CAAPP Permit; or
- Form 271-CAAPP, Minor Permit Modification For CAAPP Permit; or
- Form 200-CAAPP, Application For CAAPP Permit (For Significant Modifications).

Applications forms can be obtained from the Illinois EPA website at www.epa.state.il.us/air/forms.

A preliminary assessment by the Illinois EPA indicates that the appropriate classification is minor permit modification.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Failure to submit the requested information by November 3, 2000, may require the Illinois EPA to deny this application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on the above-referenced application pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

If you have any questions regarding this matter, please contact Bob Bernoteit at 217/782-2113.

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

DES:RWB:FEM:psj

cc: Region 1
Julie Armitage, DLC

Enclosure: Form 273-CAAPP, Request For Administrative Amendment For CAAPP Permit
Form 271-CAAPP, Minor Permit Modification For CAAPP Permit
Form 200-CAAPP, Application For CAAPP Permit (For Significant Modifications)