

PROPOSED CAAPP PERMIT
Reichhold, Inc.
I.D. No.: 063806AAA
Application No.: 96030183
December 30, 2004

217/782-2113

"RENEWAL"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE

Reichhold, Inc.
Attn: Stan Ogradnick
6350 East Collins Road
Morris, Illinois 60450

Application No.: 96030183 I.D. No.: 063806AAA
Applicant's Designation: Date Received: February 25, 2004
Operation of: Chemical Manufacturing Plant
Date Issued: TO BE DETERMINED Expiration Date²: DATE
Source Location: 6350 East Collins Road, Morris
Responsible Official: Luiz Mello, Director of Operations, Americas

This permit is hereby granted to the above-designated Permittee to OPERATE a chemical manufacturing plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

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

DES:DGP:psj

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 CAA and regulations promulgated thereunder, including 40 CFR 52.21 - federal PSD and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

² Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Reichhold, Inc.
6350 East Collins Road
Morris, Illinois 60450
815/942-4600

I.D. No.: 063806AAA
Standard Industrial Classification: SIC, 2821
SIC, 2891 (Secondary)

1.2 Owner/Parent Company

Reichhold, Inc.
2400 Ellis Road
Durham, North Carolina 27703

1.3 Operator

Reichhold, Inc.
6350 East Collins Road
Morris, Illinois 60450

Environmental Contact
Stan Ogrodnick
919/990-7556 Ext. 213

1.4 General Source Description

The Reichhold Plant is located at 6350 East Collins Road in Morris, Grundy County. The source manufactures three classes of chemicals: latex emulsions, polyester resins and polyurethane dispersion. In addition, the plant operates boilers/heaters to supply heat for the processes and storage tanks for raw materials, intermediates and final products.

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 Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Units
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
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
Kg	Kilogram
kW	kilowatts
lb	pound
mmBtu	Million British thermal units
mo	month
MW	Megawatt
NESHAP	National Environmental Standards for Hazardous Air Pollutants
NIST	National Institutes for Standards and Technology
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
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
psia	pounds per square inch absolute
RMP	Risk Management Plan
T1	Title I - Identifies Title I conditions that have been carried over from an existing construction permit.
SO ₂	Sulfur Dioxide
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
wt. %	weight percent
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:

The following storage tanks:

Polyester Plant: S-586, S-588

Emulsion Plant: S-502, S-503, S-504, S-515, S-516,
S-517

Polyester Hot Box
Styrene Thixing Wash Tank
Polyester Additive Containers

- 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:

The following storage tanks:

Polyester Plant: S-581, S-582, S-583, S-584, S-590,
S-591, S-593, S-594

Polyurethane Dispersion: T-152, T-153, T-171 to 174,
T-601, T-501 to 504

Cooling Tower

- 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 the melting or application of less than 50,000 lbs/year of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

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)].

Equipment used for the mixing and blending of materials at ambient temperature to make water based adhesives, provided each material mixed or blended contains less than 5% organic solvent by weight [35 IAC 201.210(a)(9)].

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

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

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

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

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

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

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

3.2 Compliance with Applicable Requirements

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

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

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

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

3.2.4 For each storage tank that contains a material with a vapor pressure over 2.5 psia at 70°F and not vented to control equipment, the tank shall be equipped with a permanent submerged loading pipe [35 IAC 218.122(b)].

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
See Attachment 1	Storage Tanks		See Attachment 1
M-501, M-502, M-503	Monomer Tanks	1970/1976	None
R-101, R-102	Reactors	1970/1976	None
M-505, M-510	Cool Down Tanks	1972/1977	None
M-1	Half Ester Tank	1986	Thermal Oxidizer or HTO Backup Thermal Oxidizer
R-1 through R-7	Seven Reactors	1987/1994/ 2004	Thermal Oxidizer or HTO Backup Thermal Oxidizer
TT-1 through TT-5	Five Thin Tanks	1994/2004	Thermal Oxidizer or HTO Backup Thermal Oxidizer
BT-1 Through BT-5, BT-8 through BT-11, BT-16	Blend Tanks	1974/1986/ 2004	Thermal Oxidizer or HTO Backup Thermal Oxidizer
TL-1 through TL-4	Truck Loading Stations	2004	Thermal Oxidizer or HTO Backup Thermal Oxidizer
DM-1	Drum Filling Line	2004	Thermal Oxidizer or HTO Backup Thermal Oxidizer
	Polyurethane Tank Truck and Drum Loading	1997	Regenerative Thermal Oxidizer (PUR-RTO)
T-407A	Dispersion Tank	1997	Rotoclone (WSC-510)
R-307, T-417	Two Reactors	1997	Regenerative Thermal Oxidizer (PUR-RTO) or Rotoclone WSC-510
T-217	Weigh Tank (600 Gallons)	1997	None
	Boiler No. 1	1970	None
	Boiler No. 2	1976	None
	Oil Heater	1990	None
	Wastewater Treatment System	1970	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM and HAP emissions.

5.2 Applicable Regulations

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

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

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

Compliance with this requirement is expected based on the lack of outdoor material handling or storage activity and the overall low PM emitting rate (see Condition 5.5.1).

- b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- c. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

5.2.3 Ozone Depleting Substances

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

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

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

- a. This stationary source, as defined in 40 CFR Section 68.3, is subject to 40 CFR Part 68, the Accidental Release Prevention regulations [40 CFR 68.215(a)(1)].
- b. The owner or operator of a stationary source shall revise and update the RMP submitted, as specified in 40 CFR 68.190.

5.2.5 NESHAP Requirements (MON)

- a. This source is currently major for HAPs and will be subject to the NESHAP rule for Miscellaneous Organic Chemical Manufacturing (MON), 40 CFR 63 Subpart FFFF when compliance is required by the rule.
- b. One of requirements of the MON is submittal of a Precompliance Report six months before the final compliance date of November 10, 2006, that is May 10, 2006 [40 CFR 63.2520(c)].
- c. As part of the Precompliance Report the Permittee has the option to demonstrate that the source is not major for HAPs based on any emission testing that has been done, HAP calculations using standard emission factors and other accepted emission calculations. All emission units that emit HAPs must be included in the analysis, including fugitive emissions and insignificant emission units.
- d. If the source demonstrates that it is nonmajor for HAPs at the time of the Precompliance Report, it may operate as non major for HAPs and meet the following Condition 5.2.5(e). In addition to changing the HAP status as part of its Precompliance Report, the Permittee must also submit a request for a significant modification to revise the HAP status from major to nonmajor. Note also that officially the Permittee has until November 9, 2006 to change its HAP status if it does not have all the required information by the time of submittal of the Precompliance Report.

- e. The emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined. Compliance with these limits shall be based on a running total of 12 months of data, with emissions calculated using standard USEPA methodology.

This condition is being imposed at the request of the Permittee so that the source is not a major source of HAP emissions and the requirements of 40 CFR Part 63, Subpart FFFF, National Emission Standards for Miscellaneous Organic Chemical Manufacturing, do not apply to the source.

- f. Any conditions imposed by the Permittee on itself as part of the MON Precompliance Report that are necessary to remain non major for HAPs become enforceable limits of this CAAPP Permit (e.g. throughput limits, minimum efficiency of control devices, etc., and any monitoring or recordkeeping requirements to assure those limits and which are specified in the Precompliance Report).
- g. If the Permittee is not able to demonstrate that it is not major for HAPs as part of the Precompliance Report, then it will remain subject to MON requirements as follows [5.2.5(h) through (m)].
- h. The final rule for Miscellaneous Organic Chemical Manufacturing under the NESHAP, 40 CFR 63 Subpart FFFF (40 CFR 63.2430 through 63.2550 plus Tables) was published on November 10, 2003. An existing source, such as operated by the Permittee, has until November 10, 2006 to achieve compliance with the rules as promulgated at that time. If a new chemical manufacturing process unit is constructed between now and November 10, 2006, and the new unit is considered reconstruction by being more than 50% of the cost of current MON affected units, then the new unit must comply with the requirements upon startup. The standard only applies to units that use or produce HAPs.
- i. There are a number of specific standards contained within the general rule such as for batch and continuous process vents, for storage tanks, for transfer racks, for heat exchange systems, for equipment leaks and for wastewater streams. In addition to the regular standards, there options for pollution prevention standards, emissions averaging and for an alternative standard.

- j. As of the dates required by the rule, the Permittee shall comply with the following:
 - i. The notification requirements of 40 CFR 63.2515 and the applicable requirements in 40 CFR Subpart A (63.7 to 63.9).
 - ii. The recordkeeping requirements of 40 CFR 63.2525.
 - iii. The reporting requirements of 40 CFR 63.2520.
- k. The chemical manufacturing process units that emit HAPs are also subject to the general requirements 40 CFR 63 Subpart A (63.1 to 63.15). One of these requirements for units that comply by use of control equipment is to have a Startup, Shutdown and Malfunction Plan as required by 40 CFR 63.6(e) (3) by the final compliance date.
- l. This NESHAP rule was described here in Section 5 but the actual equipment affected is in Section 7. At the time of initial notification, the Permittee must identify which equipment in Section 7 uses or produces HAPs and is thus affected by this rule.
- m. The Permittee shall certify compliance with the applicable requirements of Subpart FFFF as part of the annual compliance certification required by 40 CFR Part 70 or 71 beginning in the year that compliance is required (2006).

5.2.6 NESHAP Requirements (Boilers and Heaters)

The final rule for Industrial Boilers and Process Heaters under the NESHAP, 40 CFR 63 Subpart DDDDD, was published on September 13, 2004.

The boilers and oil heater operated by the Permittee (See Section 7.5) do not meet the definition of a "large gaseous fuel subcategory" under 40 CFR 63.7575 since the oil that is burned is only during periods of gas curtailment or gas supply emergencies and therefore pursuant to 40 CFR 63.7506(b) they are only subject to the initial notification requirements in 40 CFR 63.9(b) (i.e., they are not subject to the emission limits, work practice standards, performance testing, monitoring, startup, shutdown and malfunction plan, site-specific monitoring plans, recordkeeping and reporting requirements of 40 CFR 63 Subpart DDDDD or any other requirements in Subpart A of Part 63).

Note that if the Permittee becomes a nonmajor source of HAPs [see Condition 5.2.5(d)] prior to the notification requirement then even the notification will not be required.

5.2.7 Future Regulations

- a. Should this source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC Subtitle B after the issuance date of this permit, then the owner or operator shall, in accordance with the applicable regulation, comply with the applicable requirements of such regulation by the date(s) specified and shall certify compliance with the applicable requirements of such regulation as provided by the regulation. Following the initial submittal of such a compliance certification, the Permittee shall address the applicable requirements of such regulation as part of the annual compliance certification required by Condition 9.8.
- 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.

5.2.8 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 the Illinois EPA, Compliance Section.

5.2.9 PM₁₀ Contingency Measure Plan

Should this stationary source, as defined in 35 IAC 212.700, become subject to the requirement to prepare and submit a contingency measure plan reflecting the PM₁₀ emission reductions as set forth in 35 IAC 212.703, then the owner or operator shall submit such plan to the Illinois EPA for review and approval within ninety (90) days after the date this source becomes subject to this requirement. Such plan will be incorporated by reference into this permit and shall be implemented in accordance with 35 IAC 212.704. The source shall comply with the applicable requirements of 35 IAC Part 212, Subpart U, incorporated herein by reference.

5.3 Non-Applicability of Regulations of Concern

- a. 35 IAC 218.142 states that no person shall cause or allow the discharge of more than 2 cu in of VOL with vapor pressure of 17.24kPa (2.5 psia) or greater at 70°F into the atmosphere from any pump or compressor in any 15 minute period at standard conditions. This rule does not apply because the materials handled in pumps do not have a vapor pressure greater than 2.5 psia at 70°F.
- b. 35 IAC 218 Subpart Q, "Leaks from Synthetic Organic Chemical and Polymer Manufacturing Plants" does not apply because none of the synthetic organic chemicals listed in Appendix A of Part 218 are manufactured at this source.

5.4 Source-Wide Operational and Production Limits and Work Practices

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

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	49.07
Sulfur Dioxide (SO ₂)	24.29
Particulate Matter (PM)	8.16
Nitrogen Oxides (NO _x)	96.09
HAP, not included in VOM or PM	0
Total	177.61

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

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 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., a computer software program) 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 Annual Reporting of HAP Emissions

- a. While maintaining status as major for HAPs, the Permittee shall submit an annual report to the Illinois EPA, Compliance Section, on HAP emissions from the source.
- b. If the source claims status as non-major for HAPs and thus not subject to the MON, the Permittee shall submit an annual report to the Illinois EPA, Compliance Section, on HAP emissions from the source, including the following information, so as to demonstrate whether the source is being operated as a non-major source of HAP emissions. This report shall be submitted with the Annual Emissions Report (Condition 9.7).
 - i. The annual emissions of individual HAPs for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year, (e.g., for the month of January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all); and
 - ii. The total annual emissions of all HAPs combined for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year, (e.g., for the month January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all).

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating VOM and Combustion Emissions

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

- a. For the purpose of estimating NO_x and CO emissions from the boilers and heaters, the current version of AP-42 is acceptable.
- b. For the purpose of estimating fugitive VOM emissions from equipment leaks at the source, the results from emissions testing using Method 21 shall be used. This method was also used for the ERMS baseline.
- c. Computer software programs may be used to calculate emissions, but the Illinois EPA may request the underlying methodology for the calculations.

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 shall 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 source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

6.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.5.
 - i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
 - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
 - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
 - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
 - v. VOM emissions from certain new and modified emission units as addressed by Condition 6.8(b), if applicable, in accordance with 35 IAC 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

6.4 Market Transactions

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).
- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).

- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

6.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
 - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
 - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

6.6 Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
 - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
 - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

6.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
 - i. Actual seasonal emissions of VOM from the source;
 - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
 - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
 - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
 - v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and

vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.

b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

6.8 Allotment of ATUs to the Source

a. i. The allotment of ATUs to this source is 130 ATUs per seasonal allotment period.

ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 14.684 tons per season.

A. This determination includes the use of 2002 as a baseline season, the first season for which VOM emissions exceeded 10 tons.

iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.10 of this permit.

iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.

v. Condition 6.3(a) becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.

b. Contingent Allotments for New or Modified Emission Units

Not applicable.

c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:

i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;

- ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and
- iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

- a. Seasonal component of the Annual Emissions Report;
- b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.6(a); and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.10 Exclusions from Further Reductions

- a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:
 - i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
 - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
 - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

Boilers 1 and 2

- b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

None

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit: Storage Tanks (See Attachment 1)
Control: (See Attachment 1 which lists control for individual tanks in table format.)

7.1.1 Description

Fixed roof storage tanks for raw materials, products or cleaning solvents.

7.1.2 List of Emission Units and Pollution Control Equipment

See Attachment 1 in Appendix.

7.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected tank" for the purpose of these unit-specific conditions, is a storage tank that is only subject to 35 IAC 218.301, which limits organic material emissions from any unit to 8 lb/hr. If not odor nuisance exists, the limit only applies to photochemically reactive material. Emissions in excess of 8 lb/hr is allowed if the emissions are controlled by 85%.
- b. Each affected tank is subject to the emission limits identified in Condition 5.2.2.

7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected tanks not being subject to the New Source Performance Standards (NSPS) for storage tanks, 40 CFR 60, Subparts K, Ka or Kb, because the affected tanks do not store petroleum liquids, do not meet the volume requirement to be subject, or the material stored does not meet the vapor pressure requirement to be subject, or a combination of the above.
- b. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.119 because none of the tanks store materials for which the vapor pressure is greater than 0.5 psia and the tank capacity is greater than 40,000 gallons.
- c. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.121 because the materials stored are not volatile petroleum liquids and the vapor pressure/capacity requirements are not met.

- d. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.122(b) because none of the tanks store materials with a vapor pressure greater than 2.5 psia. However, most of the storage tanks that are not vented to a control device have a submerged loading pipe.
- e. This permit is issued based on the affected storage tanks not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected storage tanks use a passive control measure, such as a seal, lid, or roof, that is not considered a control device because it acts to prevent the release of pollutants.

7.1.5 Control Requirements

The tanks that are vented to an oxidizer or scrubber must continue to be vented to those control devices. The requirements for the oxidizer are described in Condition 7.3.5.

7.1.6 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.

7.1.7 Operating Requirements

None

7.1.8 Inspection Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Conditions 5.5.1 and Condition 7.1.5(a), pursuant to Section 39.5(7)(b) of the Act: Therefore recordkeeping to verify that operation is below that rate is not required.

Operation at the design capacity of the systems would not result in emission over 8 lb/hr due to the low vapor pressure of the materials involved.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of an affected storage 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:

Storage of any material that would make the tank subject to a standard from which it is currently exempt [see Condition 7.1.4(a) through (d)].

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the storage tanks without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

The contents of the tanks may be changed provided that the vapor pressure of the material stored does not impose a new standard which the tank was not previously subject.

7.1.12 Compliance Procedures

Emissions may be calculated by a computer software program. For tanks the underlying program for the software shall be the USEPA tanks program or AP-42 emission factors for tanks.

7.2 Unit: Emulsion Plant
Control: None

7.2.1 Description

The process has three premix tanks where raw materials are mixed in the proper ratio. These materials are then sent to either of two reactors. After the reaction is complete the material is sent to cool down tanks. Blending and filtering may also occur. The product is stored as a water emulsion. The raw material and product storage tanks are listed in Section 7.1.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
M-501, M-502 and M-503	Three Process Tanks	None
R-101 and R-102	Two Reactors	None
M-505 and M-510	Two Cool Down Tanks	None

7.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected tank or reactor" for the purpose of these unit specific conditions, is a tank or reactor that is listed in Condition 7.2.2 and subject to 35 IAC 218 Subparts G and V. It is subject to Subpart V because it is in one of the specific SIC codes mentioned as applicable. Although subject to the rule, the emissions are low enough not to require implementation of the control requirements of either Subpart G or V. See Condition 7.2.6.
- b. Emissions of organic material from any emission unit shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material. Emissions in excess of 8 lb/hr are allowable if emissions are controlled by 85%. (35 IAC 218.301 and 218.302)

7.2.4 Non-Applicability of Regulations of Concern

- a. 35 IAC 218 Subpart RR applies to organic chemical manufacturing processes. However, 35 IAC 218.960 states that a process is only subject to Subpart RR if not subject to Subpart V, and this process is subject to Subpart V.
- b. While as a process unit this equipment may be subject to 35 IAC 212.322, the materials involved are liquids and do not emit PM.

- c. While the product manufactured in this equipment is a polymer, the process is not subject to 40 CFR 60 Subpart DDD (Polymer Manufacturing) because it is not one of the specific polymers listed in the applicability section [40 CFR 60.560].
- d. This permit is issued based on the affected emulsion plant not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected emulsion plant does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.2.5 Control Requirements

None

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5.1, the affected tanks and reactors are subject to the following:

Uncontrolled total annual mass emissions of VOM from the batch process train, expressed as lb/yr, shall not exceed 30,000 lb/yr or the control requirements of 35 IAC 218.501 will apply. [35 IAC 218.500(c)]

7.2.7 Operating Requirements

None

7.2.8 Inspection 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 tanks and reactors to demonstrate compliance with Conditions 5.5.1 and Condition 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Every owner or operator of a de minimis single unit operation or batch process train exempt under Section 218.500(c)(1) or (c)(2) of Subpart V shall keep records of the uncontrolled total annual mass emissions for any de minimis single unit operation or batch process train, as applicable, and documentation verifying these values or measurements. The documentation shall include the engineering calculations, any measurements made in accordance with Section 218.503 of Subpart V, and the potential number of batch cycles per year. [35 IAC 218.505(a)], or

- b. Every owner or operator of a single unit operation exempt under Section 218.500(b)(3) or (d) of Subpart V shall keep the following records:
 - i. The uncontrolled total annual mass emissions and documentation verifying these values or measurements. The documentation shall include any engineering calculations, any measurements made in accordance with Section 218.503 of Subpart V, and the potential number of batch cycles per year.
 - ii. The average flow rate in SCFM and documentation verifying this value. [35 IAC 218.505(b)]
- c. Every owner or operator of a single unit operation claiming a vent stream concentration exemption level, as set forth in Section 218.500(d)(1) of Subpart V, shall maintain records to indicate the vent stream concentration is less than or equal to 500 ppmv. [35 IAC 218.505(d)]

7.2.10 Reporting Requirements

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

- a. The Permittee shall notify the Illinois EPA in writing if the vent stream concentration at any time equals or exceeds 500 ppmv, within 60 days after such event. Such notification shall include a copy of all records of such event. [35 IAC 218.505(d)]
- b. The Permittee shall notify the Illinois EPA in writing if the uncontrolled total annual mass emissions from de minimis single unit operation or batch process train exceed the threshold in Section 218.500(c)(1) or (c)(2) of this Subpart, respectively, within 60 days after the event occurs. Such notification shall include a copy of all records of such event. [35 IAC 218.505(g)]

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to reactor ingredients without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

This process allows variations in the raw materials. However, all products must use some water in the reactor and the product must be a water emulsion.

7.2.12 Compliance Procedures

Estimates of uncontrolled emissions from tanks and reactors must be done using the procedures described in 35 IAC 218.502. A computer software program may be used to make the calculations but the underlying basis for the program must be 35 IAC 218.502.

7.3 Unit: Polyester Plant
 Control: Primary and Backup Afterburners (Thermal Oxidizers)

7.3.1 Description

The polyester resin manufacturing process is a condensation reaction occurring in one half-ester and six normal reactors. In the five thinning tanks a cross linkable monomer, usually styrene, is added to a polymer. All reactors and tanks (including the storage tanks for polyester products listed in Section 7.1) are vented to a primary thermal oxidizer or a backup Hirt unit in the event the primary oxidizer fails.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
M-1	Half Ester Tank	Thermal Oxidizer or HTO-Backup Thermal Oxidizer
R-1 through R-7	Seven Reactors	Thermal Oxidizer or HTO-Backup Thermal Oxidizer
TT-1 through TT-5	Five Thin Tanks	Thermal Oxidizer or HTO-Backup Thermal Oxidizer
BT-1 through BT-5, BT-8 through BT-11, BT-16	Blend Tanks	Thermal Oxidizer or HTO-Backup Thermal Oxidizer
TL-1 through TL-6	Truck Loading Stations	Thermal Oxidizer or HTO-Backup Thermal Oxidizer
DM-1	Drum Filling Line	Thermal Oxidizer or HTO-Backup Thermal Oxidizer

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected tank or reactor" for the purpose of these unit specific conditions, is a tank or reactor that is listed in Condition 7.3.2 and subject to 35 IAC 218 Subparts G and V. The Permittee complies by use of the thermal oxidizer, which is required to reduce uncontrolled VOM emissions by 90% or to 20 ppmv, per batch cycle. [35 IAC 218.501(b)]
- b. Emissions of organic material from any emission unit shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material. Emissions in excess of 8 lb/hr are allowable if emissions are controlled by 85%. The Permittee complies with the control equipment. [35 IAC 218.301 and 218.302]

7.3.4 Non-Applicability of Regulations of Concern

- a. 35 IAC 218 Subpart RR applies to organic chemical manufacturing processes. However, 35 IAC 218.960(a) states that a process is only subject to Subpart RR if not subject to Subpart V, and this process is subject to Subpart V.
- b. While as a process unit this equipment may be subject to 35 IAC 212.321, the materials involved are liquids and do not emit PM.
- c. While the product manufactured in this equipment is a polymer, the process is not subject to the NSPS 40 CFR 60 Subpart DDD (Polymer Manufacturing) because it is not one of the specific polymers listed in the applicability section [40 CFR 60.560].

7.3.5 Control Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7) (a) of the Act:

- a. As stated in Condition 7.3.3, the applicable Part 218 rule requires 90% control or reduce emissions to 20 ppmv of VOM. When additional reactors and other equipment were added in Construction Permit 03040054, the Permittee voluntarily agreed to accept a condition requiring the thermal oxidizer to operate at 98% destruction efficiency.
- b. The primary thermal oxidizer combustion shall be preheated to the manufacturer's recommended temperature but not lower than 1400°F, before the resin process is begun; this temperature shall be maintained during the resin process. This latter requirement also applies to the secondary oxidizer when the primary oxidizer is out of service. The preheating requirement does not apply to the secondary oxidizer if the primary oxidizer malfunctions, but does apply if the primary oxidizer will be shutdown for maintenance.

If an emissions test is conducted after issuance of this permit and a temperature different than 1400°F is established to meet the 98% destruction efficiency (whether higher or lower than 1400°F) required by Condition 7.3.5(a), then that new temperature is the new required compliance temperature. The same temperature requirement applies to the secondary oxidizer. See Condition 7.3.7 for testing requirements.

- c. Notwithstanding 35 IAC 218.107, seasonal shutdown of the thermal oxidizer from November 1 to April 1 of the following year is not allowed except for maintenance requirements. If the primary thermal oxidizer is shut down for maintenance the secondary thermal oxidizer shall be operated.
- d. The batch polyester plants may continue to operate during malfunction or breakdown or maintenance requirements of the principal control device, the fume incinerator (H-102), provided that the Hirt thermal oxidizer (HTO) is used as the control device during the malfunction and breakdown. The following requirements for use of the HTO are hereby established:
 - i. The HTO shall be subjected to a detailed inspection prior to its initial use and verified to be ready for operation on a regular schedule, but not less than semi-annual inspections of the HTO shall be made.
 - ii. When operated as the control device the minimum operating temperature of the HTO shall be 1400°F and be operated to achieve a 95% reduction in emissions.
 - iii. All vents that are ducted to H-102 shall be ducted to the HTO.
 - iv. The HTO shall begin operating within 30 minutes of malfunction of H-102 if H-102 appears disabled. The time period may be extended to 60 minutes if H-102 appears likely to restart. During these time periods no new batches may begin and appropriate steps taken to reduce emissions for batches in process.
- e. At all times, the Permittee shall to the extent practicable, maintain and operate all emission units, including the associated thermal oxidizer in a manner consistent with good air pollution control practice for minimizing emissions.

7.3.6 Emission and Operational Limitations

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

- a. The VOM emissions from the polyester plant, as determined at the exhaust from the thermal oxidizer, shall not exceed 3.4 pounds/hour.

- b. Emissions of volatile organic material (VOM) from the polyester plant (including the new equipment: affected reactors, affected tanks, truck loading stations and automated drum filling line) controlled by the thermal oxidizer shall not exceed the followings:

	VOM to Oxidizer		VOM Emissions	
	<u>Tons/Mo</u>	<u>Tons/Yr</u>	<u>Ton/Mo</u>	<u>Ton/Yr</u>
Polyester Plant	61.75	739	1.23	14.77

These limits are based on maximum production of the polyester plant operating at 8760 hr/year, with 98% destruction efficiency from the thermal oxidizer.

- c. This permit is issued based on minimal emissions of nitrogen oxides (NO_x), carbon monoxide (CO) and particulate matter (PM/PM₁₀) from the thermal oxidizer. For this purpose, emissions of each pollutant shall not exceed 1.0 lb/hr and 4.4 tons/year.
- d. This permit is issued based on negligible emissions of particulate matters (PM/PM₁₀) from the silos. For this purpose negligible emissions shall not exceed 0.11 lb/hr and 0.50 tons/year.

The above limitations were established in Construction Permit 03040054 pursuant to 35 IAC Part 203. These limits ensure that the construction/modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.3.7 Testing Requirements

As of the date of issuance of this CAAPP renewal, the testing of the thermal oxidizer required by Construction Permit 03040054 had not been completed (Condition 1.1.7). Completion of those tests is a requirement of this CAAPP permit. The second test is required only if another reactor, R-8, is actually built.

7.3.8 Monitoring Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7) (b) and (d) of the Act:

- a. The thermal oxidizers shall each be equipped with a continuous temperature indicator and chart recorder or disk storage for the thermal oxidizer combustion chamber temperature pursuant to 35 IAC 218.105(d) (2) (A).

- b. The affected polyester plant is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 4 pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information, as required by 40 CFR 64.9(b)(1).

It should be noted that a CAM plan is not required for units subject to a NESHAP issued after November 15, 1991. When the MON discussed in Condition 5.2.6 becomes effective, the CAM requirements will no longer be applicable. If the source becomes non-major for HAPs and the MON control requirements do not apply, this polyester plant will continue to be subject to CAM.

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 each affected tank or reactor to demonstrate compliance with Conditions 5.5.1 and conditions 7.3.5 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. For each particular type of resin and batch size produced, the Permittee shall maintain records of the following:
 - i. Weight of raw materials and products per batch.
 - ii. Theoretical amounts of water of reaction and glycol reacted based on stoichiometry of the particular type of resin.
 - iii. Estimated VOM vented to the thermal oxidizer, with supporting calculation (standardized calculations for fixed batch sizes may be used).
- b. The Permittee shall maintain daily records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in Conditions 7.3.5 and 7.3.6.

- i. Identification and size of each batch completed, with the amount of VOM vented to the thermal oxidizer as determined by previous batches per Condition 7.3.6.
- ii. Thermal oxidizer combustion chamber temperature, per 35 IAC 218.505(c).
- iii. Log of operating time (e.g. batch sheets) for capture system, thermal oxidizer, combustion chamber temperature monitor and associated reactors and thin tanks pursuant to 35 IAC 218.505.
- iv. A maintenance log for the capture system, thermal oxidizer, and combustion chamber temperature monitor detailing all routine and non-routine maintenance performed including dates and duration of outages and when use of the backup thermal oxidizer is required pursuant to 35 IAC 218.505.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of an affected tank or reactor 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. Reporting of Compliance Assurance Monitoring (CAM)

The Permittee shall submit monitoring reports to the Illinois EPA in accordance with Condition 8.6.1 and shall include, at a minimum, the information required under Condition 8.6.1 and the following information [40 CFR 64.6(c)(3), 64.9(a)(1), and (2)].

- i. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken [40 CFR 64.6(c)(3) And 64.9(a)(2)(i)]; and
 - ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c)(3) and 64.9(a)(2)(ii)].
- b. If the HTO is used as the control device in place of H-102 for over 8 hours, the Illinois EPA's Regional Office in Des Plaines shall be notified.

- c. The Annual Report submitted by the Permittee in fulfillment of 35 IAC Part 254 and IAC 201.302 shall include a statement of total hours that the HTO was used and if over 100 hours for the year, the dates and hours it was used.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the tanks and reactors without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Different raw materials may be used as long as emissions to the control device do not exceed the limit in Condition 7.3.6.

7.3.12 Compliance Procedures

Operation with the thermal oxidizer as required by Condition 7.3.5 assures compliance. Annual VOM emissions are uncontrolled emissions times $(1-DE/100)$, where DE equals the destruction efficiency of the thermal oxidizer from the most recent emission test. As of the date of issuance of this permit, the destruction efficiency is 98.6%. A computer software program may be used to calculate emissions.

The NO_x emissions from the thermal oxidizer shall be calculated using an emission factor of 0.1 lb per million Btu. Btus are determined from the heat value of the emissions being destructed as well as the supplemental natural gas.

7.4 Unit: Polyurethane Dispersion Manufacturing Process
 Control: Scrubber and Regenerative Thermal Oxidizer

7.4.1 Description

The polyurethane dispersion manufacturing process is a polymerization reaction. Subsequent thinning of the complete polymer is performed in a highly agitated dispersion vessel. All vessels are cleaned with N-methyl pyrrolidone (NMP) and water.

A wet scrubber (called a rotoclone WSC-510) is being used as the control device for the spensol process. The rotoclone removes isocyanates and NMP.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
T-407A	Dispersion Tank and Reflux Condenser Part of Water-Based Process	Rotoclone (WSC-510)
R-307	Reactor and Reflux Condenser Part of Water-Based Process	Rotoclone (WSC-510) or Backup Regenerative Thermal Oxidizer ^a (PUR-RTO)
T-417	Reactor and Reflux Condenser Part of Polyester Polyol Process	Regenerative Thermal Oxidizer (PUR-RTO) or as Backup Rotoclone ^a (WSC-510)
T-217	Weigh Tank 600 Gallon	None
	Truck Loading and Drum Loading	Regenerative Thermal Oxidizer (PUR-RTO)

^a This control device is owned by Forbo Adhesives, I.D. #063806AAL.

7.4.3 Applicability Provisions and Applicable Regulations

- a. An "affected tank or reactor" for the purpose of these unit specific conditions in a tank or reactor that is listed in Condition 7.4.2 and subject to 35 IAC 218 Subpart G and RR. Although subject to Subpart RR, this process does not have to meet the control requirements because the potential to emit VOM is under 25 tons/yr. However, the Permittee does use a regenerative thermal oxidizer as a control device to minimize emissions of one HAP material.

- b. Emissions of organic material from any emissions unit shall not exceed 8 lb/hr. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material. Emissions in excess of 8 lb/hr are allowable if emissions are controlled by 85%. [35 IAC 218.301 and 218.302]

7.4.4 Non-Applicability of Regulations of Concern

- a. 35 IAC 218 Subpart V applies to batch process with specific SIC codes. This process (SIC 2891) is not in one of those specific SIC codes.
- b. While as a process unit this equipment may be subject to 35 IAC 212.321, the materials involved are liquids and do not emit any PM.
- c. While the product manufactured in this equipment is a polymer, the process is not subject to 40 CFR 60 Subpart DDD (Polymer Manufacturing) because it is not one of the specific polymers listed in the applicability section [40 CFR 60.560].
- d. This permit is issued based on the affected polyurethane dispersion manufacturing process not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected polyurethane dispersion manufacturing does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels as demonstrated by the Permittee in a supplement to the renewal application.

7.4.5 Control Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act:

The regenerative thermal oxidizer shall be operated to capture and destruct VOM from the equipment listed in Condition 7.4.2 as vented to the regenerative thermal oxidizer. Minimum destruction efficiency shall be 90%.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the four affected vessels identified in Condition 7.4.2 are subject to the following:

- a. Emissions of VOM from the regenerative thermal oxidizer attributable to the Permittee shall not exceed 0.1 lb/hr and 0.24 ton/yr. This limit is based on uncontrolled emissions from T-417 not exceeding 2000 lb/mo and 12 tons/yr. These values shall not be exceeded.

- b. Emissions of VOM from the wet scrubber (WSC-510) which controls the water-based process shall not exceed 0.2 ton/mo and 2.0 ton/yr.

The above limitations were established in Construction Permits 94110091 and 96090041 pursuant to 35 IAC Part 203. These limits ensure that the construction/modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.4.7 Operating Requirements

None

7.4.8 Monitoring Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7) (b) and (d) of the Act:

The regenerative thermal oxidizer shall be equipped with a device for verification of the flame zone temperature in the regenerative thermal oxidizer.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records associated with their contribution of air emissions going to the RTO of the following items for each affected units to demonstrate compliance with Conditions 5.5.1 and 7.4.5 and 7.4.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Raw material throughputs (lb/mo).
- b. Proper operation of the regenerative thermal oxidizer including flame zone temperature to meet the destruction efficiency required by Condition 7.4.5.
- c. Calculation of emissions to and from the regenerative thermal oxidizer.
- d. Material balance calculations for cleanup solvents, direct measurement, or other approved engineering calculations.
- e. VOM emissions.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of an affected tank or reactor 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. Exceedance of annual emission limits.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the polyurethane process without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Different types of polyurethane dispersion materials from those described in the current application may be produced provided that emission limits in Condition 7.4.6 are met.

7.4.12 Compliance Procedures

Standard engineering calculation for uncontrolled emissions and 98% control by the regenerative thermal oxidizer. A computer software program may be used to perform the calculations.

7.5 Unit: Boilers and Oil Heater
Control: None

7.5.1 Description

List in Condition 7.5.2 is self-explanatory except oil heater means oil is the medium that is heated and not oil as a fuel.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Maximum Firing Rate	Date Constructed	Emission Control Equipment
Boiler No. 1	53 mmBtu/Hr, Gas Only	Pre-1972	None
Boiler No. 2	75 mmBtu/Hr, Gas With Oil Backup	1976	None
Oil Heater	28.7 mmBtu/Hr, Gas Only	1990	None

7.5.3 Applicability Provisions and Applicable Regulations

- a. An affected boiler for the purpose of these unit specific condition is a steam generating unit (or other heat transfer medium) that is fired with natural gas with a heat input capacity less than 100 mmBtu/hr but greater than 10 mmBtu/hr and listed in Condition 7.5.2. Oil is used as a backup fuel in one of the affected units.
- b. The oil heater is subject to 40 CFR 60 Subpart Dc because it was constructed after June 9, 1989. However, it does not fire fuel oil and is only subject to recordkeeping requirements.
- c. Each affected boiler or heater is subject to the opacity limits identified in Condition 5.2.2.b.
- d. The emissions of particulate matter (PM) from affected boiler No. 2 only into the atmosphere in any one hour period shall not exceed 0.15 kg/MW-hr (0.10 lb/mmBtu) of actual heat input from any fuel combustion emission unit using liquid fuel exclusively [35 IAC 212.206].
- e. The emission of carbon monoxide (CO) into the atmosphere from any affected boiler or heater with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

- f. The emission of sulfur dioxide (SO₂) into the atmosphere in any one hour period from affected boiler No. 2 burning liquid fuel exclusively shall not exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.161(b)].

7.5.4 Non-Applicability of Regulations of Concern

- a. Each affected boiler or heater is not subject to 35 IAC 217.141, because the actual heat input of the affected boiler is less than 73.2 MW (250 mmBtu/hr).
- b. Pursuant to 35 IAC 218.303, each affected boiler or heater, i.e., fuel combustion emission unit, is not subject to 35 IAC 218.301, Use of Organic Material.
- c. There are no applicable requirements for particulate matter or sulfur dioxide for affected boilers or the heater when firing natural gas.
- d. This permit is issued based on the affected boilers or heater not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boilers or heater do not use an add-on control device to achieve compliance with an emission limitation or standard.

7.5.5 Operational and Production Limits and Work Practices

- a.
 - i. Boiler No. 1 and the oil heaters shall only be fired by natural gas.
 - ii. Boiler No. 2 shall only be fired by natural gas or #6 fuel oil as the fuels.
- b. The Permittee shall not use residual fuel oil (Grades No. 4, 5 and 6 fuels) in the affected boiler No. 2 with sulfur content greater than that given by the formula:

$$\text{Maximum wt. Percent Sulfur} = (0.00005) \times (\text{Gross Heating Value of Oil, Btu/lb}).$$
- c. Long-term firing rate of the boilers shall not exceed the values listed in Condition 7.5.2.

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected oil heater is subject to the following:

Emission of NO_x and CO from the oil heater shall not exceed the following [T1]:

NO _x		CO	
(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
4.02	17.55	1.15	5.01

The above limitations were established in Construction Permit 90110005, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

There are no specific emission limitations for Boilers 1 and 2, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirement

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected boiler or heater to demonstrate compliance with Conditions 5.5.1 and Condition 7.5.5, pursuant to Section 39.5(7)(b) of the Act:

- a. The maximum sulfur content (in Wt. %) for each shipment of residual fuel oil used in Boiler No. 2.
- b. Annual aggregate NO_x, PM, SO₂, and VOM emissions from each affected boiler, based on fuel consumption and the applicable emission factors, with supporting calculations.
- c. Records demonstrating that no fuel oil was burned in the oil heater.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of an affected boiler or heater 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. Notification within 60 days of operation of an affected boiler that may not have been compliance with the opacity limitations in Condition 5.2.2(b), with a copy of such record for each incident.
- b. If there is an exceedance of sulfur content of distillate fuel oil in excess of the limit specified in condition 7.5.5, the Permittee shall submit a report within 30 days after receipt of a noncompliant shipment of distillate fuel oil.
- c. Emission of NO_x, PM, SO₂, or VOM from the affected boilers in excess of the limits specified in Condition 5.5.1 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

- a. Compliance with Condition 7.5.3.e is demonstrated under inherent operating conditions of an affected boiler or heater, so that no compliance procedures are set in this permit addressing this requirement.
- b. Compliance with Condition 7.5.3.f is demonstrated under inherent operating conditions of affected boiler fired by distillate oil with a sulfur content meeting the specification of Condition 7.5.5.b, so that no compliance procedures are set in this permit addressing this regulation.
- c. Compliance with the emission limits in Conditions 5.5.1 and 5.5.3 shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:
 - i. Emission from the boilers burning natural gas shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/10⁶ ft³)</u>
PM	7.5
SO ₂	0.6
VOM	2.8
NO _x	140.0

These are the emission factors for uncontrolled natural gas combustion in small industrial boilers (10 - <100 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Supplement F, October 1996. VOM emission factor based on Total Organic Carbon (TOC) factor corrected for 52% methane.

Boiler Emission (lb) = natural gas consumed multiplied by the appropriate emission factor.

- ii. Emissions from the affected boilers burning residual fuel oil shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factors (lb/10³ gallon)</u>
PM	12.4
NO _x	55.0
SO ₂	1,575
VOM	1.1

These are the emission factors for uncontrolled residual fuel oil combustion in commercial/institutional/residential combustors, Tables 1.3-1 and 1.3-2, AP-42, Volume I, Supplement F, October, 1996. "S" indicates that the weight % of sulfur in the oil should be multiplied by the value given.

Boiler Emissions (lb) = residual fuel oil consumed (gallons) multiplied by the appropriate emission factor.

- iii. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.2.12(i) and (ii) for all affected boilers.
- iv. A computer software program may be used to perform the calculations, but must be based on the above emission factors.

7.6 Unit: Wastewater Treatment System

7.6.1 Description

The wastewater treatment operations perform secondary treatment on process water that is generated by the reactor trains, boiler blow-down, production floor drains, and outside sewer drainage lines. Approximately 50,000 gallons per day of wastewater is treated and discharged by this operations system.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
WTS	Wastewater Treatment System	None

7.6.3 Applicability Provisions and Applicable Regulations

- a. The Wastewater Treatment System, is an "affected wastewater treatment system" 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 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 1,000 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.
- f. 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)]. This rule does not apply because the wastewater treatment system does not have separators to remove organic material and the vapor pressure of organic material that could be in the system are less than 2.5 psia.

7.6.5 Operational and Production Limits and Work Practices

None

7.6.6 Emission Limitations

None

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 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. The amount of wastewater treated, gal/day and gal/yr; and
- b. Monthly and annual aggregate VOM emissions from the affected wastewater treatment operations shall be maintained, based on the applicable emission factors and formulas, with supporting calculations.

7.6.10 Reporting Requirements

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

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].

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 7.2.9 and the emission factors and formulas listed below:

To determine compliance with Conditions 5.5.1 and estimating VOM emissions from the affected wastewater treatment unit the emission factors and formulas in Table 4.3-1 of the AP-42, Volume I, Supplement F, January, 1995 are acceptable.

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 as of the date the proposed permit for this source was issued. This shield is granted based on the Illinois EPA's review of the permit application for this source and its determination that all applicable requirements are specifically identified in this permit. If the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to the source, the Illinois EPA's written determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____ (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 that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

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

8.6.2 Test Notifications

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

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

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

8.6.3 Test Reports

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

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

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

- i. Illinois EPA - Air Compliance Section

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

- ii. Illinois EPA - Air Regional Field Office

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

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

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

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

8.7 Obligation to Comply with Title I Requirements

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 methods or practices for applicable requirements, any person may also use other credible evidence to establish compliance with, or violation of, any applicable requirement to the extent authorized by law.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

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

9.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

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

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
 - ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

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

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5) (1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - List of Tanks

Tank No.	Process	Type of Material	HAP	Year Built	Volume (gal)	Vapor Pressure (psia)	Submerged Loading Pipe
S-501	Emulsion	Raw Material	Yes	Pre-1972	32,000	1.8	Yes
S-514	Emulsion	Raw Material	Yes	1975	32,000	1.8	Yes
S-517	Emulsion	Currently Out of Service	Yes	1975	20,000	N/A	Yes
S-506	Emulsion	Product	No	Pre-1972	20,000	0.4	Yes
S-507	Emulsion	Product	No	Pre-1972	20,000	0.4	Yes
S-508	Emulsion	Product	No	Pre-1972	20,000	0.4	Yes
S-509	Emulsion	Product	No	Pre-1972	20,000	0.4	Yes
S-510	Emulsion	Product	No	April, 1973	20,000	0.4	Yes
S-511	Emulsion	Product	No	April, 1973	20,000	0.4	Yes
S-512	Emulsion	Product	No	April, 1973	20,000	0.4	Yes
S-513	Emulsion	Product	No	April, 1973	20,000	0.4	Yes
S-520	Emulsion	Product	No	Nov., 1977	20,000	0.4	Yes
S-521	Emulsion	Product	No	Nov., 1977	20,000	0.4	Yes
S-522	Emulsion	Product	No	Nov., 1977	20,000	0.4	Yes
S-523	Emulsion	Product	No	Nov., 1977	20,000	0.4	Yes
S-524	Emulsion	Product	No	March, 1982	20,000	0.4	Yes
S-525	Emulsion	Product	No	March, 1982	20,000	0.4	Yes
S-526	Emulsion	Product	No	March, 1982	20,000	0.4	Yes
S-527	Emulsion	Product	No	March, 1982	20,000	0.4	Yes
S-580	Polyester	Raw Material	Yes	Feb., 1975	40,000	0.6 ^a	Yes
S-585	Polyester	Raw Material	Yes	Dec., 1974	40,000	0.2	Yes
S-587	Polyester	Raw Material	Yes	Jan., 1975	40,000	0.2	Yes
S-589	Polyester	Raw Material	Yes	Pre-1972	46,500	0.2 ^a	Yes
M-4 (TK-4)	Polyester	Product	No	Oct., 1974	50,000	0.2	No ^b
M-5 (TK-5)	Polyester	Product	No	Oct., 1974	50,000	0.2	No ^b
M-6 (TK-6)	Polyester	Product	No	Oct., 1974	50,000	0.2	No ^b
M-7 (TK-7)	Polyester	Product	No	Oct., 1974	50,000	0.2	No ^b
M-11 (TK-11)	Polyester	Product	No	Nov., 1986	23,000	0.2	No ^b
M-12 (TK-12)	Polyester	Product	No	Nov., 1986	23,000	0.2	No ^b

Tank No.	Process	Type of Material	HAP	Year Built	Volume (gal)	Vapor Pressure (psia)	Submerged Loading Pipe
M-13 (TK-13)	Polyester	Product	No	Sept., 1986	27,000	0.2	No ^b
M-14 (TK-14)	Polyester	Product	No	Sept., 1986	27,000	0.2	No ^b
TK-17	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b
TK-18	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b
TK-19	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b
TK-20	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b
TK-21	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b
TK-22	Polyester	Product	No	Aug., 2004	27,000	0.2	No ^b

^a Vapor pressure at elevated temperature. Others are vapor pressure at 70°F although ambient may be above 70°F.

^b Vented to oxidizer

^c Vented to scrubber

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: _____

10.3 Attachment 3 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.
2. Minor Permit Modification
 - Do not violate any applicable requirement;
 - Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA;
- Are not required to be processed as a significant permit modification; and
- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

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

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

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

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



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

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	I.D. number:
	Permit number:
Date received:	

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. I.D. number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents

24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	<input type="checkbox"/> Yes <input type="checkbox"/> No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:	
BY:	
_____	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____/_____/_____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.5 Attachment 5 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

10.6 Attachment 6 - Compliance Assurance Monitoring (CAM) Plan

Table 1 - PSEU Designation:	Polyester Process
Pollutant:	VOM

Indicators:	#1: Oxidizer Combustion Chamber Temperature	#2:
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GENERAL CRITERIA

THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Temperature is continuously monitored with a thermocouple.	
THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	Combustion temp will be maintained above temp obtained during emissions test.	
QUALITY IMPROVEMENT PLAN (QIP) THRESHOLD LEVELS:	To be determined during emissions test (See Condition 7.3.8).	

PERFORMANCE CRITERIA

THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA:	Thermocouple is located in the combustion chamber.	
VERIFICATION PROCEDURES TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING:	Thermocouple is verified annually with NIST certified block heater and fluke.	
QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES THAT ENSURE THE VALIDITY OF THE DATA:	Calibration equipment is certified by transact as traceable to NIST standards.	
THE MONITORING FREQUENCY:	Continuously	
THE DATA COLLECTION PROCEDURES THAT WILL BE USED:	Data collection computerized acquisition system with chart recorder back-up.	
THE DATA AVERAGING PERIOD FOR DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	Daily, only if the temperature drops below the temperature specified in 7.3.5 (b)	