

FINAL DRAFT/PROPOSED CAAPP PERMIT  
National Starch and Chemical Co.  
I.D. No.: 137861AAC  
Application No.: 96030068  
September 3, 2002

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT  
and  
TITLE I PERMIT<sup>1</sup>

PERMITTEE

National Starch and Chemical Co.  
Attn: Gokul Bose  
South Washington Street  
Meredosia, Illinois 62665

Application No.: 96030068                      I.D. No.: 137861AAC  
Applicant's Designation:                      Date Received: March 6, 1996  
Operation of: Adhesives and Resins Manufacturing Plant  
Date Issued: !TO BE DETERMINED!                      Expiration Date<sup>2</sup>: !DATE!  
Source Location: South Washington Street, Meredosia, Morgan County  
Responsible Official: Frank Mastria, Plant Manager

This permit is hereby granted to the above-designated Permittee to OPERATE an adhesives and resins 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 2

<sup>1</sup> 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.

<sup>2</sup> Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

National Starch and Chemical Company  
South Washington Street  
Meredosia, Illinois 62665  
217/584-1323

I.D. No.: 137861AAC  
Standard Industrial Classification: 2821

1.2 Owner/Parent Company

National Starch and Chemical Company  
10 FINDERNE AVENUE  
BRIDGEWATER, NEW JERSEY 08807

1.3 Operator

National Starch and Chemical Company  
South Washington Street  
Meredosia, Illinois 62665

Gokul Bose, Environmental Supervisor  
217/584-1323 Ext. 2363

1.4 General Source Description

The National Starch and Chemical Company is located on South Washington Street in Meredosia. The source primarily manufactures adhesives, most of which are water-based, or solids-based and resins. In addition, the source has a storage tank farm, a wastewater treatment plant, and operates several boilers to produce steam for process use.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
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
kW	kilowatts
lb	pound
mmBtu	Million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SO <sub>2</sub>	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

### 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:

- Decanter 2
- East Cutter Table<sup>a</sup>
- East Packout<sup>a</sup>
- Extraction Column
- Cyclone Separator Nos. 1-1, 1-3, 2-1, 2-3
- Resin Crusher and Rubber Mill<sup>a</sup>
- Tank Nos. ST27 and ST33
- West Cutter Table<sup>a</sup>
- West Packout<sup>a</sup>
- Hydrochloric Acid Tank (IA05)

<sup>a</sup> These units are vented to baghouses but emissions prior to baghouse are less than 1.0 lb/hr.

##### 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:

- East Extruder Feed Tank (EEFT)
- East Mix Tank (EMIX)
- Ammonia Tank (IA03)
- Railcar Unloading (IA06)
- Tank Truck Unloading (IA07)
- Product Loading (IA08)
- Polymer Resin Storage Tanks (IA10)
- Air Dryer 1 and 2 (RD1 and RD2)
- Water Based Adhesive Storage and Bulk Tanks (WBAT)
- West Extruder Feed Tank (WEFT)
- West Extruder (WEXT)
- West Mix Tanks (WMIX)
- EVA Emulsion, Catalyst, Additive, Bulk and Blend Tanks
- Ethylene Pressure Tanks

##### 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)].

Extruders used for the extrusion of metals, minerals, plastics, rubber, or wood, excluding extruders used in the manufacture of polymers, provided that volatile organic materials or class I or II substances subject to the requirements of Title VI of the CAA are not used as foaming agents or release agents or were not used as foaming agents in the case of extruders processing scrap material [35 IAC 201.210(a)(5)].

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 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 with a capacity of greater than 250 gallons and the material loaded into the tank has a vapor pressure greater than 2.5 psia, the tank must be equipped with a permanent submerged loading pipe, submerged fill, and equivalent device approved by the Illinois EPA, or the tank is a pressure tank. [35 IA 215.122(b, c)]

### 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
<b>Water-Based Adhesives</b>			
WBA11-1, 2	Add Tank	1972	Scrubber, SCR1
WBA12-1, 2	Add Tank	1972	Scrubber, SCR1
WBA13-1, 2	Add Tank	1978	Scrubber, SCR1
WBA11	Reactor with Reflux Condenser CND11	1972	None
WBA12	Reactor with Reflux Condenser CND12	1972	None
WBA13	Reactor	1978	None
WBA11-3	Hold Tank	1972	None
WBA12-3	Hold Tank	1972	None
WBA13-3	Hold Tank	1978	None
<b>Solvent-Based Compounding</b>			
SAC31-38	Eight Mix Tanks with Reflux Condensers, CND31-38	1994	None
<b>Lacquers</b>			
LCR21-1, 2, 3	Add Tank	1972	None
LCR22-1, 2, 3	Add Tank	1973	None
LCR21	Reactor with Reflux Condenser CND21	1986	None
LCR22	Reactor with Reflux Condenser CND22	1973	None
LCRBL1-7	Blend Tanks	1972	None
LCRBK1-8	Bulk Tanks	1986	None
<b>Solid Adhesives</b>			
BRNR	Incinerator	2002	None
<b>EVA System (Ethylene-Vinyl Acetate)</b>			
EVA1	Add Tank	1997	None
ST31	Eva Cooker Storage Tank	2002	Rotoclone and Submerged Loading
RXE/STR	Reactor/Stripper	1997	Condenser, CNDEVA (During Charging), Flare, FLRE (During Venting)
<b>Polymer Resins</b>			
PRL42-1, 2	Add Tank	1973	None
PRL45-1, 2	Add Tank	1995	None

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Emission Unit	Description	Date Constructed	Emission Control Equipment
PRL42	Reactor with Reflux Condenser CND42	1973	None
PRL45	Reactor with Reflux Condenser CND45	1995	None
PRL43	Pearlizer with Reflux Condenser CND43	1995	None
PRL44	Pearlizer with Reflux Condenser CND44	1993	None
RD1	Dryer 1 with Cyclone Separators	Pre-1972	None
RD2	Dryer 2	Pre-1972	
Crotonic Acid Conveying System			
PRL42	Air Conveyor/Add Tank	2000	Baghouse, BGH6
Solvent Recovery System			
DCT1 and DCT2	Two Decanters	2000	None
DC02 and DC03	Two Distillation Columns with Recovery Condensers	2000	None
Storage Tanks			
ST01	Vinyl Acetate Storage Tank, 500,000 Gallons, Internal Floating Roof	1994	Submerged Loading
ST02	Ethyl Acetate Storage Tank 1, 30,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
ST03	Diethyl Maleate Storage Tank, 30,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST04	Chemical Storage Tank, 12,000 gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST05	Heptane Storage Tank 1, 20,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
ST06	Heptane Storage Tank 2, 12,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
ST09	Ethyl Acetate Storage Tank 2, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST10	Methyl Ethyle Ketone Storage Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading

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Emission Unit	Description	Date Constructed	Emission Control Equipment
ST11	Ethanol Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST12	Isopropanol Storage Tank, 12,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST13	Ethyl Acrylate Storage Tank 1, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST14	Methyl Methacrylate Storage Tank, 12,000 Gallons, Vertical Fixed Roof	1994	Submerged Loading
ST15	Toluene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	1994	Submerged Loading
ST16	Chemical Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST17	Acrylonitrile Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST18	Ethyl Acrylate Storage Tank 2, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST19	Xylene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST20	2-Ethylhexyl Acrylate Storage Tank 1, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST21	Butylacrylate Storage Tank, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST22	2-Ethylhexyl Acrylate Storage Tank 2, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading

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Emission Unit	Description	Date Constructed	Emission Control Equipment
ST30	Ethylene Glycol Storage Tank, 1,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST32	Hydrochloric Acid Storage Tank 6,500 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST34	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST37	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST38	Ethyl Acetate Storage Tank 10,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST41	n-Methylacrylamide Storage Tank, 15,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST42	VV10 Acetate Storage Tank, 20,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
BLR3	Natural Gas-Fired Boiler, 23.6 mmBtu/Hr	Pre-1970	None
BLR4 BLR6 BLR7	Three Natural Gas-Fired Boilers with No. 2 Fuel Oil Backup, 25.1 mmBtu/Hr Each	1978 1993 1997	None
BLR5	Natural Gas-Fired Boiler, 12.5 mmBtu/hr	1975	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 considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

- 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.

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

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

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

- 5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
  - i. Illinois EPA, Compliance Section; and
  - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
  - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.7 CAM Plan

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

pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

5.3.1 This permit is issued based on the source not being subject to 40 CFR Part 63, Subpart F, G or H (HON Rule), because the source is not on the list of affected chemicals in Table 1 of Subpart F.

5.3.2 This permit is issued based on the source not being subject to 35 IAC Part 218 or 219, because the source is not located within the Chicago or Metro-East Metropolitan Areas.

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)	298.68
Sulfur Dioxide (SO <sub>2</sub> )	5.01
Particulate Matter (PM)	29.96
Nitrogen Oxides (NO <sub>x</sub> )	61.68
HAP, not included in VOM or PM	----
TOTAL	395.33

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

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

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

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

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

5.6.2 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in

response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(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

The Permittee shall submit an annual report to the Illinois EPA, Compliance Section, on HAP emissions from the source. This report shall be submitted with the Annual Emissions Report (Condition 9.7).

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating VARIABLE 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 VOM emissions from storage tanks, the current version of TANKS is acceptable.
- b. For the purpose of estimating fugitive VOM emissions from leaking components at the source, the emission factors found in "Protocol for Equipment Leak Emission Estimates" published by USEPA on the

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Technology Transfer Network bulletin board in  
November 1995 are acceptable.

- c. For the purpose of estimating HAP emissions from equipment at the source, the vapor weight percent (based on a 1992 USEPA survey) of each HAP for each organic liquid times the VOM emissions contributed by that organic liquid is acceptable.

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6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit: Chemical Process Operations  
Control: Mostly None But See Condition 7.1.2

7.1.1 Description

There are a number of chemical processing operations. Many involve batch reactors but some processes are more a mixing (compounding) than a reaction. Many of the reactors have a tank prior to the reactor in which some or all of the reactants are mixed at ambient temperature prior to being fed to the reactor, which typically operate at an elevated temperature and possible elevated pressure. These are called add or additive tanks and are not classified as storage tanks. There is often a hold tank after the reactor where the material is cooled, blended or simply held for further processing.

Although condensers are normally considered a type of control equipment, in some cases they are called reflux condensers and not classified as control equipment since the condensed material is returned to the reactor. The condensers on the distillation columns are also not considered control equipment.

Solid-based materials use baghouses as control devices.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Water-Based Adhesives		
WBA11-1, 2	Add Tank	Scrubber, SCR1
WBA12-1, 2	Add Tank	Scrubber, SCR1
WBA13-1, 2	Add Tank	Scrubber, SCR1
WBA11	Reactor with Reflux Condenser CND11	None
WBA12	Reactor with Reflux Condenser CND12	None
WBA13	Reactor	None
WBA11-3	Hold Tank	None
WBA12-3	Hold Tank	None
WBA13-3	Hold Tank	None
Solvent-Based Compounding		
SAC31-38	Eight Mix Tanks with Reflux Condensers, CND31-38	None

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Emission Unit	Description	Emission Control Equipment
Lacquers		
LCR21-1, 2, 3	Add Tank	None
LCR22-1, 2, 3	Add Tank	None
LCR21	Reactor with Reflux Condenser CND21	None
LCR22	Reactor with Reflux Condenser CND22	None
LCRBL1-7	Blend Tanks	None
LCRBK1-8	Bulk Tanks	None
Solid Adhesives		
BRNR	Incinerator <sup>a</sup>	None
EVA System (Ethylene-Vinyl Acetate)		
EVA1	Add Tank	None
ST31	Eva Cooker Storage Tank <sup>b</sup>	Rotoclone and Submerged Loading
RXE/STR	Reactor/Stripper	Condenser, CNDEVA (During Charging), Flare, FLRE (During Venting)
Polymer Resins		
PRL42-1, 2	Add Tank	None
PRL45-1, 2	Add Tank	None
PRL42	Reactor with Reflux Condenser CND42	None
PRL45	Reactor with Reflux Condenser CND45	None
PRL43	Pearlizer with Reflux Condenser CND43	None
PRL44	Pearlizer with Reflux Condenser CND44	None
RD1	Dryer 1 with Cyclone Separators	None
RD2	Dryer 2	
Crotonic Acid Conveying System		
PRL42	Air Conveyor/Add Tank <sup>b</sup>	Baghouse, BGH6
Solvent Recovery System		
DCT1 and DCT2	Two Decanters	None
DC02 and DC03	Two Distillation Columns with Recovery Condensers	None

<sup>a</sup> Although referred to as an incinerator, for purposes of compliance the unit is classified as a process emission unit.

- b. Although referred to as a storage tank, a powder material is added to the tank and it is also heated, so for purposes of compliance it is not a storage tank. No reaction occurs between the powder and liquid.
- c. The entrained PM is created in the conveyor but it is a closed system. The baghouse is on the add tank, which is the only piece of vented equipment.

#### 7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected chemical process operations" for the purpose of these unit-specific conditions, is an operation or process used to manufacture an organic chemical and identified in Condition 7.1.2.
- b. Each affected process operation is subject to the emission limits identified in Condition 5.2.2.
- c. Each process or operation identified in Condition 7.1.2 is subject to 35 IAC 215.301 or 215.302. § 215.301 requires that VOM emissions not exceed 8 lb/hr if the VOM is a photochemically reactive material pursuant to the definition in 35 IAC 211.4690 and there is no odor nuisance. If emissions exceed 8 lb/hr, § 215.301 provides the option to comply by use such of control equipment such as oxidation or vapor recovery (i.e., condensers) to reduce emissions by 85%. The 8 lb/hr rate applies to individual pieces of equipment, and not in aggregate.
- d. Although all processes are subject to 35 IAC 212.321, the rule regulates emissions of PM so only PM emitting processes are affected. The formula for calculating allowable for this rule is in Attachment 1.

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

- a. This permit is issued based on the affected chemical processes not being subject to the New Source Performance Standards (NSPS) for SOCOMI reactors or distillation processes, 40 CFR Part 60, Subparts NNN or RRR, because the affected processes do not produce as a product or intermediate any of the chemicals listed in 40 CFR 60.667 or 60.707.

- b. This permit is issued based on the affected chemical processes not being subject to 35 IAC 215 Subpart Q, because the affected source does not produce chemicals listed in Appendix D of Part 215.

#### 7.1.5 Control Requirements and Work Practices

- a. The control equipment listed in Condition 7.1.2, if necessary to achieve compliance with an emission standard in Condition 7.1.3, shall be operated in accordance with the manufacturer's recommended operating practices so as to achieve compliance with the applicable standard.
- b. Incinerator Work Practices [T1]
  - i. The incinerator system (BRNR) shall not be used for disposal of waste except as it is incidental to cleaning or removing accumulated adhesive material from filters and other components in the solid adhesive department as part of the routine operation and maintenance practices.
  - ii. At all times the Permittee shall maintain and operate the incinerator system in a manner consistent with good air pollution control practices such as following the manufacturer's recommended operating procedures and preheating of the combustion chamber.
- c. For SAC 31-38, the inlet temperature to each of the reflux condensers shall not exceed 40°F and vapor pressure of the solvent or solvent mix shall not exceed 0.9 psia at 70°F [T1, 94010063].
- d. VOM flow rate to the flare (FLRE) shall not exceed 16,000 lb/hr [T1, 01090024].

#### 7.1.6 Emission Limitations

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

Emissions from the affected process units shall not exceed the following limits:

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<u>Equipment</u>	<u>VOM Emissions</u>		<u>State Permit No.</u>
	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>	
PRL45-1, 2	150	0.64	95100077
PRL45	175	0.84	95100077
DCT1 & 2 & DC02 & 03 Combined		12	00120053
FLRE	1.0		
	1.5	13.75	01090024

<u>Equipment</u>	<u>PM Emissions</u>		<u>State Permit No.</u>
	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>	
RD 1-2	50	0.22	00110053
PRL42	75	0.30	00110053

Emissions of VOM from the solvent adhesive compounding system (SAC-SYS) an number of batches shall not exceed the following as established in Permit No. 94010063 [T1]:

<u>SAC-SYS No.</u>	<u>Batch Size (Gallons)</u>	<u>Batch Time (Hr)</u>	<u>Batches Per Year</u>	<u>VOM Emissions (Lb/Batch)</u>	<u>(Lb/Yr)</u>
31	500	12	250	10	2,500
32	1,100	12	250	10	2,500
33	250	12	250	10	2,500
34	2,000	12	250	10	2,500
35	6,000	12	250	11	2,750
36	1,200	12	250	10	2,500
37	750	12	250	10	2,500
38	110	12	250	10	2,500
				Total:	20,250 = 10.2 T/Y

These limits are based on the information in the permit application.

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

The above limitations contain revisions to previously issued Permits. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has

addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, hourly rates have been replaced by monthly rates for some units with no increase in annual allowable. [T1R]

#### 7.1.7 Testing Requirements

Upon request by the Illinois EPA, any of the emission units listed in Condition 7.1.2 must be tested to demonstrate compliance with the applicable requirements cited in the request for an emissions test.

#### 7.1.8 Monitoring Requirements

- a. The temperature of the water used as coolant in the condensers shall be monitored once per week for cooling tower water and once per day for glycol coolant. If the same source of water is used in more than one condenser, the temperature need only be monitored at one point for those condensers.

Glycol cooled condensers must have a separate record.

- b. All baghouses shall have semi-annual visual inspections to verify that they are in good condition.

#### 7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected processes/controls to demonstrate compliance with Conditions 5.5.1, 7.1.3, 7.1.6 and 7.1.8, pursuant to Section 39.5(7)(b) of the Act:

- a. For processes in which the VOM used is photochemically reactive, a record showing that emissions from each piece of equipment are under 8

lb/hr or controlled by 85% by a condenser that is a control device. The emission rate may be calculated over the batch cycle time.

- b. Emission rates to verify compliance with Condition 7.1.6.
- c. Temperature monitoring data for condensers.
- d. Records of inspections of baghouses.
- e. VOM and HAP emissions (ton/yr).

#### 7.1.10 Reporting Requirements

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

- a. Emissions exceeding 8 lb/hr from any piece of equipment or not controlled by 85% if the VOM is photochemically reactive.
- b. Emissions exceeding the limits of Condition 7.1.6.

#### 7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected 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:

The equipment in Condition 7.1.2 was listed by a generic type of process and therefore any chemicals that meet that definition may be used in that equipment.

#### 7.1.12 Compliance Procedures

- a. Compliance with Condition 7.1.3 is determined by complying with the monitoring and inspection requirements if Condition 7.1.8, the recordkeeping

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requirements of Condition 7.1.9 and the reporting  
requirements of Condition 7.1.10.

- b. Emissions shall be calculated using USEPA methodology  
for batch operations.

7.2 Unit: Storage Tanks  
Control: Submerged Loading

7.2.1 Description

Most of the storage tanks qualified as insignificant emission units (see Section 3.0) but the tanks that contain HAPs could not qualify and are included here. Some materials that are not HAPs had an emission rate that could not qualify as insignificant.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ST01	Vinyl Acetate Storage Tank, 500,000 Gallons, Internal Floating Roof	Submerged Loading
ST02	Ethyl Acetate Storage Tank 1, 30,000 Gallons, Horizontal Fixed Roof	Submerged Loading
ST04	Chemical Storage Tank, 12,000 gallons, Vertical Fixed Roof	Submerged Loading
ST05	Heptane Storage Tank 1, 20,000 Gallons, Horizontal Fixed Roof	Submerged Loading
ST06	Heptane Storage Tank 2, 12,000 Gallons, Horizontal Fixed Roof	Submerged Loading
ST09	Ethyl Acetate Storage Tank 2, 10,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST10	Methyl Ethyle Ketone Storage Tank, 10,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST11	Ethanol Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST12	Isopropanol Storage Tank, 12,000 Gallons Vertical Fixed Roof	Submerged Loading
ST13	Ethyl Acrylate Storage Tank 1, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading

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Emission Unit	Description	Emission Control Equipment
ST14	Methyl Methacrylate Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST15	Toluene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST16	Chemical Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST17	Acrylonitrile Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST18	Ethyl Acrylate Storage Tank 2, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST19	Xylene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST20	2-Ethylhexyl Acrylate Storage Tank 1, 30,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST21	Butylacrylate Storage Tank, 30,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST22	2-Ethylhexyl Acrylate Storage Tank 2, 30,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST30	Ethylene Glycol Storage Tank, 6,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST32	Hydrochloric Acid Storage Tank, 6,500 Gallons, Vertical Fixed Roof	Submerged Loading
ST34	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST37	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST38	Ethyl Acetate Storage Tank, 10,000 Gallons, Vertical Fixed Roof	Submerged Loading
ST41	n-Methylacrylamide Storage Tank, 15,000 Gallons, Vertical Fixed Roof	Submerged Loading

Emission Unit	Description	Emission Control Equipment
ST42	VV-10 Storage Tank, 20,000 Gallons, Horizontal Fixed Roof	Submerged Loading

7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected storage tanks" for the purpose of these unit-specific conditions, are tanks used to store organic chemicals for the chemical processing operations described in Section 7.1 of this permit and the vapor pressure of the materials is less than 2.5 psia.
- b. Each affected storage tank is subject to the emission limits identified in Condition 5.2.2.
- c. Each tank is subject to 35 IAC 215.122(b) which requires the use of a permanent submerged loading pipe if the vapor pressure of the material stored is greater than 2.5 psia or there is an odor nuisance. None of the materials currently stored have a vapor pressure greater than 2.5 psia, but each of the tanks has submerged loading.
- d. Storage Tank ST01 is subject to 40 CFR 60 Subpart Kb because it has a capacity in excess of 40,000 gallons, holds a material with a vapor pressure greater than 0.75 psia and was constructed after July 23, 1984.

7.2.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on none of the affected storage tanks being subject to the New Source Performance Standards (NSPS) for volatile organic liquids, 40 CFR Part 60, Subpart Kb, because all of the storage tanks except ST01 do not meet the applicable size requirements to be an affected tank and do not contain a material with a high enough vapor pressure. Tank ST01 meets the size requirements to be an affected tank, but does not meet the vapor pressure requirements.
- b. This permit is issued based on the affected tanks not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources,

because the affected tanks do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels, and one tank uses 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.

7.2.5 Control Requirements

Each affected tank shall comply with the requirements of 40 CFR 60.112b(a)(1)(i), which requires the use of a fixed roof in combination with an internal floating roof that is equipped with one of the following closure devices:

- a. A foam-filled or liquid-filled liquid-mounted seal; or
- b. Two continuous seals; or
- c. A mechanical shoe seal.

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected storage tank ST01 is subject to the following:

Emissions from the affected Tank ST01 shall not exceed the following limits:

VOM Emissions	
<u>(Ton/Month)</u>	<u>(Ton/Year)</u>
0.5	3.0

These limits are based on the maximum throughput and properties of the material stored.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1R].

The above limitations contain revisions to previously issued Permit 94100114. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent

with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the limits in the original permit were lower than the calculated emissions submitted with the current application [T1R].

#### 7.2.7 Operating Requirements

Storage Tank ST01 shall be operated in compliance with the operating requirements of 40 CFR 60.112b(a)(1) and 60.113b(a), as follows:

- a. The internal floating roof shall float on the liquid surface at all times, except during those intervals when the storage tank is being completely emptied and subsequently refilled and the roof rests on its leg supports. When the roof is resting on its leg supports, the process of emptying or refilling shall be continuous and shall be accomplished as rapidly as possible [40 CFR 60.112b(a)(1)(i)]
- b. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents shall provide a projection below the liquid surface. [40 CFR 60.112b(a)(1)(iii)]
- c. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid which is maintained in a closed position at all times (i.e., no visible gaps) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic

gauge float well shall be bolted except when they are in use. [40 CFR 60.112b(a)(1)(iv)]

- d. Automatic bleeder vents shall be equipped with a gasket and be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR 60.112b(a)(1)(v)]
- e. Rim space vents shall be equipped with a gasket and be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [40 CFR 60.112b(a)(1)(vi)]
- f. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [40 CFR 60.112b(a)(1)(vii)]
- g. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [40 CFR 60.112b(a)(1)(viii)]
- h. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]
- i. A tank that is in-service shall be repaired or emptied upon identification in an inspection that the floating roof is not resting on the surface of the VOL, there is liquid accumulated on the roof, the seal is detached, or there are holes or tears in the seal fabric. These actions shall be completed within 45 days of the inspection unless an extension is granted. [40 CFR 60.113b(a)(2) and (a)(3)(ii)]
- j. A tank that is empty shall be repaired prior to refilling the tank upon identification in an inspection that the floating roof has defects, the primary seal has holes, tears or other openings in the seal or seal fabric, or the secondary seal has holes, tears or other openings in the seal or seal fabric, or the gaskets no longer close off. [40 CFR 60.113b(a)(3)(ii) and (a)(4)]

#### 7.2.8 Inspection Requirements

The Permittee shall fulfill the applicable testing and procedures requirements of 40 CFR 60.113b(a) for each affected tank equipped with an internal floating roof as follows:

- a. Visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once ever 12 months (Annual Inspection) to identify any deficiency or shortcoming in the roof's features, (i.e., the internal floating roof is not resting on the surface of the VOL inside the storage tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric) that the Permittee must repair or otherwise remove the storage tank from service. [40 CFR 60.113b(a)(2) and (a)(3)(ii)]
- b.
  - i. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes (if any), and sleeve seals (if any) each time the storage vessel is emptied and degassed (Out-of-Service Inspection) to identify any deficiency or shortcoming in the roof's features, (i.e., internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area) that the Permittee shall repair the features prior to refilling the storage tank with VOL. These inspections shall be performed at least every 5 years for tanks equipped with two continuous seals or otherwise at least every 10 years. [40 CFR 60.113b(a)(3)(ii) and (a)(4)]
  - ii. Prior notification for the above inspection shall be given to the Illinois EPA as specified in Condition 7.4.10(b).

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 storage tank to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

- a. A record of the annual throughput and vapor pressure of the material stored in each tank listed in Condition 7.2.2.
- b. VOM and HAP emissions from each tank (lb/year).
- c. Readily accessible records showing the dimensions of the storage tank and an analysis showing the capacity of the storage vessel.
- d. The Permittee shall fulfill the applicable recordkeeping requirements of 40 CFR 60.115b for affected Tank ST01 pursuant to 40 CFR 60.115b(a), as follows:

Keep a record of each Annual and Out-of-Service Inspection performed as required by Condition 7.4.8(a) and (b). [40 CFR 60.115b(a)(2)]

  - i. The date the inspection was performed;
  - ii. Who performed the inspection;
  - iii. The method of inspection;
  - iv. The observed condition of each feature of the internal floating roof (seals, roof decks and fittings), with the raw data recorded during the inspection; and
  - v. Summary of compliance.
- e. The Permittee shall maintain records of the following for affected Tank ST01 to demonstrate compliance with the Out-of-Service Inspection requirements of Condition 7.4.8(b)(i):

Records that are sufficient to identify whenever the tank is empty for any reason or whenever repairs are made as a result of regular inspection or incident of roof damage or defect.

- f. The Permittee shall keep the operating records required by 40 CFR 60.116b for affected tank ST01, as follows:

Records of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR 60.116b(c)]

- g. The Permittee shall maintain records of the VOM emissions from Storage Tank ST01 in accordance with the procedures outlined in Condition 5.6, so as to demonstrate compliance with the emission limitations of Condition 7.2.6.

#### 7.2.10 Reporting Requirements

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

- a. Emissions of VOM exceeding the allowable of Condition 7.2.6.
- b. The Permittee shall submit written notifications and reports to the Illinois EPA, Compliance Unit as required by the NSPS, for each affected tank, as follows:
- i. A report identifying any deficiencies or shortcomings identified in the Annual Inspection required by Condition 7.2.8(a) within 30 days of inspection. This report shall include the information specified in 40 CFR 60.115b(a)(3).
- ii. A. Notification at least 30 days prior to refilling an affected tank for which an Out-of-Service inspection is required by Condition 7.4.8(b)(i) to afford the Illinois EPA with the opportunity to have an observer present. [40 CFR 60.113b(a)(5)]
- B. If the inspection is not planned and the owner or operator of the tank could not

have known about refilling the tank 30 days in advance, a shorter notification may be accepted as provided for in 40 CFR 60.113b(a)(5).

- iii. A report identifying any deficiencies or shortcomings identified in the Out-of-Service Inspection within 30 days of the inspection required by Condition 7.2.8(b)(i). This report shall include the information specified in 40 CFR 60.115b(a)(4).
- c. The Permittee shall promptly notify the Illinois EPA, Compliance Unit of noncompliance with the control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:
- i. Any storage of VOL in an affected tank that is not in compliance with the control requirements due to absence of the features required by Condition 7.2.5, e.g., no "secondary seal," within five days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.
  - ii. Any storage of VOL in an affected tank that is out of compliance with the control requirements (Condition 7.2.5) due to damage, deterioration, or other condition of the tank, within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

#### 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected tank 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

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construction or modification of the source, as defined in  
35 IAC 201.102:

Storage of alternate materials is allowed provided  
that the vapor pressure of the new material does not  
exceed 2.5 psia or result in an exceedance of the  
annual limits in Condition 7.2.6.

7.2.12 Compliance Procedures

Emissions of VOM from each tank shall be calculated using  
the USEPA's TANKS program or equivalent.

7.3 Unit: Fuel Combustion Units  
Control: None

7.3.1 Description

The Permittee operates four boilers to provide steam for heat used in the chemical processes. The boilers are primarily gas-fired but three of them have distillate fuel oil as a backup fuel.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
BLR3	Natural Gas-Fired Boiler, 23.6 mmBtu/hr	None
BLR4 BLR6 BLR7	Three Natural Gas-Fired Boilers with No. 2 Fuel Oil Backup, 25.1 mmBtu/hr each	None
BLR5	Natural Gas-Fired Boiler 12.5 mmBtu/hr	None

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected boilers" for the purpose of these unit-specific conditions, are boilers used to provide process steam and identified in Condition 7.3.2.
- b. Each affected boiler is subject to the emission limits identified in Condition 5.2.2.
- c. Each boiler is subject to 35 IAC 216.121. This rule states that the emission of carbon monoxide (CO) into the atmosphere from any affected boiler with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air.
- d. Boilers 4, 6 and 7 are subject to 35 IAC 214.122(b)(2). This rule state that the emission of sulfur dioxide (SO<sub>2</sub>) into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 0.3 lb of sulfur dioxide per million Btu of actual heat input when distillate fuel oil is burned.
- e. Boilers 4, 6 and 7 are subject to 35 IAC 212.206. This rule states that the emissions of particulate

matter (PM) into the atmosphere in any one hour period shall not exceed 0.10 lb/mmBtu of actual heat input from any fuel combustion emission unit using liquid fuel exclusively.

- f. Boiler 6 and 7 are subject to an NSPS for small industrial steam generating units, 40 CFR 60 Subpart Dc. The applicable NSPS are as follows:
  - i. Pursuant to the NSPS, the emission of SO<sub>2</sub> into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 0.5 lb/mmBtu of actual heat input when distillate fuel oil is burned; as an alternative the Permittee shall not combust oil in affected boilers that contains greater than 0.5 weight percent sulfur. All limits shall be based on a 30-day rolling average. [40 CFR 60.42c(d) and (g)]
  - ii. Pursuant to the NSPS, the emission of gases into the atmosphere from any affected boiler, except during periods of startup, malfunction and shutdown, shall not exhibit an opacity greater than 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c) and (d)]

#### 7.3.4 Non-Applicability of Regulations of Concern

- a. Each affected boiler is not subject to 35 IAC 217.141, because the actual heat input of the affected boiler is less than 73.2 MW (250 mmBtu/hr).
- b. Pursuant to 35 IAC 215.303, each affected boiler, i.e., fuel combustion emission unit, is not subject to 35 IAC 218.301, Use of Organic Material.
- c. There are no applicable requirements for particulate matter or sulfur dioxide for affected boilers firing natural gas.
- d. This permit is issued based on the affected boilers not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected boilers use a passive control measure, such as a low-polluting fuel, that

is not considered a control device because it acts to prevent the pollutants from forming.

7.3.5 Operational and Production Limits and Work Practices

- a. Boiler 3 shall only be fired with natural gas.
- b. The Permittee shall not use distillate fuel oil (Grades No. 1 and 2 fuels) in the affected boilers with a sulfur content greater than the larger of the following two values:
  - i. 0.28 weight percent, or
  - ii. The Wt percent given by the formula:
$$\text{Maximum Wt percent sulfur} = (0.000015) \times (\text{Gross heating value of oil, Btu/lb})$$
- c. Organic liquid by-products or waste materials shall not be used as fuel in any of the affected units.

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected Boilers 6 and 7 are subject to the following:

Emissions from affected Boiler Nos. 6 and 7 shall not exceed the following limits:

<u>Pollutant</u>	<u>Emissions</u>	
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
NO <sub>x</sub>	1.5	15.61
SO <sub>2</sub>	1.0	5.54

The limit for NO<sub>x</sub> emissions is based on the continuous operation at maximum rate using gas or fuel oil. The limit for SO<sub>2</sub> does not allow continuous use of fuel oil.

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

The above limitations contain revisions to previously issued Permit 72100712. The source has requested that the Illinois EPA establish conditions in this

permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the hourly rate has been replaced by a monthly rate for recordkeeping purposes [T1R].

7.3.7 Testing Requirements

- a. In place of testing of the fuel oil for sulfur content to determine compliance with Condition 7.3.5(d), the Permittee may receive a certification from the fuel supplier as allowed by 40 CFR 60.42c(h). This certification is also acceptable for demonstrating compliance with Condition 7.3.5(b).
- b. The Illinois EPA shall be allowed to sample all fuels stored at this source.

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

- a. In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Conditions 5.5.1, 7.3.5, 7.3.6 and 7.3.7, pursuant to Section 39.5(7)(b) of the Act:
  - i. Fuel oil weight percent sulfur and supplier certifications (each shipment);
  - ii. Emissions of NO<sub>x</sub>, SO<sub>2</sub>, and VOM (tons/mo and tons/yr). Data for Boiler Nos. 6 and 7 must

- be unit specific but the other boilers may be aggregated;
- iii. Use of distillate oil used for the affected boilers with Boiler Nos. 6 and 7 separated (gal/mo); and
  - iv. Total natural gas usage for the affected boilers with Boiler Nos. 6 and 7 separated.
- b. Pursuant to the NSPS, 40 CFR 60.48c(g) and (e), the Permittee shall maintain records of the following items for the affected Boiler Nos. 6 and 7:
- i. Usage of natural gas for the boilers (ft<sup>3</sup>/day)<sup>a</sup>;
  - ii. Usage of oil for the boilers (gal/day)<sup>a</sup>; and
- <sup>a</sup> Although the rule requires daily records, the actual values may be calculated from plant usage data for the month and the operating hours for each fuel and each boiler for the month.
- iii. The following information for the quarterly reports required by the NSPS:
    - A. Calendar dates in the reporting period;
    - B. Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period in the quarter; reasons for any non-compliance with the emission standard; and a description of the actions taken; and
    - C. Documentation of fuel oil sulfur content consisting of either:
      - 1. Copies of fuel oil supplier certifications, including: the name of the oil supplier; and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil found at 40 CFR 60.41c; or

2. Records of fuel oil analysis conducted per the requirements of 40 CFR 60.46c(d)(2).

#### 7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected boiler with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
  - i. Use of fuel oil that did not meet the requirements of Condition 7.3.5(b);
  - ii. Emissions exceeding the limits in Condition 7.3.6; and
  - iii. Exceedance of the opacity limits of Condition 7.3.3(f)(ii).
- b. The Permittee shall submit quarterly reports to the Illinois EPA. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. The reports shall contain the information in Condition 7.3.9(b)(i) - (iii). If fuel supplier certification is used to demonstrate compliance, in addition to the fuel supplier certification required in Condition 7.3.9(b)(iii)(C)(1), the quarterly reports shall include a certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel consumed during the quarter.

#### 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.3.12 Compliance Procedures

- a. Compliance with Condition 7.3.3(b) is demonstrated under inherent operating conditions of an affected boiler, so that no compliance procedures are set in this permit addressing this requirement.

- b. Compliance with Condition 7.3.3(d) is demonstrated under inherent operating conditions of affected boilers fired by distillate oil with a sulfur content meeting the specification of Condition 7.3.5(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 7.3.9 and the emission factors and formulas listed below:
  - i. Emissions from the boilers burning natural gas shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/10<sup>6</sup> ft<sup>3</sup>)</u>
PM	1.9
SO <sub>2</sub>	0.6
VOM	5.5
NO <sub>x</sub>	100

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

Boiler Emissions (ton) = natural gas consumed multiplied by the appropriate emission factor/2000.

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

<u>Pollutant</u>	<u>Emission Factor (lb/1000 gallons)</u>
PM	2
NO <sub>x</sub>	20
SO <sub>2</sub>	142%S
VOM	0.34

These are the emission factors for uncontrolled distillate fuel oil combustion in commercial/institutional/residential combustors, Tables 1.3-1, 1.3-3 and 1.3-7, AP-42, Volume I, Fifth Edition, September

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1998. "%S" indicates that the weight % of sulfur in the oil should be multiplied by the value given.

Boiler Emissions (ton) = distillate fuel oil consumed (gallons) multiplied by the appropriate emission factor/2000.

- iii. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.3.12(i) and (ii) for all affected boilers.

7.4 Unit: Waste Treatment  
Control: Baghouse

7.4.1 Description

The Permittee operates a wastewater treatment plant in which primary, secondary and tertiary treatment occur. The lime silo has a baghouse.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
WWTP	Wastewater Treatment Plant	None
SILLO	Lime Silo	BGH4

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected wastewater treatment plant" for the purpose of these unit-specific conditions, is a unit that treats water prior to discharge into the river.
- b. An affected lime silo is a unit which receives lime in powder form from a truck. Emissions of PM only occur when the silo is being filled.
- c. The affected wastewater treatment plant and lime silo is subject to the emission limits identified in Condition 5.2.2.
- d. The affected lime silo is subject to 35 IAC 212.321. The formula for calculating allowable is in Attachment 1.

7.4.4 Non-Applicability of Regulations of Concern

N/A

7.4.5 Control Requirements

The baghouse shall be operated in accordance with the manufacturer's recommended operating and maintenance practices.

7.4.6 Emission Limitations

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

N/A

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

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

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

VOM and PM emissions (lb/yr).

7.4.10 Reporting Requirements

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

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Emissions of VOM shall be calculated using the WATER8 computer program or the updated version of a similar program.
- b. Emissions of PM shall be calculated using the manufacturer's estimated loading from the baghouse of  $0.1 \text{ gr/ft}^3$  times the air flow rate through the baghouse.

## 8.0 GENERAL PERMIT CONDITIONS

### 8.1 Permit Shield

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

This permit shield does not extend to applicable requirements which are promulgated after \_\_\_\_\_ **{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

### 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

### 8.3 Emissions Trading Programs

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

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

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

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

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

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

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

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

8.6.2 Test Notifications

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

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these

conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

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

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

#### 8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
- i. Illinois EPA - Air Compliance Section  
  
Illinois Environmental Protection Agency  
Bureau of Air  
Compliance Section (MC 40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276
  - ii. Illinois EPA - Air Regional Field Office  
  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
5415 North University  
Peoria, Illinois 61614
  - 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

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I provisions until the Illinois EPA deletes or revises them in  
accordance with Title I procedures.

## 9.0 STANDARD PERMIT CONDITIONS

### 9.1 Effect of Permit

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

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

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

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

### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or
  - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

#### 9.4 Obligation to Comply with Other Requirements

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

#### 9.5 Liability

##### 9.5.1 Title

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

##### 9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or

resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

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

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for

continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

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

#### 9.7 Annual Emissions Report

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

#### 9.8 Requirements for Compliance Certification

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

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

#### 9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

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

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

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

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1 - Allowable Limits for PM Units

Each PM emitting process is subject to 35 IAC 212.321. This rule states that for emission units constructed after April 14, 1972, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in the following equation:

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

Where:

P = Process weight rate

E = Allowable emission rate

For process weight rate up to 450 ton/hour:

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

For process weight rates below 100 lb/hr (e.g., the incinerator), the allowable is 0.55 lb/hr.

FINAL DRAFT/PROPOSED CAAPP PERMIT  
National Starch and Chemical Co.  
I.D. No.: 137861AAC  
Application No.: 96030068  
September 3, 2002

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

FINAL DRAFT/PROPOSED CAAPP PERMIT  
National Starch and Chemical Co.  
I.D. No.: 137861AAC  
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September 3, 2002

- 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

<b>Application For Construction Permit (For CAAPP Sources Only)</b>	<b>For Illinois EPA use only</b>
	ID 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.

<b>Source Information</b>		
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. ID number:

<b>Owner Information</b>		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

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

<b>Applicant Information</b>		
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.

FINAL DRAFT/PROPOSED CAAPP PERMIT  
National Starch and Chemical Co.  
I.D. No.: 137861AAC  
Application No.: 96030068  
September 3, 2002

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

DGP:psj

Project Summary

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The National Starch and Chemical Company is located on South Washington Street in Meredosia. The source primarily manufactures adhesives, most of which are water-based, or solids-based and resins. In addition, the source has a storage tank farm, a wastewater treatment plant, and operates several boilers to produce steam for process use.

II. EMISSION UNITS

Significant emission units at this source areas follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
Water-Based Adhesives			
WBA11-1, 2	Add Tank	1972	Scrubber, SCR1
WBA12-1, 2	Add Tank	1972	Scrubber, SCR1
WBA13-1, 2	Add Tank	1978	Scrubber, SCR1
WBA11	Reactor with Reflux Condenser CND11	1972	None
WBA12	Reactor with Reflux Condenser CND12	1972	None
WBA13	Reactor	1978	None
WBA11-3	Hold Tank	1972	None
WBA12-3	Hold Tank	1972	None
WBA13-3	Hold Tank	1978	None
Solvent-Based Compounding			
SAC31-38	Eight Mix Tanks with Reflux Condensers, CND31-38	1994	None
Lacquers			
LCR21-1, 2, 3	Add Tank	1972	None
LCR22-1, 2, 3	Add Tank	1973	None
LCR21	Reactor with Reflux Condenser CND21	1986	None
LCR22	Reactor with Reflux Condenser CND22	1973	None
LCRBL1-7	Blend Tanks	1972	None
LCRBK1-8	Bulk Tanks	1986	None
Solid Adhesives			
BRNR	Incinerator	2002	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
EVA System (Ethylene-Vinyl Acetate)			
EVA1	Add Tank	1997	None
ST31	Eva Cooker Storage Tank	2002	Rotoclone and Submerged Loading
RXE/STR	Reactor/Stripper	1997	Condenser, CNDEVA (During Charging), Flare, FLRE (During Venting)
Polymer Resins			
PRL42-1, 2	Add Tank	1973	None
PRL45-1, 2	Add Tank	1995	None
PRL42	Reactor with Reflux Condenser CND42	1973	None
PRL45	Reactor with Reflux Condenser CND45	1995	None
PRL43	Pearlizer with Reflux Condenser CND43	1995	None
PRL44	Pearlizer with Reflux Condenser CND44	1993	None
RD1	Dryer 1 with Cyclone Separators	Pre-1972	None
RD2	Dryer 2	Pre-1972	
Crotonic Acid Conveying System			
PRL42	Air Conveyor/Add Tank	2000	Baghouse, BGH6
Solvent Recovery System			
DCT1 and DCT2	Two Decanters	2000	None
DC02 and DC03	Two Distillation Columns with Recovery Condensers	2000	None
Storage Tanks			
ST01	Vinyl Acetate Storage Tank, 500,000 Gallons, Internal Floating Roof	1994	Submerged Loading
ST02	Ethyl Acetate Storage Tank 1, 30,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
ST03	Diocetyl Maleate Storage Tank, 30,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST04	Chemical Storage Tank, 12,000 gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST05	Heptane Storage Tank 1, 20,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading

Emission Unit	Description	Date Constructed	Emission Control Equipment
ST06	Heptane Storage Tank 2, 12,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
ST09	Ethyl Acetate Storage Tank 2, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST10	Methyl Ethyle Ketone Storage Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST11	Ethanol Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST12	Isopropanol Storage Tank, 12,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST13	Ethyl Acrylate Storage Tank 1, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST14	Methyl Methacrylate Storage Tank, 12,000 Gallons, Vertical Fixed Roof	1994	Submerged Loading
ST15	Toluene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	1994	Submerged Loading
ST16	Chemical Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST17	Acrylonitrile Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST18	Ethyl Acrylate Storage Tank 2, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST19	Xylene Storage Tank, 12,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST20	2-Ethylhexyl Acrylate Storage Tank 1, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading

Emission Unit	Description	Date Constructed	Emission Control Equipment
ST21	Butylacrylate Storage Tank, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST22	2-Ethylhexyl Acrylate Storage Tank 2, 30,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST30	Ethylene Glycol Storage Tank, 1,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST32	Hydrochloric Acid Storage Tank 6,500 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST34	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST37	Ethyl Acetate Reclaim Tank, 10,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST38	Ethyl Acetate Storage Tank 10,000 Gallons Vertical Fixed Roof	Pre-1973	Submerged Loading
ST41	n-Methylacrylamide Storage Tank, 15,000 Gallons, Vertical Fixed Roof	Pre-1973	Submerged Loading
ST42	VV10 Acetate Storage Tank, 20,000 Gallons, Horizontal Fixed Roof	Pre-1973	Submerged Loading
BLR3	Natural Gas-Fired Boiler, 23.6 mmBtu/Hr	Pre-1970	None
BLR4 BLR6 BLR7	Three Natural Gas-Fired Boilers with No. 2 Fuel Oil Backup, 25.1 mmBtu/Hr Each	1978 1993 1997	None
BLR5	Natural Gas-Fired Boiler, 12.5 mmBtu/hr	1975	None

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	298.68
Sulfur Dioxide (SO <sub>2</sub> )	5.01
Particulate Matter (PM)	29.96
Nitrogen Oxides (NO <sub>x</sub> )	61.68
HAP, not included in VOM or PM	----
TOTAL	395.33

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the 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.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.