



## TABLE OF CONTENTS

|  | <u>PAGE</u> |
|--|-------------|
| 1.0 SOURCE IDENTIFICATION  | 4           |
| 1.1 Source   |             |
| 1.2 Owner/Parent Company   |             |
| 1.3 Operator   |             |
| 1.4 General Source Description                                       |             |
| 1.5 Title I Conditions   |             |
| 2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT               | 6           |
| 3.0 INSIGNIFICANT ACTIVITIES   | 8           |
| 3.1 Identification of Insignificant Activities                       |             |
| 3.2 Compliance with Applicable Requirements                          |             |
| 3.3 Addition of Insignificant Activities                             |             |
| 4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE                        | 10          |
| 5.0 OVERALL SOURCE CONDITIONS  | 12          |
| 5.1 Applicability of the Clean Air Act Permit Program (CAAPP)        |             |
| 5.2 Applicable Regulations   |             |
| 5.3 Non-Applicability of Regulations of Concern                      |             |
| 5.4 Source-Wide Operational and Production Limits and Work Practices |             |
| 5.5 Source-Wide Emission Limitations                                 |             |
| 5.6 General Recordkeeping Requirements                               |             |
| 5.7 General Reporting Requirements                                   |             |
| 5.8 General Operational Flexibility/Anticipated Operating Scenarios  |             |
| 5.9 General Compliance Procedures                                    |             |
| 6.0 NOT APPLICABLE TO THIS PERMIT                                    | 19          |
| 7.0 UNIT SPECIFIC CONDITIONS   | 20          |
| 7.1 Fuel Combustion Units  |             |
| 7.2 Iron Oxide Pigment Process Units                                 |             |
| 7.3 Barium Sulfate Process Units and Waste Water Treatment Silo Unit |             |
| 8.0 GENERAL PERMIT CONDITIONS  | 35          |
| 8.1 Permit Shield  |             |
| 8.2 Applicability of Title IV Requirements                           |             |
| 8.3 Emissions Trading Programs                                       |             |
| 8.4 Operational Flexibility/Anticipated Operating Scenarios          |             |
| 8.5 Testing Procedures   |             |
| 8.6 Reporting Requirements   |             |
| 8.7 Obligation to Comply with Title I Requirements                   |             |

|      |   |     |
|------|---|-----|
| 9.0  | STANDARD PERMIT CONDITIONS  | 41  |
| 9.1  | Effect of Permit  |     |
| 9.2  | General Obligations of Permittee  |     |
| 9.3  | Obligation to Allow Illinois EPA Surveillance   |     |
| 9.4  | Obligation to Comply with Other Requirements  |     |
| 9.5  | Liability   |     |
| 9.6  | Recordkeeping   |     |
| 9.7  | Annual Emissions Report   |     |
| 9.8  | Requirements for Compliance Certification   |     |
| 9.9  | Certification   |     |
| 9.10 | Defense to Enforcement Actions  |     |
| 9.11 | Permanent Shutdown  |     |
| 9.12 | Reopening And Reissuing Permit For Cause  |     |
| 9.13 | Severability Clause   |     |
| 9.14 | Permit Expiration and Renewal   |     |
| 10.0 | ATTACHMENTS   |     |
| 10.1 | Attachment 1 - Emissions of Particulate Matter from New Process Emission Units              | 1-1 |
| 10.2 | Attachment 2 - Emissions of Particulate Matter from Existing Process Emission Units         | 2-1 |
| 10.3 | Attachment 3 - Example Certification by a Responsible Official                              | 3-1 |
| 10.4 | Attachment 4 - Guidance on Revising This Permit   | 4-1 |
| 10.5 | Attachment 5 - Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only) | 5-1 |
| 10.6 | Attachment 6 - Guidance on Renewing This Permit   | 6-1 |

1.0 SOURCE IDENTIFICATION

1.1 Source

Elementis Pigments Inc.  
2001 Lynch Avenue  
East St. Louis, Illinois 62205-1717  
618/271-4700 Ext. 282

I.D. No.: 163045ADT  
Standard Industrial Classification: 2816, Inorganic Pigments

1.2 Owner/Parent Company

Elementis Pigments Inc.  
2001 Lynch Avenue  
East St. Louis, Illinois 62205-1717

1.3 Operator

Elementis Pigments Inc.  
2001 Lynch Avenue  
East St. Louis, Illinois 62205-1717

John Bonner, Engineering Manager  
618/271-4700 Ext. 282

1.4 General Source Description

Elementis Pigments Inc. is located at 2001 Lynch Avenue East St. Louis, Illinois. The source produces intermediate chemicals for distribution and sale. The two basic products manufactured at this facility are iron oxide pigments and barium sulfate.

1.5 Title I Conditions

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

- a. This permit contains Title I conditions that revise Title I requirements established in permits previously issued

for this source, which conditions are specifically designated as "T1R."

- b. This permit contains Title I conditions that are newly established in this CAAPP permit, which conditions are specifically designated as "T1N."

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

|                  |  |
|------------------|--|
| ACMA             | Alternative Compliance Market Account  |
| Act              | Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]   |
| AP-42            | Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 |
| ATU              | Allotment Trading Unit   |
| BAT              | Best Available Technology  |
| Btu              | British thermal unit   |
| CAA              | Clean Air Act [42 U.S.C. Section 7401 et seq.]   |
| CAAPP            | Clean Air Act Permit Program   |
| CAM              | Compliance Assurance Monitoring  |
| CFR              | Code of Federal Regulations  |
| ERMS             | Emissions Reduction Market System  |
| °F               | degrees Fahrenheit   |
| gal              | gallon   |
| HAP              | Hazardous Air Pollutant  |
| hr               | hour   |
| IAC              | Illinois Administrative Code   |
| I.D. No.         | Identification Number of Source, assigned by Illinois EPA  |
| ILCS             | Illinois Compiled Statutes   |
| Illinois EPA     | Illinois Environmental Protection Agency   |
| °K               | degrees Kelvin   |
| kpa              | kilopascals  |
| kg               | kilogram   |
| kW               | kilowatts  |
| LAER             | Lowest Achievable Emission Rate  |
| lb               | pound  |
| MACT             | Maximum Achievable Control Technology  |
| Mg               | Megagram   |
| mmBtu            | Million British thermal units  |
| mo               | month  |
| 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  |
| psia             | pounds per square inch absolute  |
| PSD              | Prevention of Significant Deterioration  |
| RMP              | Risk Management Plan   |
| SO <sub>2</sub>  | Sulfur Dioxide   |
| T                | Ton  |
| T1               | Title I - identifies Title I conditions that have been carried over from an existing permit  |
| T1N              | Title I New - identifies Title I conditions that are being established in this permit  |

|       |   |
|-------|---|
| T1R   | Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit |
| USEPA | United States Environmental Protection Agency   |
| VOM   | Volatile Organic Material   |
| yr    | year  |

### 3.0 INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

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

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

None

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

None

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

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

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)].

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 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 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

### 3.3 Addition of Insignificant Activities

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

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

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Fuel Combustion Units:

| Emission Unit    | Description  | Date Constructed | Emission Control Equipment |
|------------------|--|------------------|----------------------------|
| Erie City Boiler | Erie City Boiler (135 mmBtu/hr: Natural Gas Only)  | 1952             | None                       |
| Nebraska Boiler  | Packaged Nebraska Boiler (130.9 mmBtu/hr: Natural Gas or No. 2 Fuel Oil with 0.25% Sulfur Content) | 1977             | None                       |
| Johnston Boiler  | Johnston Boiler (12.6 mmBtu/hr: Natural Gas Only)  | 9/2005           | None                       |
| System 1 Dryer   | Natural Gas Fired Dryer (8.8 mmBtu/hr)   | 1974             | None                       |
| System 2 Dryer   | Natural Gas Fired Dryer (13.0 mmBtu/hr)  | 2/1973           | None                       |
| System 3 Dryer   | Natural Gas Fired Dryer (9.0 mmBtu/hr)   | 4/1999           | Baghouse                   |

Iron Oxide Pigment Process Units:

| Emission Unit             | Description           | Date Constructed | Emission Control Equipment |
|---------------------------|-----------------------|------------------|----------------------------|
| System 1 Imp Mill         | Milling Operation     | 1974             | Cyclone and Baghouse       |
| System 1 No. 1 Classifier | Classifier            | 1974             | Dust Collector             |
| System 1 No. 2 Classifier | Classifier            | 1974             | Dust Collector             |
| System 1 No. 3 Classifier | Classifier            | 1974             | Dust Collector             |
| System 1 Screw Conveyors  | Screw Conveyors       | 1974             | Dust Collector             |
| System 1 Fines Packer     | Packing Operation     | 1974             | Dust Collector             |
| System 1 Coarse Packer    | Packing Operation     | 1974             | Dust Collector             |
| JOD Dryer                 | Steam Dryer           | 1965             | Cyclone and Baghouse       |
| JOD Packer                | Packing Operation     | 1965             | Dust Collector             |
| System 2 Screw Conveyor   | Dryer Discharge Screw | 1973             | Dust Collector             |
| System 2 South Chaser     | Chaser                | 1982             | Baghouse                   |
| System 2 North Chaser     | Chaser                | 1987             | Baghouse                   |
| System 2 South Jet Mill   | Milling Operation     | 1995             | Baghouse                   |
| System 2 North Jet Mill   | Milling Operation     | 1995             | Baghouse                   |

| Emission Unit      | Description          | Date Constructed | Emission Control Equipment |
|--------------------|----------------------|------------------|----------------------------|
| System 2 Vacupress | Densifying Operation | 1995             | Dust Collector             |
| System 2 Imp Mill  | Milling Operation    | 1974             | Cyclone and Baghouse       |
| System 2 Packer    | Packing Operation    | 1982             | Dust Collector             |
| System 2A Packer   | Packing Operation    | 1982             | Dust Collector             |

Barium Sulfate Process Units and Waste Water Treatment Silo Unit:

| Emission Unit                  | Description   | Date Constructed | Emission Control Equipment |
|--------------------------------|---|------------------|----------------------------|
| Barium Sulfate Mill            | Milling Operation   | 1960             | Baghouse                   |
| Barium Sulfate Barytes Packer  | Packing Operation   | 1960             | Baghouse                   |
| Barium Sulfate Sparmite Packer | Packing Operation   | 1960             | Baghouse                   |
| Barium Sulfate Dryer           | Steam Dryer   | 1935             | Scrubber                   |
| Bleach Tank                    | Bleaching Operation   | 1935             | Scrubber                   |
| Large Storage Bin              | Soda Ash Storage Silo for the Wastewater Treatment Process (180 ton Capacity) | 1974             | Dust Collector             |

## 5.0 OVERALL SOURCE CONDITIONS

### 5.1 Applicability of Clean Air Act Permit Program (CAAPP)

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

5.1.2 This permit is issued based on the source not being a major source of HAPs.

### 5.2 Applicable Regulations

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

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

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

- a. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
- b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with

the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

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

#### 5.2.4 Ozone Depleting Substances

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.2.5 Risk Management Plan

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

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

#### 5.2.6 Future Emission Standards

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

#### 5.2.7 Episode Action Plan

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

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

5.2.8 CAM Plan

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

5.3 Non-Applicability of Regulations of Concern

None

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)    | 7.00      |
| Sulfur Dioxide (SO <sub>2</sub> )  | 5.00      |
| Particulate Matter (PM)            | 60.00     |
| Nitrogen Oxides (NO <sub>x</sub> ) | 175.00    |
| HAP, not included in VOM or PM     | ---       |
| Total                              | 247.00    |

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

The annual emissions from the source shall not exceed the following limitations:

| Pollutant       | E M I S S I O N S |             | Underlying Rules |
|-----------------|-------------------|-------------|------------------|
|                 | (Tons/Month)      | (Tons/Year) |                  |
| NO <sub>x</sub> | 17.5              | 175.0       | 40 CFR 52.21     |
| VOC             | 0.7               | 7.0         | 40 CFR 52.21     |
| SO <sub>2</sub> | 0.5               | 5.0         | 40 CFR 52.21     |
| PM              | 6.0               | 60.0        | 40 CFR 52.21     |

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 permits. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of previously issued permits, 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 revision to the emission limits eliminates inconsistencies between the initial construction permit and the subsequent operating permits at the facility and keeps the facility from being major for PSD. [T1R].

## 5.6 General Recordkeeping Requirements

### 5.6.1 Emission Records

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

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

### 5.6.2 Records for Operating Scenarios

N/A

### 5.6.3 Retention and Availability of Records

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

## 5.7 General Reporting Requirements

### 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7) (f) (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, including the following information, so as to demonstrate whether the source is being operated as a non-major source of HAP emissions. This report shall be submitted with the Annual Emissions Report (Condition 9.7).

- a. The annual emissions of individual HAPs for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year (e.g., for the month of January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all); and
- b. The total emissions of all HAPs combined for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year (e.g., for the month of January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all).

### 5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

### 5.9 General Compliance Procedures

#### 5.9.1 General Procedures for Calculating Emissions

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

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Fuel Combustion Units

7.1.1 Description

The Erie City boiler, Johnston boiler and the packaged Nebraska boiler are used for production of process steam for the facility. The dryers in the plant use either steam or natural gas to heat the air used to dry material. Air discharge from the dryers carry some material to the atmosphere after being circulated in the dryers. The boilers and the natural gas fired dryers, except system #3, do not utilize emission control equipment. The Erie City boiler, Johnston boiler and all the dryers combust natural gas as the fuel. The packaged boiler combusts natural gas and uses distillate No. 2 fuel oil (0.25% Sulfur content) for back-up fuel.

7.1.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit    | Description   | Emission Control Equipment |
|------------------|---|----------------------------|
| Erie City Boiler | Erie City Boiler<br>(135 mmBtu/hr: Natural Gas Only)  | None                       |
| Nebraska Boiler  | Packaged Nebraska Boiler<br>(130.9 mmBtu/hr: Natural Gas or No. 2 Fuel Oil with 0.25% Sulfur Content) | None                       |
| Johnston Boiler  | Johnston Boiler (12.6 mmBtu/hr: Natural Gas Only)   | None                       |
| System 1 Dryer   | Natural Gas Fired Dryer<br>(8.8 mmBtu/hr)   | None                       |
| System 2 Dryer   | Natural Gas Fired Dryer<br>(13.0 mmBtu/hr)  | None                       |
| System 3 Dryer   | Natural Gas Fired Dryer<br>(9.0 mmBtu/hr)   | Baghouse                   |

7.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected fuel combustion unit" for the purpose of these unit specific conditions, is a steam generating fuel combustion emission unit as described in Condition 7.1.1 and 7.1.2.
- b. An affected fuel combustion unit is subject to the emission limits identified in Condition 5.2.2.
- c. The Johnston boiler is subject to the notification and recordkeeping requirements established in New Source Performance Standard (NSPS) for Small Industrial, Commercial, and Industrial Steam

Generating Units, 40 CFR 60, Subpart A and Dc. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

- d. The emissions of particulate matter into the atmosphere in any one hour period shall not exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu) [35 IAC 212.206].
- e. The emission of sulfur dioxide (SO<sub>2</sub>) into the atmosphere in any one hour period from any affected fuel combustion unit burning liquid fuel exclusively shall not exceed 1.55 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.161(b)].
- f. The emission of carbon monoxide (CO) into the atmosphere from any affected fuel combustion unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- g. The emission of smoke or other particulate matter, shall not exceed an opacity greater than 30 percent, into the atmosphere from any affected fuel combustion unit [35 IAC 212.123(a)].

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

- a. The provisions of 35 IAC 217.141, Existing Emission Sources in Major Metropolitan Areas, shall not apply since the actual heat input of the fuel combustion units is less than 73.2 MW (250 mmBtu/hr). [35 IAC 217.141]
- b. The provisions of 35 IAC 219.301 and 302, Use of Organic Material, shall not apply to fuel combustion emission sources [35 IAC 219.303].

#### 7.1.5 Operational and Production Limits and Work Practices

- a. Natural Gas shall be the only fuel fired in an affected fuel combustion unit. Except: Nebraska Boiler is allowed to burn Distillate Fuel Oil #2 (0.28% sulfur content) as a back-up fuel only.
- b. The Permittee shall not utilize distillate fuel oil (Grades No. 1 and 2) in the Nebraska boiler 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: Maximum Wt percent sulfur = (0.000015) x (Gross heating value of oil, Btu/lb).
- c. At all times, the Permittee shall maintain and operate each affected fuel combustion unit in a manner consistent with good air pollution control practice for minimizing emissions.

7.1.6 Emission Limitations

- a. There are no specific emission limitations for these units, except the Johnston boiler, however, there are source wide emission limitations in Condition 5.5 that include all units.
- b. Emissions of the Johnston boiler shall not exceed the following limits:

| <u>Pollutant</u> | Boiler         |                  |
|------------------|----------------|------------------|
|                  | <u>(Lb/Hr)</u> | <u>(Tons/Yr)</u> |
| NO <sub>x</sub>  | 1.26           | 5.52             |
| CO               | 1.06           | 4.63             |

These limits are based on the fuel usage, standard emission factors and calculations as provided in the permit application. Compliance with the annual limits shall be determined from the running total of 12 months of data [T1N].

The above limitations are being established in this permit pursuant to 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). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the NO<sub>x</sub> and CO emissions from the affected Johnston boiler below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].

7.1.7 Testing Requirements

Testing requirements are not set for the affected boilers. However, there are general testing requirements in Condition 8.5.

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected fuel combustion unit to demonstrate compliance with Conditions 5.5.1 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Fuel oil supplier certification, including:
  - i. The date, place and time of sampling or measurements;
  - ii. The date(s) analyses were performed;
  - iii. The company or entity that performed the analyses;
  - iv. The analytical techniques or methods used;
  - v. The results of such analyses; and
  - vi. The operating conditions as existing at the time of sampling or measurement.
- b. Total natural gas usage for each affected fuel combustion unit (mmscf/month and mmscf/year);
- c. Total distillate fuel usage for the affected fuel combustion unit (gal/month and gal/year).
- d. The maximum sulfur content (in wt %) and the gross heating value of oil (mmBtu/lb) for each shipment of distillate fuel oil used in the affected fuel combustion unit.
- e. The Permittee shall keep inspection, maintenance and repair logs with dates and the nature of activities for each affected fuel combustion unit.
- f. Monthly and annual aggregate SO<sub>2</sub>, PM, NO<sub>x</sub>, and CO emissions, based on natural gas consumption and distillate oil consumption for each fuel combustion unit and the applicable emission factors from Condition 7.1.12(b) with supporting calculations.

7.1.10 Reporting Requirements

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

combustion 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:

- a. Emissions from or operation of an affected fuel combustion unit in excess of the limits specified in Conditions 7.1.3, 7.1.5, and 7.1.6 within 30 days of such occurrence.
- b. The Permittee shall fulfill all applicable notification and reporting requirements of the NSPS, 40 CFR 60.7 and 60.48c, for the Johnston boiler.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

- a. Compliance with Condition 7.1.3(c) and (e) are demonstrated by proper operating conditions of the affected fuel combustion unit.
- b. Compliance with the emission limits in Conditions 5.5 7.1.3(d) and 7.1.6 shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission factors and formulas listed below:
  - i. A. Emission factors for the affected fuel combustion unit when fired by natural gas:

| Pollutant       | Emission Factors (lb/mmscf) |
|-----------------|-----------------------------|
| VOM             | 5.5                         |
| PM              | 7.6                         |
| SO <sub>2</sub> | 0.6                         |
| NO <sub>x</sub> | 280                         |
| CO              | 84                          |

The emission factors (lb/mmscf) are for Natural Gas-Fired Small Fuel Combustion Units (> 100 mmBtu/hr Heat Input) from AP-42 Section 1.4 (dated 7/98).

or

| Pollutant       | Emission Factors<br>(lb/mmscf) |
|-----------------|--------------------------------|
| VOM             | 5.5                            |
| PM              | 7.6                            |
| SO <sub>2</sub> | 0.6                            |
| NO <sub>x</sub> | 100                            |
| CO              | 84                             |

The emission factors (lb/mmscf) are for Natural Gas-Fired Small Fuel Combustion Units (<100 mmBtu/hr Heat Input) from AP-42 Section 1.4 (dated 7/98).

- B. Emission formula for an affected fuel combustion unit when fired by natural gas:

(Fuel Combustion Unit Emissions, lb) =  
 (The Appropriate Emission Factor,  
 lb/mmscf) x (Fuel Combustion Unit Natural  
 Gas Usage, mmscf)

- ii. A. Emission factors for the affected fuel combustion unit when fired by distillate fuel oil:

| Pollutant       | Emission Factors<br>(lb/1,000 gal) |
|-----------------|------------------------------------|
| VOM             | 0.252                              |
| PM              | 2                                  |
| SO <sub>2</sub> | 142 (s)                            |
| NO <sub>x</sub> | 24                                 |
| CO              | 5                                  |

The emission factors (lb/1000 gal) are for Distillate Oil Fired Small Fuel combustion units (>100 mmBtu/hr Heat Input) from AP-42 Section 1.3 (dated 9/98). Note: (S) is the Sulfur content of the distillate fuel oil (wt.%).

- B. Emission formula for the affected fuel combustion unit when fired by distillate fuel oil:

(Fuel Combustion Unit Emissions, lb) =  
 (The Appropriate Emission Factor, lb/1000  
 gal) x (Distillate Fuel Oil Consumed  
 (1000 gal))

## 7.2 Iron Oxide Pigment Process Units

### 7.2.1 Description

Iron Oxide Pigments are generated by recovering soluble iron through a precipitation process, washing, drying, milling and packing. The pigments production starts with dissolving scrap iron in sulfuric acid. The dissolved iron is precipitated back to a solid, washed and then dried on apron dryers. After drying, the material is milled and then packed primarily in fifty-pound paper bags. Precipitation is a batch process all others are essentially continuous.

### 7.2.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit             | Description           | Emission Control Equipment |
|---------------------------|-----------------------|----------------------------|
| System 1 Imp. Mill        | Milling Operation     | Cyclone and Baghouse       |
| System 1 No. 1 Classifier | Classifier            | Dust Collector             |
| System 1 No. 2 Classifier | Classifier            | Dust Collector             |
| System 1 No. 3 Classifier | Classifier            | Dust Collector             |
| System 1 Screw Conveyors  | Screw Conveyors       | Dust Collector             |
| System 1 Fines Packer     | Packing Operation     | Dust Collector             |
| System 1 Coarse Packer    | Packing Operation     | Dust Collector             |
| JOD Dryer                 | Steam Dryer           | Cyclone and Baghouse       |
| JOD Packer                | Packing Operation     | Dust Collector             |
| System 2 Screw Conveyor   | Dryer Discharge Screw | Dust Collector             |
| System 2 South Chaser     | Chaser                | Baghouse                   |
| System 2 North Chaser     | Chaser                | Baghouse                   |
| System 2 South Jet Mill   | Milling Operation     | Baghouse                   |
| System 2 North Jet Mill   | Milling Operation     | Baghouse                   |
| System 2 Vacupress        | Densifying Operation  | Dust Collector             |
| System 2 Imp Mill         | Milling Operation     | Cyclone and Baghouse       |
| System 2 Packer           | Packing Operation     | Dust Collector             |
| System 2A Packer          | Packing Operation     | Dust Collector             |

7.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected process unit" for the purpose of these unit-specific conditions, is a process emission unit as described in Conditions 7.2.1 and 7.2.2.
- b. Each affected process unit is subject to the emission limits identified in Condition 5.2.2.
- c. An affected process unit based on construction and/or modification date is subject to 35 IAC 212.321(a), which provides that:

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

- d. An affected process unit based on construction and/or modification date is subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any 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 prior April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].

- e. An affected process unit is subject to 35 IAC 214.303, which provides that:

With the exception of fuel combustion emission sources and acid manufacturing, no person using sulfuric acid shall cause or allow the emission of sulfuric acid and/or sulfur trioxide from all other similar emission sources at a plant or premises to exceed:

- A. 45.4 grams in any one hour period for sulfuric acid usage less than 1180 Mg/yr (100 percent acid basis) (0.10 lbs/hr up to 1300 T/yr);
- B. 250 grams per metric ton of acid used for sulfuric acid usage greater than or equal to 1180 Mg/yr (100 percent acid basis) (0.50 lbs/T over 1300 T/yr).

7.2.4 Non-Applicability of Regulations of Concern

N/A

7.2.5 Operational and Production Limits and Work Practices

The Permittee shall follow good operating practices for the baghouse and associated air pollution control equipment, including periodic inspection, routine maintenance, and prompt repair of defects, so as to address compliance with the PM emission limits in Conditions 7.2.3 and 7.2.6 and the opacity emission limits in Condition 5.2.2.

7.2.6 Emission Limitations

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

7.2.7 Testing Requirements

None

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected process unit to demonstrate compliance with Conditions 5.5.1, 7.2.3, 7.2.5 and 7.2.6 pursuant to Section 39.5(7)(b) of the Act:

- a. Material throughput (tons/month and tons/year);
- b. Hours of operation (hours/month and hours/year); and
- c. Monthly and annual emissions of regulated air pollutants as calculated in accordance with compliance procedures in Condition 7.2.12.

7.2.10 Reporting Requirements

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

- a. Emissions from the operation of an affected process unit in excess of the limits specified in Conditions 7.2.3, 7.2.5 and 7.2.6 within 30 days of such occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

- a. Compliance with Conditions 7.2.3 and 7.2.6 shall be demonstrated by the records required in Condition 7.2.9 and the emissions calculation procedure in Conditions 7.2.12(b).
- b. Compliance with the emission limits in Conditions 5.5 and 7.2.6 shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below: Note: All PM emissions are considered PM<sub>10</sub> hence the factor for PM<sub>10</sub> are used.
  - i. Emission factors for the affected process units:

| Emission Factors          |   |   |
|---------------------------|---|---|
| Emission Unit             | PM <sub>10</sub> Emission Factor (lb/ton) | Emission Factors Source                       |
| System 1 Imp Mill         | 0.16                                      | AP-42, 5th Ed., Table 11.24-2                 |
| System 1 No. 1 Classifier | 0.071                                     | AP-42, Interim 5th Ed., 7/94, Table 11.19.2-2 |
| System 1 No. 2 Classifier | 0.071                                     | AP-42, Interim 5th Ed., 7/94, Table 11.19.2-2 |
| System 1 No. 3 Classifier | 0.071                                     | AP-42, Interim 5th Ed., 7/94, Table 11.19.2-2 |
| System 1 Screw Conveyors  | 0.06                                      | AP-42, 5th Ed., Table 11.24-2                 |

| Emission Factors              |   |   |
|-------------------------------|---|---|
| Emission Unit                 | PM <sub>10</sub> Emission Factor (lb/ton) | Emission Factors Source                             |
| System 1<br>Fines Packer      | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| System 1<br>Coarse Packer     | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| JOD Dryer                     | 12  | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| JOD Packer                    | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| System 2<br>Screw Conv        | 0.06                                      | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 2<br>South Chaser      | 0.071                                     | AP-42, Interim<br>5th Ed., 7/94,<br>Table 11.19.2-2 |
| System 2<br>North Chaser      | 0.071                                     | AP-42, Interim<br>5th Ed., 7/94,<br>Table 11.19.2-2 |
| System 2<br>South Jet<br>Mill | 0.16                                      | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 2<br>North Jet<br>Mill | 0.16                                      | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 2<br>Vacupress         | 0.071                                     | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 2 Imp<br>Mill          | 0.16                                      | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 2<br>Packer            | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| System 2A<br>Packer           | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| Black YDN<br>Dryer            | 12  | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| Black RF20<br>Mill            | 0.071                                     | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| Black RF20<br>Packer          | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |
| RC 20 Kiln                    | 12  | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 3 Mill                 | 0.071                                     | AP-42, 5th Ed.,<br>Table 11.24-2                    |
| System 3<br>Packer            | 0.095                                     | AIRS SCC Factor,<br>3-01-027-10<br>(3/90)           |

ii. Emission formula for the affected process units:

(Emissions, tons) = (The Appropriate Emission Factor, lb/ton) x Material Throughput (tons) / 2000 lb/ton;

or

(Emissions, tons) = (The Appropriate Emission Factor, lb/ton) x Hours of Operation (hr) / 2000 lb/ton.

7.3 Barium Sulfate Process Units and Wastewater Treatment Unit

7.3.1 Description

The Barium Sulfate raw material is ground natural ore. The ground ore is then bleached in a wet process using sulfuric acid. After bleaching, the material is washed to remove residual acid and dried in a rotary dryer. The dry material is milled and packed in fifty-pound paper bags. The Barium Sulfate process units utilize control equipment to control air-discharged emissions. The soda ash from the large soda ash storage bin is used in the wastewater treatment process.

7.3.2 List of Emission Units and Air Pollution Control Equipment

| Emission Unit                  | Description                                    | Emission Control Equipment |
|--------------------------------|--|----------------------------|
| Barium Sulfate Mill            | Milling Operation                              | Baghouse                   |
| Barium Sulfate Barytes Packer  | Packing Operation                              | Baghouse                   |
| Barium Sulfate Sparmite Packer | Packing Operation                              | Baghouse                   |
| Barium Sulfate Dryer           | Steam Dryer                                    | Scrubber                   |
| Bleach Tank                    | Bleaching Operation                            | Scrubber                   |
| Large Storage Bin              | Large Soda Ash Storage Bin (180 Tons Capacity) | Baghouse                   |

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected process unit" for the purpose of these unit-specific conditions, is a process emission unit as described in Conditions 7.3.1 and 7.3.2.
- b. Each affected process unit is subject to the emission limits identified in Condition 5.2.2.
- c. An affected process unit based on construction and/or modification date is subject to 35 IAC 212.321(a), which provides that:

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

- d. An affected process unit based on construction and/or modification date is subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any 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 prior April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].

- e. An affected process unit is subject to 35 IAC 214.303, which provides that:

With the exception of fuel combustion emission sources and acid manufacturing, no person using sulfuric acid shall cause or allow the emission of sulfuric acid and/or sulfur trioxide from all other similar emission sources at a plant or premises to exceed:

- A. 45.4 grams in any one hour period for sulfuric acid usage less than 1180 Mg/yr (100 percent acid basis) (0.10 lbs/hr up to 1300 T/yr);
- B. 250 grams per metric ton of acid used for sulfuric acid usage greater than or equal to 1180 Mg/yr (100 percent acid basis) (0.50 lbs/T over 1300 T/yr).

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

- a. This permit is issued based on the affected process units not being subject to 40 CFR Part 61, Subpart GGG, National Emission Standards for Pharmaceuticals Production because the affected units are part of a process that that does not process, use, or produce HAPs. The end product is a bulk, dry inorganic chemical that is shipped off-site to pharmaceutical facilities.
- b. This permit is issued based on the affected process units not being subject to 35 IAC 215, Subpart T, Pharmaceutical Manufacturing, because the affected

units are part of a process that does not process, use, or produce VOM. The end product is a bulk, dry inorganic chemical that is shipped off-site to pharmaceutical facilities.

7.3.5 Operational and Production Limits and Work Practices

None

7.3.6 Emission Limitations

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

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected process unit to demonstrate compliance with Conditions 5.5.1, 7.3.3, 7.3.5 and 7.3.6 pursuant to Section 39.5(7) (b) of the Act:

- a. Material throughput (tons/month and tons/year);
- b. Hours of operation (hours/month and hours/year); and
- c. Monthly and annual emissions of regulated air pollutants as calculated in accordance with compliance procedures in Condition 7.3.12.

7.3.10 Reporting Requirements

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

- a. Emissions from the operation of an affected process unit in excess of the limits specified in Conditions 7.3.3, 7.3.5 and 7.3.6 within 30 days of such occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

- a. Compliance with Conditions 7.3.3 and 7.3.6 shall be demonstrated by the records required in Condition 7.3.9 and the emissions calculation procedure in Conditions 7.3.12(b).
- b. Compliance with the emission limits in Conditions 5.5 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below: Note: All PM emissions are considered PM<sub>10</sub> hence the factor for PM<sub>10</sub> are used.
  - i. Emission factors for the affected process units:

| Emission Factors               |   |  |
|--------------------------------|---|--|
| Emission Unit                  | PM <sub>10</sub> Emission Factor (lb/ton) | Emission Factors Source                  |
| Barium Sulfate Mill            | 0.16                                      | AP-42, 5th Ed., Table 11.24-2            |
| Barium Sulfate Barytes Packer  | 0.095                                     | AIRS SCC Factor, 3-01-027-10 (3/90)      |
| Barium Sulfate Sparmite Packer | 0.095                                     | AIRS SCC Factor, 3-01-027-10 (3/90)      |
| Barium Sulfate Dryer           | 12  | AP-42, 5th Ed., Table 11.24-2            |
| Bleach Tank                    | N/A                                       | Negligible Emissions                     |
| Large Storage Bin              | 0.06                                      | AP-42, 5 <sup>th</sup> Ed. Table 11.24-2 |

- ii. Emission formula for the affected process units:

$$(\text{Emissions, tons}) = (\text{The Appropriate Emission Factor, lb/ton}) \times \text{Material Throughput (tons)} / 2000 \text{ lb/ton};$$

or

$$(\text{Emissions, tons}) = (\text{The Appropriate Emission Factor, lb/ton}) \times \text{Hours of Operation (hr)} / 2,000 \text{ lb/ton}.$$

## 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 August 22, 2002 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

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

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

### 8.3 Emissions Trading Programs

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

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

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

#### 8.4.2 Changes Requiring Prior Notification

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

- a. The changes do not violate applicable requirements;

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

#### 8.5 Testing Procedures

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

## 8.6 Reporting Requirements

### 8.6.1 Monitoring Reports

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

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

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

### 8.6.2 Test Notifications

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

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

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

#### 8.6.3 Test Reports

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

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

#### 8.6.4 Reporting Addresses

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

- i. Illinois EPA - Air Compliance Section

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

- ii. Illinois EPA - Air Regional Field Office

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

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

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

iv. USEPA Region 5 - Air Branch

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

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

#### 8.7 Obligation to Comply with Title I Requirements

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

## 9.0 STANDARD PERMIT CONDITIONS

### 9.1 Effect of Permit

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

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

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

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

### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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

equipment), practices, or operations regulated or required under this permit;

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

#### 9.4 Obligation to Comply With Other Requirements

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

#### 9.5 Liability

##### 9.5.1 Title

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

##### 9.5.2 Liability of Permittee

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

##### 9.5.3 Structural Stability

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

##### 9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

#### 9.5.5 Property Rights

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

### 9.6 Recordkeeping

#### 9.6.1 Control Equipment Maintenance Records

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

#### 9.6.2 Records of Changes in Operation

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

#### 9.6.3 Retention of Records

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

### 9.7 Annual Emissions Report

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

### 9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7) (p) (v) of the Act, the Permittee shall submit annual compliance certifications. The compliance

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

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

#### 9.9 Certification

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

#### 9.10 Defense to Enforcement Actions

##### 9.10.1 Need to Halt or Reduce Activity Not a Defense

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

##### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Normally, an act of God such as lightning or flood is considered an emergency;

- ii. The permitted source was at the time being properly operated;
  - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

#### 9.11 Permanent Shutdown

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

#### 9.12 Reopening and Reissuing Permit for Cause

##### 9.12.1 Permit Actions

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

#### 9.12.2 Reopening and Revision

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

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

#### 9.12.3 Inaccurate Application

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

#### 9.12.4 Duty to Provide Information

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

#### 9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements

underlying these provisions shall remain in force [Section 39.5(7) (i) of the Act].

#### 9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

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

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

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

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

Where:

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

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

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

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

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

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

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

10.2 Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced Prior to After April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

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

Where:

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

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

|   | Metric | English |
|---|--------|---------|
| P | Mg/hr  | T/hr    |
| E | kg/hr  | lb/hr   |
| A | 1.985  | 4.10    |
| B | 0.67   | 0.67    |
| C | 0      | 0       |

- ii. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

|   | Metric | English |
|---|--------|---------|
| P | Mg/hr  | T/hr    |
| E | kg/hr  | lb/hr   |
| A | 25.21  | 55.0    |
| B | 0.11   | 0.11    |
| C | -18.4  | -40.0   |

- c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

| Metric |       | English |       |
|--------|-------|---------|-------|
| P      | E     | P       | E     |
| Mg/hr  | kg/hr | T/hr    | lb/hr |
| 0.05   | 0.27  | 0.05    | 0.55  |
| 0.1    | 0.42  | 0.10    | 0.87  |
| 0.2    | 0.68  | 0.2     | 1.40  |
| 0.3    | 0.89  | 0.30    | 1.83  |
| 0.4    | 1.07  | 0.40    | 2.22  |
| 0.5    | 1.25  | 0.50    | 2.58  |
| 0.7    | 1.56  | 0.75    | 3.38  |
| 0.9    | 1.85  | 1.00    | 4.10  |
| 1.8    | 2.9   | 2.00    | 6.52  |
| 2.7    | 3.9   | 3.00    | 8.56  |
| 3.6    | 4.7   | 4.00    | 10.40 |
| 4.5    | 5.4   | 5.00    | 12.00 |
| 9.0    | 8.7   | 10.00   | 19.20 |
| 13.0   | 11.1  | 15.00   | 25.20 |
| 18.0   | 13.8  | 20.00   | 30.50 |
| 23.0   | 16.2  | 25.00   | 35.40 |
| 27.2   | 18.15 | 30.00   | 40.00 |
| 32.0   | 18.8  | 35.00   | 41.30 |
| 36.0   | 19.3  | 40.00   | 42.50 |
| 41.0   | 19.8  | 45.00   | 43.60 |
| 45.0   | 20.2  | 50.00   | 44.60 |
| 90.0   | 23.2  | 100.00  | 51.20 |
| 140.0  | 25.3  | 150.00  | 55.40 |
| 180.0  | 26.5  | 200.00  | 58.60 |
| 230.0  | 27.7  | 250.00  | 61.00 |
| 270.0  | 28.5  | 300.00  | 63.10 |
| 320.0  | 29.4  | 350.00  | 64.90 |
| 360.0  | 30.0  | 400.00  | 66.20 |
| 400.0  | 30.6  | 450.00  | 67.70 |
| 454.0  | 31.3  | 500.00  | 69.00 |

10.3 Attachment 3 - 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: \_\_\_\_\_

#### 10.4 Attachment 4 - Guidance on Revising This Permit

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

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

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

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

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

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

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

### 3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

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

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

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

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

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

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

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



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

|   |                                  |
|---|----------------------------------|
| <b>Application For Construction Permit (For CAAPP Sources Only)</b> | <b>For Illinois EPA use only</b> |
|   | I.D. number:                     |
|   | Permit number:                   |
| Date received:  |                                  |

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

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

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

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

| Applicant Information   |  |
|---|--|
| 19. Who is the applicant?<br><input type="checkbox"/> Owner <input type="checkbox"/> Operator | 20. All correspondence to: (check one)<br><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.

| <b>Summary Of Application Contents</b>  |  |
|---|--|
| 24. Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs:<br>a) Non-attainment New Source Review – 35 IAC Part 203;<br>b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21;<br>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:<br>a) Board Emission Standards – 35 IAC Chapter I, Subtitle B;<br>b) Federal New Source Performance Standards – 40 CFR Part 60;<br>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?<br>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<br><br><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.

| <b>Signature Block</b>   |                    |
|--|--------------------|
| 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.<br>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.

10.6 Attachment 6 - 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 form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance certification for the source. For this purpose, the Illinois EPA will accept a copy of the most recent form 401-CAAPP, ANNUAL COMPLIANCE CERTIFICATION submitted to the Illinois EPA.
3. 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.
4. Information addressing any outstanding transfer agreement pursuant to the ERMS.
5.
  - 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. 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.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance

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

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

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

Mail renewal applications to:

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