Draft CAAPP PERMIT
March 5, 2008

217/782-2113

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

PERMITTEE:

Cabot Corporation, Cab-O-Sil Division
Attn: Amy Clyde
700 East U.S. Highway 36
Tuscola, Illinois 61953-9643

I.D. No.: 041808AAH
Application No.: 96030080

Date Received: July 22, 2005
Date Issued: To Be Determined
Expiration Date[1]: To Be Determined

Operation of: Fumed Metal Oxide Manufacturing Plant
Source Location: 700 East U.S. Highway 36, Tuscola, Douglas County, 61953
Responsible Official: Carl Troike, General Manager

This permit is hereby granted to the above-designated Permittee to OPERATE a Fumed Metal Oxide Manufacturing Plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:DGP:psj

cc: Illinois EPA, FOS, Region 3
CES
Lotus Notes

[1] Except as provided in Conditions 1.5 and 8.7 of this permit.

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1.0 INTRODUCTION

1.1 Source Identification

Cabot Corporation, Cab-O-Sil Division
700 East U.S. Highway 36
Tuscola, Illinois 61953-9643
217/253-3370

I.D. No.: 041808AAH
County: Douglas
Standard Industrial Classification: 2819, Industrial Inorganic Chemicals

1.2 Owner/Parent Company

Cabot Corporation
75 State Street
Boston, Massachusetts 02109

1.3 Operator

Cabot Corporation, Cab-O-Sil Division
700 East U.S. Highway 36
Tuscola, Illinois 61953-9643

Amy Clyde, Environmental Manager
217/253-5591

1.4 Source Description

The Cabot Corporation, Cab-O-Sil Division is located at 700 East U.S. Highway 36 in Tuscola, Douglas County. The source produces fumed metal oxides by the flame hydrolysis of a blend of chlorosilanes, silicon tetrachloride, methyl trichlorosilane, tricholorsilane, and aluminum trichloride. HCl gas is a by-product of the reaction and it is absorbed into water and sold as hydrochloric acid or disposed of. The source also operates several other related operations where the fumed metal oxides are treated to produce specific products. Also included are several research facilities on-site for the development of both treated and untreated products.

Note: This narrative description is for informational purposes only and is not enforceable.

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 PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in

effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

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

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

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
BACT	Best Available Control Technology
BAT	Best Available Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
Cl_2	Chlorine
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
HCl	Hydrochloric Acid
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
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
T1	Title I – identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
TDC	Treatment Development Center

TS	Treated Silica
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 CONDITIONS FOR 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:

Pressurized Feed Stock Storage Spheres (Nos. 31, 32, and 33
Pressurized Feed Stock Storage Bullets (Nos. 34 to 42)
RCRA Waste Handling System
Three Natural Gas-Fired Calcining Units (B2A, B2B, B2D). These are classified as fuel combustion units because the combustion gases do not directly contact the process materials. Firing rates are 3.0, 2.0, and 3.2 mmBtu/hr, respectively.

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:

TDC Bagging Machine

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

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

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

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

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

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

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 5.3.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 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 (see Attachment 2) and 35 IAC Part 266. 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.

3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.

3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70 °F, the Permittee shall comply with the applicable requirements of 35 IAC 215.122, which requires use of a

permanent submerged loading pipe, submerged fill, or a vapor recovery system.

3.3 Testing of Insignificant Units

3.3.1 The Pressurized Storage Spheres (Nos. 31-33) and Pressurized Storage Bullets (Nos. 34-42) shall undergo an annual certification of adequacy of tank thickness. The results of the tests shall be submitted to the Compliance Section and FOS Section within 30 days of receipt from the tester.

3.4 Addition of Insignificant Activities

3.4.1 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).

3.4.2 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.

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment	Date Constructed or Modified
Section 7.1			
“A” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter and Product Material Handling.	Bag Filter on Material Handling	[a]
“B” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter and Product Material Handling.	Bag Filter on Material Handling	[a]
Pilot Process Plant	Includes Burners, Methane Injection, Heat Exchanger, and Product Separator	None	[a]
Process Development Laboratory (PDL)	Includes Burners, Heat Exchanger, and Product Separator	None	[a]
“AB” HCl Recovery Unit (from “A”, “B”, Pilot Plant and PDL)	Scrubber/Absorbers Temporary and Long Term Storage	None	[a]
“C” Unit	Includes Burners, Methane Injection, Heat Exchanger, and Product Separator	Bag Filter on Material Handling	[a]
“D” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter, and Product Material Handling	Bag Filter on Material Handling	[a]
“E” Unit	Includes Burners, Methane Injection, Heat Exchanger, Fluid Bed Reactor, Product Separator, And Filter and Product Material Handling	Wet Scrubber on Fluid Bed Reactor and Bag Filter on Material Handling	[a]
“DE” HCl Recovery Unit (from “C”, “D” and “E” Units)	Scrubber/Absorbers Temporary and Long Term Storage	None	[a]

Emission Unit	Description	Emission Control Equipment	Date Constructed or Modified
Section 7.2			
TS-XXX*	Holding Tanks Reactors and Mills and Other Miscellaneous Equipment Depending Upon Process	Bagfilters (3)	1987 1992 1996
Section 7.3			
AMDC-2	Mixing Tank, Reactor and Dryer, and Miscellaneous Unvented Equipment	Two Condensers (A and B)	1998
TDC	Several Lines Including FDP Process, FRS Process, and Jet Mill Process	Thermal Oxidizer, Condenser, Scrubber, and Baghouses as Needed	1999
Section 7.4			
Tanks 0044 and 0045	250,000 Gallon Fixed Roof Storage Tanks	K-16 Scrubber	1974
Loadout	Railcar and Tank Truck HCl Loading	K-15 Scrubber	1974
Two Gasoline Storage Tanks	For Plant Vehicles (300 or less gallons each)	Submerged Loading Pipe	
Section 7.5			
Jet Mill	Classifier/Mill and Cyclone	Baghouse BF-1	2000
Jet Mill	Three Storage Tanks (1, 2, 3)	Baghouses BF-2, 3 and 4	2000
Section 7.6			
Bag Emptying Process	Bag Emptying, Hopper Cyclones, Tanks	Baghouse	1993
D Unit Bulk Loading	Railcar and Truck Loading of Fumed Metal Oxides	Baghouse	[a]

[a] Units were originally constructed prior to 1970, but a 1992 construction permit and sequenced installation classifies the units as new or modified rather than existing.

* Includes “F”, “G” and “H” Units.

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 as a major source of CO and HAP emissions.

5.1.2 For information purposes and because CO emissions are not listed in Condition 5.6.1 (emissions for fee purposes), allowable CO emissions are 1,160 tons/year.

5.1.3 For purposes of the CAAPP, Cabot Corporation is considered a single source with Air Products and Chemicals, I.D. No. 041808AAM, located at 700 East U.S. Highway 36 West, Tuscola. The Permittees have elected to obtain separate CAAPP permits for their operations

5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead, NO_2, ozone, $PM_{2.5}$, PM_{10}, SO_2).

5.3 Source-Wide Applicable Provisions and Regulations

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

5.3.2 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. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

5.3.3 Ozone Depleting Substances

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

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

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

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.3.4 Risk Management Plan (RMP)

a. This stationary source, as defined in 40 CFR 68.3, is subject to 40 CFR Part 68, the federal regulations for Chemical Accident Prevention. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(1).

b. The owner or operator of a stationary source shall revise and update the RMP submitted pursuant to 40 CFR 68.150, as specified in 40 CFR 68.190.

5.3.5 Future Emission Standards

a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B 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 Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).

b. This permit and the terms and conditions herein do not affect the Permittee’s past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

c. The two HCl scrubber/absorber units, HCL storage tanks and HCl tank truck loading operation are subject to a NESHAP, 40 CFR 63 Subpart NNNNN, Hydrochloric Acid Production [§63.8980 through 63.9075 plus tables]. However, these units were part of a Early Reduction Project as allowed pursuant to 40 CFR 63 Subpart D. Emission units approved

under this provision do not have to comply with the Subpart NNNNN standard until six years after the normal compliance date of April 17, 2006 and thus April 17, 2012. These units are described in Sections 7.1 and 7.4 of this permit.

5.3.6 Episode Action Plan

a. Pursuant to 35 IAC 244.141, 244.142, and 244.143, 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 and is incorporated by reference into this permit.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared by the Director of the Illinois EPA or his or her designated representative.

c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there are terms for unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

5.5 Source-Wide Control Requirements and Work Practices

Source-wide control requirements and work practices are not set for this source. However, there are requirements for unit specific control requirements and work practices set forth in Section 7 of this permit.

5.6 Source-Wide Production and Emission Limitations

5.6.1 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 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	42.21
Sulfur Dioxide (SO_2)	0.02
Particulate Matter (PM)	65.21
Nitrogen Oxides (NO_x)	3.59
HAP, not included in VOM or PM	232.62[a]
Total	343.65

[a] A small fraction of the total HCl (a HAP) is emitted as an aerosol which is subject to PM emitting rules (See Condition 7.4.3), but greater than 99% of HCl is emitted as a vapor and the entire amount is listed here instead of PM.

5.6.2 Emissions of Hazardous Air Pollutants

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

5.6.3 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, or Section 502(b)(10) of the CAA. However, there are unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].

b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or

operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].

c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there are provisions for unit specific monitoring set forth in Section 7 of this permit.

5.9 Source-Wide Recordkeeping Requirements

5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.2 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with Section 5 permit requirements within 30 days, 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. There are also reporting

requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

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

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source. However, there are provisions for unit specific operational flexibility set forth in Section 7 of this permit.

5.12 Source-Wide Compliance Procedures

5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

This section is reserved for emissions control programs. As of the date of issuance of this permit, there are no such programs applicable to this source.

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Fumed Metal Oxide Manufacturing

7.1.1 Description

Several process lines operate in a similar manner but there are minor variations. Each of the lines combust with air and hydrogen one or more of the following materials: silicon tetrachloride, methyl trichlorosilane, trichlorosilane, and aluminum trichloride.

Immediately following the main reaction methane is injected into the process stream for a further reaction to convert byproduct chlorine into HCl which can be removed as a saleable product. Chlorine and HCl are both HAPs. There are two sets of absorption towers which remove HCl but these are not classified as control equipment since the HCl solution is sold as a product. The E unit does have a small scrubber (D2E) for HCl removal that is considered control equipment since the HCl solution is not a saleable material.

Each process line has a filter for separating the product (solid form) from process gases. These filters are not control equipment since they are necessary for product recovery. However, there are filters on the product lines after further processing and/or storage/bagging/shipping.

Some units have calciners but the heating unit for the calcining is small enough to be included in insignificant emission units. The heat is indirect.

The methane injection process increases emissions of CO, but greatly reduces emissions of HAPs.

The process stream that includes CO, Cl_2, Chloromethanes and HCl is vented through a single stack. Material handling processes are vented near ground level.

Note: This narrative description is for informational purposes only and is not enforceable.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
“A” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter and Product Material Handling.	[a]	Bag Filter on Material Handling

Emission Unit	Description	Date Constructed	Emission Control Equipment
“B” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter and Product Material Handling.	[a]	Bag Filter on Material Handling
Pilot Process Plant	Includes Burners, Methane Injection, Heat Exchanger, and Product Separator	[a]	None
Process Development Laboratory (PDL)	Includes Burners, Heat Exchanger, and Product Separator	[a]	None
“AB” HCl Recovery Unit (from “A”, “B”, Pilot Plant and PDL)	Scrubber/Absorbers[b] Temporary and Long Term Storage	[a]	None
“C” Unit	Includes Burners, Methane Injection, Heat Exchanger, and Product Separator	[a]	Bag Filter on Material Handling
“D” Unit	Includes Burners, Methane Injection, Heat Exchanger, Product Separation Filter, and Product Material Handling	[a]	Bag Filter on Material Handling
“E” Unit	Includes Burners, Methane Injection, Heat Exchanger, Fluid Bed Reactor, Product Separator, and Filter and Product Material Handling	[a]	Wet Scrubber (D2E) on Fluid Bed Reactor and Bag Filter on Material Handling
“DE” HCl Recovery Unit (from “C”, “D” and “E” Units)	Scrubber/Absorbers[b] Temporary and Long Term Storage	[a]	None

[a] Units were originally constructed prior to 1970, but a 1992 construction permit and sequenced installation classifies the units as new or modified rather than existing.

[b] The scrubbers/absorbers are not control equipment since some or all of the material absorbed is sold as a product (hydrochloric acid).

7.1.3 Applicable Provisions and Regulations

a. The “affected fumed metal oxide manufacturing lines” for the purpose of these unit-specific conditions, are manufacturing operations described in Conditions 7.1.1 and 7.1.2.

b. Each affected unit is subject to the opacity limits of 35 IAC 212 Subpart B (§212.123) and PM limits of Subpart L (§212.321). The method to calculate allowable for Subpart L is listed in Attachment 2. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

7.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected fumed metal oxides manufacturing lines not being subject to the New Source Performance Standards (NSPS) for Air Oxidation Processes, 40 CFR Part 60, Subpart III, because the affected process does not manufacture any of the chemicals listed in the table in 40 CFR 60.617.

b. This permit is issued based on the affected fumed metal oxides manufacturing lines not being subject to 35 IAC 216.362, because although some of the processes begin with hydrocarbons, the final product is not a poly-basic organic acid as defined in 35 IAC 211.4810.

c. The affected vent to the tall stack is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected stack vent is subject to an emission limitation or standard for which this CAAPP permit specifies a continuous compliance determination method, pursuant to 40 CFR 64.2(b)(1)(vi). This stack monitor was required by a PSD permit and directly monitors emissions and is not parametric monitoring.. See Condition 7.1.8(b). This condition also requires a backup monitor. The vent to the tall stack are combined emissions from the “AB” HCl Recovery Unit and the “DE” HCl Recovery unit.

d. The affected “E” unit scrubber is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected “E” unit scrubber is not subject to an emission limitation or standard for the applicable regulated air pollutant.

7.1.5 Control Requirements and Work Practices

a. Emissions of carbon monoxide (CO) from the methane injection process shall be controlled by operating practice, consistent with effective operation to minimize chlorine and chloromethane emissions.

b. The reaction gases in the methane injection process shall have an excess of oxygen.

c. Carbon monoxide concentration in the exhaust gas shall not exceed 5,000 ppm, hourly average.

d. Chlorine concentration in the exhaust gas at the stack shall not exceed 500 ppm, hourly average. This limit does not apply during periods of startup, grade change, or production rate changes.

e. Emissions of CO from the calciners shall be controlled by firing commercial fuel, e.g., natural gas or propane, and good operating practice.

Conditions 7.1.5(a)-(e) represent the application of Best Available Control Technology (BACT). The conditions were established in Permit 92060026

f. The Permittee shall follow good operating practices for the baghouses and scrubbers. This includes following the manufacturer's recommendations, periodic inspection (a minimum of annually), routine maintenance and prompt repair of defects. Prompt for purposes of this condition shall mean within 5 days unless additional time is needed to schedule an outage or order parts.

7.1.6 Production and Emission Limitations

a. In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected fumed metal oxide units are subject to the following:

Emissions from the affected fumed metal oxides manufacturing lines shall not exceed the following limits:

Contaminant	Emissions (All Lines Combined) (Tons/Month)	(Tons/Year)
Carbon Monoxide	100	1,160
Chlorine and Hydrogen Chloride	30	233
Chloromethanes	1.0	9.0

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current

month plus the preceding 11 months (running 12 month total) [T1].

The above limitation for CO was established in Permit 92060026, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The limits for chlorine, hydrogen chloride and chloromethanes were established in order to demonstrate a 90% reduction in HAP emissions for purposes of an Early Reduction Program pursuant to the NESHAP, 40 CFR 63 Subpart D. [T1].

7.1.7 Testing Requirements

a. Upon request by the Illinois EPA, the stack through which all of the above units vent shall be tested for CO, chlorine (Cl_2), hydrogen chloride (HCl) and chloromethanes.

7.1.8 Monitoring Requirements

a. The methane injection systems on each line shall be equipped with a continuous temperature indicator and strip chart recorder or disk storage for reaction temperature(s).

b. The Permittee shall install, operate and maintain a continuous monitoring system on the metal oxide plant stack such as a mass spectrometer or other equivalent device acceptable to the Illinois EPA, which in conjunction with a computerized program, shall determine and record total chlorine, hydrogen chloride, chloromethanes, and carbon monoxide concentration and emissions. The monitoring system for HAPs shall include a backup device for operation during malfunction of the primary unit so as to achieve a minimum on-stream time of 75% over the reporting quarter.

c. Each baghouse shall be equipped with a gauge to measure pressure differential across the filters in the baghouse.

d. The scrubbant shall be checked daily for suspended solids (daily during scrubber use). The solids content in the scrubbant shall be checked prior to disposal.

e. Each of the methane injection processes shall have a device to measure excess oxygen to verify compliance with Condition 7.1.5(b).

f. Compliance Assurance Monitoring (CAM) Requirements

The affected bagfilters on the “A”,, “B”, “D”, and “E” units are subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 3, Table 3A, pursuant to 40 CFR Part 64 as submitted in the Permittee’s CAM plan application. At all

times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment [40 CFR 64.7(a) and (b)].

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected fumed metal oxide units to demonstrate compliance with Conditions 5.6.1, 7.1.5 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Raw Material Usage and Operating Conditions

i. Production rates combined lines (lb/day);

ii. Natural gas and hydrogen usage, combined lines (lb or ft^3 per day);

iii. Reaction temperature for methane injection system, each line (°F);

iv. excess oxygen for methane injection system, each line (%);

v. Pressure differential across the filters in each baghouse (Pressure differential units, daily); and

vi. Records to verify good operating practices required by Condition 7.1.5(f).

b. Emissions Information

i. Chlorine emissions (ppm, lb/day and ton/yr);

ii. Chloromethane emissions (lb/day and ton/yr);

iii. Carbon monoxide emissions (ppm, lb/day and ton/yr);

iv. Hydrogen chloride emissions (lb/day and ton/yr); and

v. PM emissions (ton/mo and ton/yr).

c. Records of the operation, maintenance, and calibration of the monitoring systems.

d. Records for Compliance Assurance Monitoring (CAM) Requirements

The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting

information related to the monitoring requirements in Condition 7.1.8(a), as required by 40 CFR 64.9(b)(1).

e. The Permittee shall keep a record of the design features of the Methane Injection System that demonstrate that in conjunction with the burner controls the system is designed to operate with excess oxygen in order to meet compliance with Condition 7.1.5(b).

f. The results of daily testing the scrubbant for suspended solids (%).

g. Records for good operating practices to verify compliance with Condition 7.1.5(f).

7.1.10 Reporting Requirements

a. Reporting of Deviations

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

i. Emissions of carbon monoxide, chlorine, hydrogen chloride or chloromethanes from the affected fumed metal oxide units in excess of the limits specified in Condition 7.1.6 within 30 days of such occurrence.

ii. Operation of the affected fumed metal oxide units in excess of the limits specified in Condition 7.1.5(c) or (d) within 5 days of such occurrence and a follow-up report within 15 days.

b. The Permittee shall submit to the Compliance Section and FOS Regional Office a quarterly CEM Excess Emission Report similar to the report outlined in 35 IAC 201.405 that includes hours of operation, downtime of CEM, fumed metal oxides production records and an emission summary to show compliance with permit conditions.

c. Reporting of Compliance Assurance Monitoring (CAM)

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

i. Summary information on the number, duration, and cause of excursions or exceedances, and the

corrective actions taken [40 CFR 64.6(c)(3) and 64.9(a)(2)(i)]; and

ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c)(3) and 64.9(a)(2)(ii)].

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

a. Operational flexibility is not set for the affected fumed metal oxide units.

7.1.12 Compliance Procedures

a. Compliance with Condition 7.1.3 (b) is addressed by the monitoring requirements of Conditions 7.1.8(c) and (d) and the records and reports required in Conditions 7.1.9(a) and (c) and 7.1.10.

b. Compliance with Conditions 7.1.5(a)-(e) are addressed by the continuous monitoring requirements in Condition 7.1.8(a) and (b), the records required in Condition 7.1.9(a)-(e), and the reports required in Condition 7.1.10.

c. Compliance with Condition 7.1.5(f) is addressed by the records required in Condition 7.1.9(g) and the reports required in Condition 7.1.10.

d. Compliance with the CO, chlorine, hydrogen chloride and chloromethanes emission limitations of Condition 7.1.6 are addressed by the records and reports required in Conditions 7.1.9(b) and 7.1.10.

7.2 Treated Silica Process

7.2.1 Description

There are several treated metal oxides (TS) process lines. These processes begin with previously prepared fumed metal oxides so the reactions involve surface changes that do not result in CO, Cl_2 or HCl emissions, but there can be minor amounts of PM and other pollutants. The PM emissions are controlled by bagfilters. All process vents that emit to the atmosphere are routed through the bagfilters.

Note: This narrative description is for informational purposes only and is not enforceable.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
TS-XXX*	Holding Tanks Reactors and Mills and Other Miscellaneous Equipment Depending Upon Process	1987 1992 1996	Bagfilters (3)

* XXX is a specific number depending upon raw materials and product. This includes the “F”, “G” and “H” Units.

7.2.3 Applicable Provisions and Regulations

a. The “affected treated metal oxides process” for the purpose of these unit-specific conditions, is a process described in Conditions 7.2.1 and 7.2.2.

b. Each affected unit is subject to the opacity limits of 35 IAC 212 Subpart B (§212.123) and the PM limits of Subpart L (§212.321). The method to calculate allowable for Subpart L is listed in Attachment 2. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

c. The affected chemical manufacturing process is subject to 35 IAC 219 Subpart G, Use of Organic Material, which provides that the Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 219.302, 35 IAC 219.303, 219.304 and the following exception: If no odor nuisance exists the

limitation of 35 IAC 219 Subpart G shall apply only to photochemically reactive material [35 IAC 219.301].

7.2.4 Non-Applicability of Regulations of Concern

a. Non-applicability of regulations of concern are not set for the affected treated metal oxides process.

7.2.5 Control Requirements and Work Practices

a. The Permittee shall follow good operating practices for the bagfilters. This includes following the manufacturer's recommendations, periodic inspection (a minimum of annually), routine maintenance and prompt repair of defects. Prompt for purposes of this condition shall mean within 5 days unless additional time is needed to schedule an outage or order parts.

7.2.6 Production and Emission Limitations

a. In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected treated metal oxides process is subject to the following:

Process: TS 500/530	PWR (Lb/Hour)	Emissions (Lb/Hr)[a]	Emissions (Ton/Year)
	280		
VOM		0.15	0.66
PM		0.9	3.9
NH_3		2.1	9.2
Process: TS5XX/VRS)			
	251		
VOM		0.08	0.35
PM		0.84	3.7
Process: TS-720			
VOM (Formaldehyde)		0.42	1.86
PM		1.76	7.70

[a] Records are not required to verify each hour, only monthly.

These limits are based on the maximum rate.

Production of TS-720 by modified Units G and H shall not exceed 355 tons/month and 3,553 tons/year (Construction Permit 07040003).

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).

The above limitations were established in Construction and/or Operating Permits 72110408, 91120069, 96010073, 06110065 and 07040003, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.2.7 Testing Requirements

a. Testing requirements are not set for the affected treated metal oxides process. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.2.8 Monitoring Requirements

a. Each baghouse shall be equipped with a gauge to measure pressure differential across the filters in the baghouse.

b. Compliance Assurance Monitoring (CAM) Requirements

The affected treated silica process bagfilters are subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 3, Table 3B. pursuant to 40 CFR Part 64 as submitted in the Permittee’s CAM plan application. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment [40 CFR 64.7(a) and (b)].

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected treated metal oxides process to demonstrate compliance with Conditions 5.6.1, 7.2.3, 7.2.6 and 7.2.8 pursuant to Section 39.5(7)(b) of the Act:

a. Pressure drop across filter in baghouse (weekly, each unit);

b. Material processed per line (lb/mo);

c. Usage of other raw materials such as VOM and NH_3 (lb/mo); and

d. PM, VOM, and NH_3 emissions with calculations that can verify compliance with Condition 7.2.3(c) (lb/mo).

e. Records for Compliance Assurance Monitoring (CAM) Requirements

The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements in Condition 7.2.8(a), as required by 40 CFR 64.9(b)(1).

f. Records for good operating practices to verify compliance with Condition 7.2.5(a).

7.2.10 Reporting Requirements

a. Reporting of Deviations

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

i. Emissions of PM from the affected treated metal oxides process in excess of the limits specified in Condition 7.2.3(b) or (c) within 30 days of such occurrence.

ii. Emissions of VOM, PM or NH_3 from the affected treated metal oxides process in excess of the limits specified in Condition 7.2.6 within 30 days of such occurrence.

b. Reporting of Compliance Assurance Monitoring (CAM)

The Permittee shall submit monitoring reports to the Illinois EPA in accordance with Condition 8.6.1 and shall include, at a minimum, the information required under Condition 8.6.1 and the following information:

i. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken [40 CFR 64.6(c)(3) and 64.9(a)(2)(i)]; and

ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c)(3) and 64.9(a)(2)(ii)].

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

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

   The raw materials may be varied provided compliance with Conditions 7.2.3 and 7.2.6 are met.

7.2.12 Compliance Procedures

a. Compliance with Condition 7.2.3(b) is addressed by the requirements of Condition 7.2.5, the monitoring requirements in Condition 7.2.8, the records required in Condition 7.2.9(a), and the reports required in Condition 7.2.10(a)(i).

b. Compliance with Conditions 7.2.3(c) and 7.2.6 is addressed by the records and reports required in Conditions 7.2.9(d) and 7.2.10(a)(ii).

c. Compliance with Condition 7.2.5(a) is addressed by the records and reports required in Condition 7.2.9(f).

7.3 Advanced Material Development Center (AMDC) and Treatment Development Center (TDC)

7.3.1 Description

The AMDC is an experimental process for an alternative production method. Some organic chemicals are used that are controlled by a condenser. The TDC is a research facility intended to bridge the gap from laboratory work to commercial production.

Note: This narrative description is for informational purposes only and is not enforceable.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
AMDC-2	Mixing Tank, Reactor and Dryer, Particle Sizing Equipment and Miscellaneous Unvented Equipment	1998	Two Condensers (A and B)
TDC	Several Lines Including FDP Process and Jet Mill Process	1999	Thermal Oxidizer, Condenser, Scrubber, and Baghouses as Needed

7.3.3 Applicable Provisions and Regulations

a. The “affected development centers” for the purpose of these unit-specific conditions, are development centers described in Conditions 7.3.1 and 7.3.2.

b. Each affected unit is subject to the opacity limits of 35 IAC 212 Subpart B (§212.123) and the PM limits of Subpart L (§212.321). The latter rule is written out in Attachment 2. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

c. No person shall cause or allow the discharge of more than 8 lb/hr of organic material into the atmosphere from any emission unit except as provided by Section 218.302. If no odor nuisance exists the limitation shall apply only to photochemically reaction reactive material pursuant to the definition in 35 IAC 211.4690. Section 218.302 allows the emissions to exceed 8 lb/hr if they are controlled by the

condenser which condenses 85% of the uncontrolled organic material. [35 IAC 215.301 and 215.302]

7.3.4 Non-Applicability of Regulations of Concern

a. The affected treatment development center (TDC) processes are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected development centers do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.3.5 Control Requirements and Work Practices

a. The Permittee shall follow good operating practices for the condenser, baghouse, thermal oxidizer and scrubber. This includes following the manufacturer's recommendations, periodic inspection (a minimum of annually), routine maintenance and prompt repair of defects in order to meet the limits in Condition 7.3.6. Prompt for purposes of this condition shall mean within 5 days unless additional time is needed to schedule an outage or order parts.

7.3.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected development centers are subject to the following:

a. Production of fumed metal oxides from the TDC shall not exceed 145 lb/hr.

b. Emissions from the affected TDC unit shall not exceed the following limits:

	Emissions	
Pollutant	(lb/mo)	(ton/yr)
PM	500	2.8
VOM	50	0.3
HCl	25	0.13

The above limits contain revisions to previously issued Permit 96080109, as reflected in this Title V permit issued on April 27, 2001. Specifically, the construction permit included only hourly limits. The same values were converted to monthly and yearly values based on continuous operation. The justification is that such low emission rates do not support such frequent (hourly) recordkeeping. Compliance with the PM emission rate in Condition 7.3.3(b) must be met hourly [T1].

c. Emissions from the affected AMDC-2 unit shall not exceed the following limits:

Pollutant	Emissions (Tons/Month)	Emissions (Tons/Year)
VOM	3.0	36.0
PM	0.5	4.82

These limits are based on the maximum process rate and a minimum of 90% VOM reduction efficiency by the condensers.

The above limitations were established in Permit 97120002 and 07070013, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.3.7 Testing Requirements

a. Testing requirements are not set for the affected development centers. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.3.8 Monitoring Requirements

a. Compliance Assurance Monitoring (CAM) Requirements

The affected AMDC-2 condensers are subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 3, Table 3C. pursuant to 40 CFR Part 64 as submitted in the Permittee’s CAM plan application. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment [40 CFR 64.7(a) and (b)].

b. The outlet of the TDC baghouses shall be observed for visible emissions once per week when the TDC system is operating.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected development centers to demonstrate compliance with Conditions 5.6.1, 7.3.3, 7.3.5 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Compliance Assurance Monitoring (CAM) Requirements

The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements in Condition 7.1.8(a), as required by 40 CFR 64.9(b)(1).

b. Raw material usage (lb/mo* and ton/yr); and

* For the TDC unit only the monthly figure needs to be recorded but with production information sufficient to calculate compliance with Condition 7.3.6(a).

c. Visible emission observations of the TDC baghouses.

d. Emissions (lb/mo and ton/yr).

7.3.10 Reporting Requirements

a. Reporting of Deviations

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

i. Emissions of pollutants from the affected TDC or production in excess of the limits specified in Condition 7.3.6 within 30 days of such occurrence.

ii. Operation of the affected PM or VOM in excess of the limits specified in Condition 7.3.3(c) within 30 days of such occurrence.

iii. Opacity exceeding the limits in Condition 7.3.3(b) within 30 days of such occurrence.

b. Reporting of Compliance Assurance Monitoring (CAM)

The Permittee shall submit monitoring reports to the Illinois EPA in accordance with Condition 8.6.1 and shall include, at a minimum, the information required under Condition 8.6.1 and the following information:

i. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken [40 CFR 64.6(c)(3) and 64.9(a)(2)(i)]; and

ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c)(3) and 64.9(a)(2)(ii)].

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

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

Since these are experimental units the raw materials may be varied provided that the operating rate or emission limits of Condition 7.3.6 are not exceeded.

7.3.12 Compliance Procedures

a. Compliance with Condition 7.3.3(b) is addressed by the requirements of Condition 7.3.5 and the records and reports required in Conditions 7.3.9 and 7.3.10.

b. Compliance with Condition 7.3.3(c) is addressed by the requirements of Condition 7.3.5, the CAM requirements in Condition 7.3.8 and the records and reports required in Conditions 7.3.9 and 7.3.10.

c. Compliance with Condition 7.3.6 is addressed by the records and reports required in Conditions 7.3.9 and 7.3.10.

7.4 HCl Storage and Loading Area and Small Gasoline Storage Tanks

7.4.1 Description

The hydrogen chloride gas (HCl) produced by the methane injection process is absorbed into water to make 32% hydrochloric acid, stored and then shipped out. HCl is a HAP.

Note: This narrative description is for informational purposes only and is not enforceable.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Tanks 0044 and 0045	250,000 Gallon Fixed Roof Storage Tanks for HCl	1974	K-16 Scrubber
Loadout	Railcar and Tank Truck Loading	1974	K-15 Scrubber
Gasoline Storage Tank	For Plant Vehicles (300 gallons)		Submerged Loading Pipe

7.4.3 Applicable Provisions and Regulations

a. The “affected HCl storage tank” for the purpose of these unit-specific conditions, is a storage tank used to store hydrochloric acid and described in Conditions 7.4.1 and 7.4.2.

b. The “affected railcar and tank truck loading operation” for the purpose of these unit-specific conditions, is an operation for loading hydrochloric acid into tank trucks or railcars and described in Conditions 7.1.1 and 7.1.2.

c. The “affected gasoline storage tank” for the purpose of these unit-specific conditions, is a small gasoline tank used to store gasoline to fuel in-plant vehicles.

d. The transfer of hydrochloric acid into the storage tanks or loadout into railcars or tank trucks is subject to 35 IAC 212.321. This rule is written out in Attachment 2. HCl in aerosol form is considered to be PM.

e. The small gasoline storage tank is subject to 35 IAC 215.122(b) which requires the use of a submerged loading pipe.

7.4.4 Non-Applicability of Regulations of Concern

a. The affected HCl storage tanks and HCl loading area are not subject to 35 IAC 215, because the affected units do not

use a material that is a VOM and Part 215 addresses VOM emissions exclusively.

b. This permit is issued based on the affected HCl storage tanks and loading area not being subject to 40 CFR Part 63, Subpart CCC, because there is no pickling performed at this site although the HCl acid produced may be used for pickling at other sites by the purchasers of the acid.

c. The affected gasoline storage tank is not subject to 35 IAC 215.583 as pursuant to 215.583(b)(3 and 4) because the tank has a capacity of less than 575 gallons and the tank is not located in any of the counties specified that the requirements apply to.

d. The affected HCl storage tanks and HCl loading area are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected HCl storage tanks and HCl loading area do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

e. The affected gasoline storage tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected gasoline storage tanks use a passive control measure (submerged loading) that is not considered a control device because it acts to prevent the pollutants from forming.

7.4.5 Control Requirements and Work Practices

a. The Permittee shall follow good operating practices for the scrubbers and submerged loading pipe. This includes following the manufacturer’s recommendations, periodic inspection, routine maintenance and prompt repair of defects.

7.4.6 Production and Emission Limitations

a. Production and emission limitations are not set for the affected HCl storage tanks, HCl loading area and gasoline storage tanks.

7.4.7 Testing and Inspection Requirements

a. The two HCl storage tanks (Nos. 44 and 45) shall undergo an annual certification of adequacy of tank thickness. (See also Section 3.3 which requires a similar test on other tanks.)

b. The submerged loading pipe shall be inspected every other year to verify that it is functioning properly. If the pipe can only be inspected when the tank level is at a minimum

level of gasoline then the inspection can be delayed until the next shipment after the two year period is reached.

7.4.8 Monitoring Requirements

a. Each scrubber shall be equipped with a monitor to measure the scrubbant (water) flow rate.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected HCl storage tanks, HCl loading area and gasoline storage tanks to demonstrate compliance with Conditions 5.6.1, 7.4.3, 7.4.5, 7.4.7 and 7.4.8.1pursuant to Section 39.5(7)(b) of the Act:

a. Scrubbant flow rate (gal/min), once daily for each scrubber;

b. Records addressing use of good operating practices for the scrubbers and submerged loading pipe:

i. Records for periodic inspection of the scrubbers, tank wall thickness (annual certification) and submerged loading pipe and including the date and individual performing the inspection and the nature of the inspection; and

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

c. HCl emissions (lb/mo); and

d. VOM emissions (ton/year).

7.4.10 Reporting Requirements

a. Reporting of Deviations

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

i. Operation of the affected the HCl storage tanks and HCl loading area in excess of the limits specified in Condition 7.4.3(e) within 30 days of such occurrence.

ii. Failure to have annual tank wall thickness tests performed within 30 days of such occurrence.

iii. Loadout of acid when the scrubber is not operating within 30 days of such occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

a. Operational flexibility is not set for the affected the HCl storage tanks, HCl loading area and gasoline storage tank.

7.4.12 Compliance Procedures

a. Compliance with Condition 7.4.3(e) is addressed by the requirements of Condition 7.4.5, the inspection requirements in Condition 7.4.7(a), the monitoring requirements in Condition 7.4.8 and the records and reports required in Conditions 7.4.9 and 7.4.10.

b. Compliance with Condition 7.4.3(f) is addressed by the requirements of Condition 7.4.5, the inspection requirements in Condition 7.4.7(b) and the records and reports required in Conditions 7.4.9 and 7.4.10.

7.5 Jet Mill Process

7.5.1 Description

The product manufactured by the Permittee can have differing properties depending on particle size. The jet mill uses air pulses and classifiers to transform the raw product into desirable particle sizes. Baghouses control the PM emissions resulting from the processing and transfer of the material.

Note: This narrative description is for informational purposes only and is not enforceable.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Jet Mill	Classifier/Mill and Cyclone	2000	Baghouse BF-1
Jet Mill	Three Storage Tanks (1, 2, 3)	2000	Baghouses BF-2, 3 and 4

7.5.3 Applicable Provisions and Regulations

a. The “affected jet mill process” for the purpose of these unit-specific conditions, is a process for separating previously produced material into various sizes and then transferring into tanks for packaging; this process described in Conditions 7.5.1 and 7.5.2.

b. Each affected unit is subject to the opacity limits of 35 IAC 212 Subpart B (§212.123) and the PM limits of Subpart L (§212.321). The latter rule is written out in Attachment 2. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

7.5.4 Non-Applicability of Regulations of Concern

a. The affected jet mill processes are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected jet mill processes do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.5.5 Control Requirements and Work Practices

a. Product may not be transferred to the cyclone or any tank which has a baghouse that is not functioning properly.

Operation is not allowed during malfunction or breakdown of the control equipment.

b. The Permittee shall follow good operating practices for the baghouse. This includes following the manufacturer's recommendations, periodic inspection (a minimum of annually), routine maintenance and prompt repair of defects. Prompt for purposes of this condition shall mean within 5 days unless additional time is needed to schedule an outage or order parts.

7.5.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected jet mill processes are subject to the following:

Emissions from the affected jet mill process shall not exceed the following limits:

PM Emissions	
(Tons/Month)	(Tons/Year)
0.05	0.44

The above limitations were established in Permit 99080064 but the negligible emission condition of 0.1 lb/hr was converted to an equivalent ton/month rate [T1R].

7.5.7 Testing Requirements

a. Testing requirements are not set for the affected jet mill process. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.5.8 Monitoring Requirements

a. Each baghouse shall be equipped with a gauge to measure pressure differential across the filters in the baghouse.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected jet mill process to demonstrate compliance with Condition 5.6.1 and 7.5.3, pursuant to Section 39.5(7)(b) of the Act:

a. Pressure drop across filters in baghouse (weekly, each unit); and

b. Annual PM emissions.

7.5.10 Reporting Requirements

a. Reporting of Deviations

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

i. Emissions of PM from the affected jet mill process in excess of the limits specified in Condition 7.5.6 within 30 days of such occurrence.

ii. Operation of the affected jet mill process in excess of the limits specified in Condition 7.5.3 within 30 days of such occurrence.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

a. Operational flexibility is not set for the affected jet mill process.

7.5.12 Compliance Procedures

a. Compliance with Condition 7.5.3(b) is addressed by the monitoring requirements in Condition 7.5.8 and the records and reports required in Conditions 7.5.9 and 7.5.10.

b. Compliance with Condition 7.5.6 is addressed by the records and reports required in Conditions 7.5.9 and 7.5.10.

7.6 Bag Emptying Process D Unit Bulk Loadout

7.6.1 Description

Fumed metal oxides can be received in bags at the Permittee, and are manually opened over hoppers with a vacuum system. The material from the opened bag drops into a vibrating hopper and then flows either through a cyclone to the DM 5 tank or through another cyclone to the pourback Tank F71 for future processing. The cyclones are not used as control equipment, rather as part of the material handling system. A baghouse controls the PM emissions resulting from the processing and transfer of material.

Fumed metal oxides can be loaded into railcar or truck trailers. The loadout is a closed system in that the fumed metal oxide product is loaded into one hatch of the rail car or truck trailer while another hatch is used to remove dust laden air to a baghouse. A baghouse controls the PM emissions resulting from the transfer of material

Note: This narrative description is for informational purposes only and is not enforceable.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Bag Emptying Process	Bag Emptying Process, Cyclones, Tanks	1993	Baghouse F7K
D Unit Bulk Loading	Railcar and Truck Loading of Fumed Metal Oxides	1992[a]	Baghouse

[a] Originally constructed in 1970 but modified by a 1992 construction permit which makes it classified as a new unit for rule applicability.

7.6.3 Applicable Provisions and Regulations

a. The “affected bag emptying process” for the purpose of these unit-specific conditions, is a process for receiving fumed metal oxides in bags and transferring the material into tanks for further processing and described in Conditions 7.6.1 and 7.6.2.

b. The “affected D Unit bulk loading operation”, for the purpose of these unit-specific conditions, is an operation for loading fumed metal oxides into rail car or truck trailers and described in Conditions 7.6.1 and 7.6.2.

c. The affected bag emptying process and bulk loading operation are subject to the opacity limits of 35 IAC 212 Subpart B (§212.123) and the PM limits of Subpart L (§212.321). The latter rule is written out in Attachment 2. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

7.6.4 Non-Applicability of Regulations of Concern

a. The affected bag emptying process and bulk loading operation are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected bag slitter process and bulk loading operation do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.6.5 Control Requirements and Work Practices

a. The Permittee shall follow good operating practices for the baghouses. This includes following the manufacturer's recommendations, periodic inspection (a minimum of annually), routine maintenance and prompt repair of defects. Prompt for purposes of this condition shall mean within 5 days unless additional time is needed to schedule an outage or order parts.

7.6.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected bag emptying process is subject to the following:

a. Emissions from the affected bag emptying process shall not exceed the following limits:

PM Emissions (Tons/Month)	PM Emissions (Tons/Year)
0.18	2.19

The hourly emission limitation was converted to an equivalent tons/month rate.

b. Emissions from the affected D Unit bulk loading process shall not exceed the following limits:

PM Emissions (Tons/Month)	PM Emissions (Tons/Year)
0.9	10.6

7.6.7 Testing Requirements

a. Testing requirements are not set for the affected bag emptying process and bulk loading operation. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.6.8 Monitoring Requirements

a. The baghouses for the bag emptying process and the bulk loading operations shall each be equipped with a gauge to measure pressure differential across the filters in the baghouses.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected bag emptying process and bulk loading operation to demonstrate compliance with Condition 5.6.1, 7.6.3 and 7.6.8, pursuant to Section 39.5(7)(b) of the Act:

a. Pressure drop across filter in baghouses (weekly, each unit).

b. PM emissions (tons/month).

7.6.10 Reporting Requirements

a. Reporting of Deviations

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

i. Emissions of PM from the affected bag emptying process or the bulk loading operation in excess of the limits specified in Condition 7.6.6 within 30 days of such occurrence.

ii. Operation of the affected bag emptying process or the bulk loading operation in excess of the limits specified in Condition 7.6.3 within 30 days of such occurrence.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

a. Operational flexibility is not set for the affected bag emptying process and bulk loading operation.

7.6.12 Compliance Procedures

a. Compliance with Condition 7.6.3(c) is addressed by the monitoring requirements in Condition 7.6.8 and the records and reports required in Conditions 7.6.9 and 7.6.10.

b. Compliance with Condition 7.6.6 is addressed by the records and reports required in Conditions 7.6.9 and 7.6.10.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

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

This permit shield does not extend to applicable requirements which are promulgated after _____Error! Bookmark not defined. (the date of issuance of the proposed 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 if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. 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 Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

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

8.6.2 Test Notifications

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

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

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

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

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

e. The test method(s) that 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. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.

b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

i. Illinois EPA - Air Compliance Unit

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

ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (MC 39)
P.O. Box 19276
Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

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

iv. USEPA Region 5 - Air Branch

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

c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

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

8.7 Title I Conditions

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.

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

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, pursuant to Section 39.5(7)(j) and (p) of the Act, 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, or 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 this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [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 there under.

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 as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance or applicable requirements; 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 regulated 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. At 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 including any logs, plans, procedures, or instructions required to be kept 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, Air Quality Planning 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 Unit, 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 and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 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 [Section 39.5(7)(k) of the Act]:

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.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

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 [Section 39.5(7)(k)(iv) of the Act].

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, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, 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 that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

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

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 and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) 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. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and 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

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(l) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

10.0 ATTACHMENTS

Attachment 1 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].

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

ii. 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,

A. 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

B. 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

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

Metric P Mg/hr	E kg/hr	English P T/hr	E 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

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

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

ii. 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,

A. 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

B. 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

iii. 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

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

Table 3A PSEU Designation:	“A”, “B”, “D”, “E” Units
Significant Emission Unit Section:	7.1
Pollutant:	PM

Indicators:	#1: Differential pressure gauge (one on each of the four bagfilters)	#2: Visible Emissions Check
GENERAL CRITERIA		
THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Pressure drop	Visible emissions
THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	0-10 inches of water column	No visible emissions
QUALITY IMPROVEMENT PLAN (QIP) THRESHOLD LEVELS:	If more than 9 excursions in a six month reporting period	If more than 9 excursions in a six month reporting period
PERFORMANCE CRITERIA		
THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA:	Pressure differential across the inlet and outlet of the bagfilter	No visible emissions at stack outlet per modified Method 22
VERIFICATION PROCEDURES TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING:	N/A	N/A
QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES THAT ENSURE THE VALIDITY OF THE DATA:	Calibrate annually per manufacturer’s recommendations	Training of observer on Method 22
THE MONITORING FREQUENCY:	At least once daily when the bagfilter is operating	Once daily when weather permits and bagfilter is operating
THE DATA COLLECTION PROCEDURES THAT WILL BE USED:	Data is collected by operator and entered into operator’s logs	Data is collected by operator and entered into operator’s logs
THE DATA AVERAGING PERIOD FOR DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	No average; one reading per day	Average of the readings during the one observation per day

Table 3B PSEU Designation:	“F”, “G”, and “H” Units
Significant Emission Unit Section:	7.2
Pollutant:	PM

Indicators:	#1: Differential pressure gauge (one on each of the four bagfilters)	#2: Visible Emissions Check
GENERAL CRITERIA		
THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Pressure drop	Visible emissions
THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	0-5 inches of water column	No visible emissions
QUALITY IMPROVEMENT PLAN (QIP) THRESHOLD LEVELS:	If more than 9 excursions in a six month reporting period	If more than 9 excursions in a six month reporting period
PERFORMANCE CRITERIA		
THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA:	Pressure differential across the inlet and outlet of the bagfilter	No visible emissions at stack outlet per modified Method 22
VERIFICATION PROCEDURES TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING:	N/A	N/A
QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES THAT ENSURE THE VALIDITY OF THE DATA:	Calibrate annually per manufacturer’s recommendations	Training of observer on Method 22
THE MONITORING FREQUENCY:	At least once daily when the bagfilter is operating	Once daily when weather permits and bagfilter is operating
THE DATA COLLECTION PROCEDURES THAT WILL BE USED:	Data is collected by operator and entered into operator’s logs	Data is collected by operator and entered into operator’s logs
THE DATA AVERAGING PERIOD FOR DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	No average; one reading per day	Average of the readings during the one observation per day

Table 3C PSEU Designation:	AMDC-2
Significant Emission Unit Section:	7.3
Pollutant:	VOM

Indicators:	#1: Inlet coolant temperature	#2:
GENERAL CRITERIA		
THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Coolant temperature at the inlet of the condenser	
THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	Less than 40°C	
QUALITY IMPROVEMENT PLAN (QIP) THRESHOLD LEVELS:	Nine excursions in a six-month reporting period	
PERFORMANCE CRITERIA		
THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA:	Temperature indicator is in the coolant inlet	
VERIFICATION PROCEDURES TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING:	N/A	
QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES THAT ENSURE THE VALIDITY OF THE DATA:	Calibrate as required per manufacturer’s recommendations	
THE MONITORING FREQUENCY:	Continuous recording when the condenser is operating	
THE DATA COLLECTION PROCEDURES THAT WILL BE USED:	Data is collected by a computerized system	
THE DATA AVERAGING PERIOD FOR DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	24-hour average	

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application for a Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf
www.epa.state.il.us/air/permits/197-fee.pdf

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