217/782-2113

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

PERMITTEE

Honeywell International, Inc.
Attn: Rory O'Kane, Plant Manager
US 45 North
Post Office Box 430
Metropolis, Illinois 62960

Application No.: 96030014 I.D. No.: 127854AAD
Applicant's Designation: IndusInorgChems Date Received: March 4, 1996
Operation of: Industrial Inorganic Chemical Manufacturing
Date Issued: July 14, 2003 Expiration Date[2]: July 14, 2008
Source Location: US 45 North, P.O. Box 430, Metropolis, Massac County
Responsible Official: Rory O'Kane, Plant Manager

This permit is hereby granted to the above-designated Permittee to operate a facility classified within the group Industrial Inorganic Chemicals according to primary industrial classification categories, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: November 26, 2003
Revision Date Issued: April 13, 2006
Purpose of Revision: Administrative Amendment

This administrative amendment consists of corrections to typographical errors, corrections to emission factors and emission calculations and removal of emission units that are no longer in operation. Because the changes in the permit were only administrative, no formal public notice was issued.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supercedes those terms and conditions of the permit for which the conflict exists. The previous permit issued July 14,2003 is incorporated herein by reference. Please attach a copy of this amendment and the following revised pages to the front of the most recently issued entire permit.

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

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

DES:SIS:psj

cc: Illinois EPA, FOS Region 3
CES
Lotus Notes

[1] This permit contains terms and conditions that address the applicability, and, if determined applicable, substantive requirements of Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. The authority for these provisions is found in these regulations and in the general authority provided to the Illinois EPA by Section 9.1 of the Environmental Protection Act (Act) and Sections 39(a) and 39.5(7)(a) of the Act, which authorize the Illinois EPA to include conditions in permits that are required to accomplish the purposes of the Act. Any such terms and conditions are specifically identified within this permit as T1 conditions. These terms and conditions continue in effect as provided by Condition 8.7 of this permit, notwithstanding the expiration date specified above, as their authority derives from Title I, as well as from Title V of the CAA.

TABLE OF CONTENTS

1.0 SOURCE IDENTIFICATION

1.1 Source

Honeywell International, Inc.
US 45 North, Post Office Box 430
Metropolis, Illinois 62960
618/524 2111

I.D. No.: 127854AAD
Standard Industrial Classification: 2819, Industrial Inorganic Chemicals

1.2 Owner/Parent Company

Honeywell International, Inc.
US 45 North, Post Office Box 430
Metropolis, Illinois 62960
618/524 2111

1.3 Operator

Honeywell International, Inc.
US 45 North, Post Office Box 430
Metropolis, Illinois 62960
618 524 2111

Rory O'Kane, Plant Manager
618/524-6220

1.4 General Source Description

Honeywell International, Inc. is located at US 45 North, Post Office Box 430, Metropolis. The source is a nuclear and fluorine specialties plant constructed in 1957-58. The plant is involved in manufacturing of Uranium hexafluoride and other fluorides, and is a major source for sulfur dioxide emissions. The plant is licensed to operate by Nuclear Regulatory Commission (NRC) and therefore is not subject to National Emissions Standard for Hazardous Air Pollutants (NESHAP) for radionuclides (40 CFR 61, Subpart I).

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
cfm	Cubic feet per minute
CFR	Code of Federal Regulations
dscfm	Dry standard cubic feet per minute
ERMS	Emissions Reduction Market System
ft^3	Cubic feet
gal	gallon
gpm	Gallon per minute
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
kg	kilogram
kW	kilowatts
KOH	Potassium hydroxide
LAER	Lowest Achievable Emission Rate
lb	pound
MACT	Maximum Achievable Control Technology
Mft^3	Million Cubic feet
mmBtu	Million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
mo	Month
NRC	Nuclear Regulatory Commission
mrem	milliroentgen equivalent man
MW	Megawatt
m^2	Square meter
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
T	ton

scfm	Standard Cubic Feet per minute
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
USEPA	United States Environmental Protection Agency
VMT	Vehicle miles traveled
VOM	Volatile Organic Material
wt.	weight
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

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

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

Sampling Plant
Sampling Plant Vacuum Cleaner
Fuel Oil Tank
Anode Preparation

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:

Sodium Removal Process
Shot Blaster
Sulfur Hexafluoride Distillation Unit
Cobalt Hydroxide Processing Station

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

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

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

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents,

surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

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

3.2 Compliance with Applicable Requirements

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

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

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

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

3.3 Addition of Insignificant Activities

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

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

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 01	Process Emission Unit 1	Pre 1973	Dust Collectors
Unit 02	Fluorine Plant: 5 kA, 6kA, 15 kA Cells (Includes Additional 15 kA Cells and Melt Reactor)	Pre-1972	Hydrogen Gas Scrubbers, Fluorine Scrubbers, Maintenance Booth Scrubber, Melt Scrubber
Unit 03	Liquid Fluorine and Antimony Pentafluoride Units	Not Provided	Liquid Fluorine Purge Gas Scrubber KOH Scrubber
Unit 04	Sulfur Hexafluoride Packaging	1980	Shot Blaster Dust Collector Paint Booth Filter/Exhauster
Unit 05	Iodine Pentafluoride Unit	1972	KOH Spray Tower (P-190), Packed Tower Scrubber (T-16), Process Fume Scrubber (T-14)
Unit 06	Ponds Mud Calciner with Dryer (Max Heat Input 3 mmBtu/hr)	1972	Secondary Baghouse (F182) and Baghouse System (F181)
Unit 07	Calcium Fluoride Cage - Mill Flash Dryer (Max Heat Input 4.0 mmBtu/hr)	1981	Dust Collector
Unit 08	Lime Silo (Acid Neutralization Base Regeneration)	1974	Dust Collector
Unit 09	Sandblasting Recovery	1983	Dust Collector and Blower
Unit 10	Waste Gas Incinerator Manufacturer	1976	None
Unit 11	Boilers 1, 2, and 3 Natural Gas-Fired Boilers (Distillate Oil Backup) Maximum Heat Input Capacity: 18 mmBtu/Hr	1972	None
Unit 12	Tank Farm: Tank 1 – 18,000 Gal, Tanks 2 and 3 – 20,000 Gal	1972	Scrubber
Unit 13	Fugitive Emissions from Exhaust Fans	---	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of HAPs and Sulfur Dioxide.

5.2 Applicable Regulations

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

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

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

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

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 Ozone Depleting Substances

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

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

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

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

5.2.5 Risk Management Plan

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

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

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

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

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

5.2.7 Episode Action Plan

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

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

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

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

i. Illinois EPA, Compliance Section; and

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

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

5.3 Non-Applicability of Regulations of Concern

a. This facility is not subject to 40 CFR 61, Subpart I, National Emission Standards for Radionuclide Emissions from Federal Facilities other Than Nuclear Regulatory Commission Licensees and not covered by Subpart H; this facility is licensed by the NRC.

b. This permit is issued based on the source not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the source does not have a pollutant-specific emissions unit that uses an add-on control device to achieve compliance with an emission limitation or standard.

5.4 Source-Wide Operational and Production Limits and Work Practices

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

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	25.96
Sulfur Dioxide (SO_2)	421.63
Particulate Matter (PM)	33.69
Nitrogen Oxides (NO_x)	53.93
HAP, not included in VOM or PM	20.33
Total	555.54

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

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

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

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

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

5.6.2 Records for HAP Emissions

Total annual emissions of each individual HAP and of total HAPs on a calendar year basis for the applicable emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.3 Records for Operating Scenarios

N/A

5.6.4 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

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

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

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

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

5.7.2 Annual Emissions Report

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

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

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

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 01: Process Emission Unit 1
Control: Dust Collectors

7.1.1 Description

Uranium Ore Preparation Unit – Ore is prepared for green salt production.

Uranium Tetrafluoride Unit (Green Salt UF_4) – Uranium ore concentrates are converted to Uranium Tetrafluoride.

Uranium Hexafluoride Unit – UF_4 is fluorinated to form UF_6

Uranium Recovery – Recovery of Uranium from Process Liquors

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
01	Uranium Ore Preparation Unit Including Dryer (6.5 mmBtu/Hr) and Calciner (8 mmBtu/hr)	Modified: 10/04/02	Primary and Secondary Dry Oxide Dust Collectors, Primary and Secondary Wet Oxide Dust Collectors, Drum Dumper Primary and Secondary Dust Collectors, Ore Preparation Dust Collectors, decontamination Area Dust Collectors, and 2 Secondary Dust Collectors Rebagging.
	Uranium TetraFluoride Unit Including 4 Process Heaters (3 mmBtu/Hr each)	1957	Dust Collectors A and B HF Scrubbers UF_4 Vacuum Cleaner Green Salt Dust Collector Scrubbers

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
01 (Cont.)	Uranium Hexafluoride Unit with 3 Process Heaters (Maximum 3 mmBtu/Hr each)	Modified: 2002	Ash Vacuum Cleaner and Dust Collector 3 Blowers 3 Fluorinator Blowers 2 Primary, 2 Secondary and 2 Tertiary Scrubbers
	Uranium Recovery	Modified: 3/1992	Dust Collector

7.1.3 Applicability Provisions and Applicable Regulations

a. The "affected process emission unit 1" for the purpose of these unit-specific conditions, is the unit described in 7.1.1 and 7.1.2.

b. The affected process emission unit 1 is subject to the emission limits identified in Condition 5.2.2.

c. The affected process emission unit 1 (specifically Uranium Ore Preparation Unit Including Dryer and the Uranium TetraFluoride Unit Including 4 Process Heaters) is subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322. (See also Attachment 1) [35 IAC 212.322(a)]

d. The affected process emission unit 1 (specifically Uranium Hexafluoride Unit with 3 Process Heaters and Uranium Recovery) is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all

other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 2) [35 IAC 212.321(a)]

7.1.4 Non-Applicability of Regulations of Concern

a. The fuel combustion sources of the affected process emission unit 1 are not subject to 35 IAC 216.121, Carbon Monoxide Emissions from Fuel Combustion Emission Sources since the units are less than 2.9 MW (10 mmBtu/hr); the rule requires greater than 2.9 MW (10 mmBtu/hr) for applicability.

b. The fuel combustion sources of the affected process emission unit 1 are not subject to 35 IAC 217.141, Nitrous Oxide Emissions from Existing Fuel Combustion Emission Sources since the sources are both less than 73.2 MW(250 mmBtu/hr); the rule requires greater than 73.2 MW(250 mmBtu/hr) for applicability.

c. There are no applicable requirements for particulate matter or sulfur dioxide for affected natural gas combustion units of the affected process emission Unit 1.

7.1.5 Operational and Production Limits and Work Practices

None

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected process emission unit 1 is subject to the following:

Equipment	Particulate Emissions (Lb/Hr)	(T/Yr)
Ore Preparation	0.05	0.22

The above limitations were established in Permit 72100235.

Equipment	Particulate Emissions (Lb/Hr)	(T/Yr)
Uranium Hexafluoride: Ash Vacuum Cleaner	0.1	0.44

The above limitations were established in Permit 72100267.

7.1.7 Testing Requirements

Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act and 35 IAC 212.107, for both fugitive and non-fugitive particulate matter emissions, a determination as to presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This test method shall be used to determine compliance with 35 IAC 212.123 [35 IAC 212.107].

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected process emission unit 1 to demonstrate compliance with condition 5.5.1 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of health physics sampling for each dust collector exhaust (as required under the plant's NRC license).

b. i. Production Rate of UF6*, ton/mo

ii. Operating hours per month for Uranium Hexafluoride Unit

iii. Operating hours per month for Uranium Ore Preparation Unit

iv. Operating hours per month for Uranium Tetrafluoride Unit

v. Throughput rate of U-Recovery drum dumper, ton/mo*

vi. Operating hours per month for Uranium Recovery.

* Expressed in terms of Uranium content only.

c. Total natural gas usage for affected fuel combustion units associated with the affected process emission unit 1 (ft^3/month).

d. Annual aggregate NO_x, PM, SO_2, VOM emissions from the affected process emission unit 1, based on fuel

consumption, the applicable emission factors and formulas, with supporting calculations.

7.1.10 Reporting Requirements

The Permittee shall notify the Illinois EPA Compliance Section of noncompliance of the affected process emission unit 1 with the permit requirements within 6 months of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

Compliance of the affected process emission unit 01 with conditions 5.5.1, 7.1.3(b) and 7.1.6 shall be based on the recordkeeping requirements of 7.1.9, and by the use of the emission factors and formula listed below:

a. Particulate emissions shall be calculated with the following:

Emissions are derived by use of the following emission factors from stack tests or from emission monitoring (as indicated in the Title V permit application:

Process	Equipment	Emission Factor	Stack ID
Uranium Ore Preparation Unit	Ore Preparation Dryer, Ore Preparation Calciner, Mixers	Particulate = 1.03×10^{-3} lb/ton	1-8 1-9 1-1
	Calciner Elevator, Ore Blender, Mill Feed Elevator, Scalping Screen, Air Classifier, Concentrates Elevator, Hopper, Crusher, Prepared Feed Hopper & Elevator, Reductor Feed Hopper	Particulate = 1.85×10^{-5} lb/ton	1-2

Process	Equipment	Emission Factor	Stack ID
	Scrap Recovery Drum Dumper, Dry Scrap Recovery Screen, Decon Area Work Tables, Bead Blaster	Particulate = 6.07 X 10^{-5} lb/ton	1-11
	Vacuum Outlets in Ore Preparation	Particulate = 3.80 X 10^{-5} lb/ton	1-4
	Raw Conc. Calciner Feed Hopper, Raw Conc. Drum Dumper Elevator, Drum Dumper, Ore Concentrates	Uranium Particulates = 7.36 X 10^{-4} lb/ton	1-3 1-54
Uranium Tetrafluoride Unit (Green Salt UF_4)	UF_4 Vacuum Cleaner	Uranium Particulates (HAPs) = 6.91 X 10^{-6} lb/ton	1-7
	NH3 Dissociater Vent	Uranium Particulates (HAPs) = 5.90 X 10^{-4} lb/ton	1-45
	"A" Reductor Blower	Uranium Particulates (HAPs) = 4.33 X 10^{-5} lb/ton	1-15
	"B" Reductor Blower	Uranium Particulates (HAPs) = 6.57 X 10^{-5} lb/ton	1-16
	"A" Top Hydrofluorinatar Blower	Uranium Particulates (HAPs) = 1.53 X 10^{-4} lb/ton	1-17
	"A" Bottom Hydrofluorinatar Blower	Uranium Particulates (HAPs) = 4.73 X 10^{-6} lb/ton	1-18
	"B" Top Hydroflourinator Blower	Uranium Particulates (HAPs) = 2.02 X 10^{-4} lb/ton	1-19
	"B" Bottom Hydrofluorinator Blower	Uranium Particulates (HAPs) = 1.60 X 10^{-5} lb/ton	1-20
	"A" Secondary Scrubber	HF (HAP) = 1.76 X 10^{-3} lb/ton	1-58

Process	Equipment	Emission Factor	Stack ID
	"B" Secondary Scrubber	HF (HAP) = 1.76×10^{-3} lb/ton	1-59
	"A" Primary Scrubber	HF (HAP) = 8.96×10^{-3} lb/ton	1-23
	"B" Primary Scrubber	HF (HAP) = 8.96×10^{-3} lb/ton	1-24
Uranium Hexafluoride Unit	Ash Vacuum Cleaner and Dust Collector	Particulates = 1.93×10^{-2} lb/ton	1-12
	"A" Fluorination Coke Box	Particulates = 3.19×10^{-2} lb/ton	1-13
	"B" Fluorination Coke Box	Particulates = 3.15×10^{-2} lb/ton	1-14
	"A" Fluorination Coke Box	HF (HAP) = 9.98×10^{-4} lb/ton	1-13
	"B" Fluorination Coke Box	HF (HAP) = 9.98×10^{-4} lb/ton	1-14
	"A" Fluorinator Blower	Particulates = 1.03×10^{-3} lb/ton	1-21
	"B" Fluorinator Blower	Particulates = 5.53×10^{-4} lb/ton	1-22
	"C" Fluorinator Blower	Particulates = 1.54×10^{-3} lb/ton	1-47
Uranium Recovery	Uranium Recovery Dust Collector	Particulate = 3.96×10^{-3} lb/ton	3-2

b. HAP and Particulate emissions shall be calculated with the use of the above emission factors (as indicated in the Title V permit application):

For the Uranium Ore Preparation, Uranium Tetrafluoride and Uranium Hexafluoride Units:

A = Production rate of UF-6, ton/mo x emission factor, lb/ton ÷ operating hours per month of corresponding Unit

B = Sum of 12 monthly "UF6 Production rate" values x emission factor, lb/ton ÷ 2000 lb/ton

Where:

A = Particulate or HAP emissions, lb/hr

B = Particulate or HAP emissions, Ton/yr

For the Uranium Recovery Unit:

C = U-Recovery process throughput, ton/mo x emission factor, lb/ton ÷ operating hours per month

D = Sum of 12 monthly "U-Recovery process throughput" values x emission factor, lb/ton ÷ 2000 lb ton

Where:

C = Particulate emissions, lb/hr

D = Particulate emissions, ton/yr

c. To determine compliance with condition 5.5.1, Emissions from the fuel combustion units burning natural gas shall be calculated based on the following emission factors:

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

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (< 100 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Supplement D, July 1998. VOM emission factor based on TOC factor corrected for 52% methane contribution.

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

The applicable fuel combustion units are:

Process	Unit
Ore Prep	Ore Prep Calciner
	Ore Dryer
Uranium	B Top Hydrofluorinator

Process	Unit
Tetrafluoride	B Bottom Hydrofluorinator
	A Reductor
	B Reductor
Uranium	A Fluorinator
Hexafluoride	B Fluorinator
	C Fluorinator

7.2 Unit 02: Fluorine Plant
Control: Hydrogen Gas Scrubbers, Fluorine Scrubbers, Maintenance Booth Scrubber, Melt Scrubber

7.2.1 Description

Fluorine Plant:

F_2 gas is produced electrochemically. This unit is a source of Hydrogen Fluoride (HAP) emissions; Hydrogen Fluoride is not reported as a VOM.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 02: Fluorine Plant	5 kA Cell ("G" Cell)	1972	Hydrogen Scrubber and Fluorine Scrubber
	6 ka Cell ("F" Cell)	1972	Hydrogen Scrubber and Fluorine Scrubber
	15 kA Cell ("A & B" Cell)	1972	Hydrogen Scrubber, Fluorine Scrubber
	Five Fluorine Cell Maintenance Booths	1994	Hydrogen Gas Scrubber, Fluorine Gas Scrubber
	Melt Reactor	1994	Melt Scrubber
	5 kA Cell (2nd Unit) ("H" Cell)	1972	Hydrogen Scrubber and Fluorine Scrubber
	15 kA Cell (2nd Unit) ("C, D & E" Cell")	1972	Hydrogen Scrubber and Fluorine Scrubber

7.2.3 Applicability Provisions and Applicable Regulations

a. The "affected Fluorine Plant" for the purpose of these unit-specific conditions, is the unit described in 7.2.1 and 7.2.2.

7.2.4 Non-Applicability of Regulations of Concern

None

7.2.5 Operational and Production Limits and Work Practices

The Permittee shall not operate the fluorine cells or the hydrogen fluoride vaporizers in the event of malfunction or breakdown of the scrubbers.

7.2.6 Emission Limitations

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

Emission limits for Melt Reactor, 5 kA Cell (2nd unit) and 15 kA cell (2nd unit) are not set, as potential to emit in the absence of permit limit is less than the significant and major source thresholds for these pollutants pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or the federal rules for the Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

7.2.7 Testing Requirements

Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act and 35 IAC 212.107, for both fugitive and non-fugitive particulate matter emissions, a determination as to presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This test method shall be used to determine compliance with 35 IAC 212.123 [35 IAC 212.107].

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the Fluorine Plant to demonstrate compliance with condition 5.5.1 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. Raw material usage, lb/mo; and

b. Hours of operation for cell maintenance booths, hr/yr.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Flourine Plant with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.2.12 Compliance Procedures

Compliance of the affected Fluorine Plant with condition 5.5.1 shall be determined by the recordkeeping requirements of 7.2.9 and the following formulas and emission factors:

a. HAP emissions of Hydrogen Fluoride shall be calculated with the use of the following emission factors (as indicated in the Title V permit application):

	Emission factor (lb/lb Material Used)	
F2 Cells:	H2 Scrubber	F2 Scrubber
5 kA Cells	0.00020	0.00071
5 kA Cell (2nd unit)	0.00020	0.00071
6 kA Cells	0.00045	0.00161
15 kA Cells	0.00018	0.00066
Additional 15 kA Cell	0.00067	0.00067

A = Raw Material Usage, lb/mo X emission factor, lb/lb

B = (Sum of 12 monthly “A” values) X ton/2000 lb

Where:

A = HF emissions, lb/mo
B = HF emissions, Ton/yr

b. For Melt Reactor:

C = (Raw Materials Usage, lb/mo – Product, lb/mo) X (1 - Control Efficiency/100)

D = (Sum of 12 monthly “C” values) ÷ 2000

Where:

C = HF (HAPs) emissions, lb/mo
D = HF (HAPs) emissions, Ton/yr

* Control Efficiency = 99 % (per Title V application)

c. For Cell Maintenance Booths

E = 0.15 lb/hr* (engineering estimate; limit in Permit 72100228)

F = [E x hours or operation per year] ÷ 2000

Where:

E = HF (HAPs) emissions, lb/hr

F = HF (HAPs) emissions, ton/yr

* As provided in Title V application.

7.3 Unit 03: Liquid Fluorine and Antimony Pentafluoride Units
Control: Scrubbers

7.3.1 Description

Liquid Fluorine Unit and SbF_5:

Gaseous Fluorine is liquefied thru condensation.

Antimony Pentafluoride Unit:

Fluorination of SbF_3

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 03	Liquid Fluorine Unit	Modified: 1999	Liquid Fluorine Purge Gas Scrubber
	Antimony Pentafluoride Production Unit	Modified: 1999	KOH Scrubber

7.3.3 Applicability Provisions and Applicable Regulations

The "affected Process Emission Unit 2" for the purpose of these unit-specific conditions, is the unit described in 7.3.1 and 7.3.2.

7.3.4 Non-Applicability of Regulations of Concern

None

7.3.5 Operational and Production Limits and Work Practices

a. The Permittee shall replace the Potassium Hydroxide KOH scrub solution if KOH concentration in the scrub solution falls below 3.0 percent. If KOH solution concentration falls below 1.0 percent the Permittee shall shut down the emission sources immediately. The emission sources shall not be started until the scrub solution is replaced. [T1]

b. The Permittee shall maintain the scrub solution flow rate between 30.0 to 60.0 gallons per minute. If the scrub solution flow rate falls below 30.0 gpm the Permittee shall return the flow rate to the normal range as early as is feasible. If the scrub solution flow rate falls below 25.0 gpm the Permittee shall

shut down the unit until the flow problem is located and corrected. [T1]

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected Process Emission Unit 02 is subject to the following:

This permit is issued based on negligible emissions of particulate matter from the existing antimony pentafluoride operating unit controlled by a new scrubber. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year. [T1]

Emissions of particulate matter from the liquid fluorine operating unit controlled by an existing scrubber shall not exceed 0.14 lb/hour and 0.6 tons/year. [T1]

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

The above limitations was established in permit 99100011, pursuant to Title I of the Clean Air Act, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and 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 these rules. [T1]

7.3.7 Testing Requirements

Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act and 35 IAC 212.107, for both fugitive and non-fugitive particulate matter emissions, a determination as to presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This test method shall be used to determine compliance with 35 IAC 212.123 [35 IAC 212.107].

7.3.8 Monitoring Requirements

a. The Permittee shall monitor and record the following:

i. pH or concentration of KOH in the scrub solution.

ii. Scrub solution flow rate.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected process emission unit 2 to demonstrate compliance with condition 5.5.1 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

a. Amount of SbF5 Produced, lb/mo

b. Operating hours

c. Amount of liquid F_2 produced, lb/mo.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Process Emission Unit 2 with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.3.12 Compliance Procedures

Compliance of the affected Process Emission Unit 2 with 5.5.1 shall be determined by the recordkeeping requirements of 7.3.9 and the following formulas and emission factors:

SbF_5 Produced

A = [Emission Factor* X Amount of SbF_5 Produced, lb/mo]

B = [Sum of 12 monthly "A" values] ÷ 2000

Where:

A = Particulate or HAP Emissions, lb/mo

B = Particulate or HAP Emissions, ton/yr

* As provided in the Title V application:

Particulate = 4.86 X 10^{-4} lb/lb of SbF_5 Produced

HF = 1.02 X 10^{-3} lb/lb of SbF_5 Produced

Liquid F_2 Produced

A = [Emission Factor** X Amount of Liquid F_2 Produced, lb/mo]

B = [Sum of 12 monthly "A" values] ÷ 2000

Where:

A = HAP emissions, lb/mo

B = HAP emissions, ton/yr

** HAP = 5.5 X 10^{-4} lb/lb of Liquid F_2 Produced

7.4 Unit 04: Sulfur Hexafluoride Packaging
Control: Dust Collector, Filter/Exhauster

7.4.1 Description

Used Sulfur Hexafluoride cylinders are emptied, shot blasted, painted and filled.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 04	Sulfur Hexafluoride Packaging	1980	Shot Blaster Dust Collector Paint Booth Filter/Exhauster

7.4.3 Applicability Provisions and Applicable Regulations

a. The "affected Sulfur Hexafluoride Packaging Unit" for the purpose of these unit-specific conditions, is the unit described in 7.4.1 and 7.4.2.

b. The affected Sulfur Hexafluoride Packaging Unit is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 2) [35 IAC 212.321(a)]

c. The top coatings operations of the affected sulfur hexafluoride packaging at the source are subject to 35 IAC 215.204(j)(2), Miscellaneous Metal Part and Products: Air Dried Coating which provides that:

i. No owner or operator of an affected coating operations shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the top coatings as applied to miscellaneous metal parts and products. The following emission limitation is expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator:

kg/liter	lb/gallon
0.42	3.5

ii. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composites

7.4.4 Non-Applicability of Regulations of Concern

None

7.4.5 Operational and Production Limits and Work Practices

None

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Sulfur Hexafluoride Packaging Unit is subject to the following:

	Particulate Emissions (Lb/Hr)
Bead Blaster	0.55
Cylinder Paint Booth	0.55

These limits are based on maximum operating hours as provided in the Title 5 Permit application. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1N]

The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit PM and VOC emissions from the affected Sulfur Hexafluoride Packaging Unit below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].

7.4.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows: [35 IAC 215.105(a), 215.211(c), and Section 39.5(7)(b) of the Act]

Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on

the affected coating of miscellaneous metal parts and products shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 215.105(a) and 215.211(a).

a. The VOM content of representative coatings "as applied" on the coating of miscellaneous metal parts and products shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 215.105(a);

b. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.4.9(b) directly reflect the application of such material and separately account for any additions of solvent. [35 IAC 215.105(a) and 215.211(a)]

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1, 7.4.3(b) and (c), and 7.4.6 pursuant to Section 39.5(7)(b) of the Act:

a. i. Primary Paint Usage, gal/yr.

ii. Thinner Usage, gal/yr.

iii. Operating hours per year.

iv. Density of each applied coating.

v. The weight of VOM per volume of each coating, in lb/gal, (minus water and any compounds which are specifically exempted from the definition of VOM) as applied on each of the coating miscellaneous metal parts and products.

vi. Solids content of each coating (lb/gal).

vii. The aggregate monthly and annual VOM emissions from coating miscellaneous metal parts and products based on the coating, and cleaning solvent usage and VOM content, and with supporting calculations.

b. Records of the testing of VOM and HAP content (in wt. %) of each coating and cleaning solvent as tested pursuant to the conditions of this section, which include the following [Section 39.5(7)(e) of the Act]:

i. Identification of material tested.

ii. Results of analysis.

iii. Documentation of analysis methodology.

c. Records addressing use of good operating practices for the bag collectors:

i. Records for periodic inspection of the bag collectors with date, name of individual performing the inspection, and the nature of the inspection.

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

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected sulfur hexafluoride packaging with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

a. Compliance with the emission limits in Conditions 5.5.1, 7.4.3(b) and (c), and 7.4.6 shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

Particulate emissions:

Bead Blaster

A = 3.23* lb/hr X (1 – Control Efficiency/100)

B = [A X Operating hours per year] ÷ 2000

Where:

A = Emissions, lb/hr
B = Emissions, ton/yr

Paint Booth

Emissions, lb/hr = 0.3945* lb/hr X (1 - Control Efficiency/100)

Emissions, Ton/yr = [0.3945* lb/hr X (1 - Control Efficiency/100) X Operating Hours Per Year] ÷ 2000

VOC and HAPs Emissions:

Primary Paint

Emissions, Ton/yr = [(VOC/HAP %) X (Usage, lb/yr)] ÷ 2000

Cleanup Solvent

Emissions, Ton/yr = [(Cleanup Solvent Usage, gal/yr) X (Density of Cleanup Solvent, lb/gal)] ÷ 2000

* Emission Factor as provided in the Title V permit application

b. Compliance of each coating with the VOM emission limitations in Condition 7.4.3(d) shall be based on the recordkeeping requirements in Condition 7.4.9 and by the use of either testing as required in Condition 7.4.7 or by use of the formulae listed below:

Coating VOM Content, lb/gal = V x D/[1 - W x D]

Where:

V = Percent VOM in the coating (%)

D = Overall coating density (lb/gal)

$W = \Sigma\ w_i/d_i)$

Where:

w_i = Percent exempt compound i in the coating,

d_i = Overall density of exempt compound i, in lb/gal

and the summation Σ is applied over water and all exempt compounds i, in the coating.

7.5 Unit 05: Iodine Pentafluoride Unit
Control: KOH Spray Tower, Packed Tower Scrubber, Process Fume Scrubber

7.5.1 Description

Manufacture of Iodine Pentafluoride.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 05	Iodine Pentafluoride Unit	Modified: 1999	KOH Spray Tower (P-190), Packed Tower Scrubber (T-16), Process Fume Scrubber (T-14)

7.5.3 Applicability Provisions and Applicable Regulations

The "affected Iodine Pentafluoride Unit" for the purpose of these unit-specific conditions, is the unit described in 7.5.1 and 7.5.2.

7.5.4 Non-Applicability of Regulations of Concern

None

7.5.5 Operational and Production Limits and Work Practices

None

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Iodine Pentafluoride Unit is subject to the following:

None

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

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

a. Amount of IF5 Produced, lb/mo.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Iodine Pentafluoride Unit with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1 shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

A = Hydrogen Fluoride (HAPs) Emissions =

Emission Factor* X Amount of IF5 Produced, lb/mo

* Stacks and Emission Factors as referenced/ provided in the Title 5 Permit application

Stack I.D.	HAP Emission Factor (lb/lb)
8-3	9.38×10^{-5}
8-5	1.25×10^{-5}

B = Sum of 12 monthly "A" values ÷ 2000

7.6 Unit 06: Ponds Mud Calciner with Dryer
Control: Secondary Baghouse (F182) and Baghouse System (F181)

7.6.1 Description

Uranium recovery muds, hard uranium ore, and other uranium-bearing slurries are dried.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 06	Ponds Mud Calciner with Dryer (Max Heat Input 3 mmBtu/Hr)	2003	Secondary Baghouse (F182) and Baghouse System (F181)

7.6.3 Applicability Provisions and Applicable Regulations

a. The "affected Ponds Mud Calciner" for the purpose of these unit-specific conditions, is the unit described in 7.6.1 and 7.6.2.

b. The affected Ponds Mud Calciner is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 1) [35 IAC 212.321(a)]

7.6.4 Non-Applicability of Regulations of Concern

a. The dryer of the affected Ponds Mud Calciner is not subject to 35 IAC 214.122 because it does not burn either solid fuel or liquid fuel exclusively.

b. The dryer of the affected Ponds Mud Calciner is not subject to 35 IAC 216.121 since this rule applies to emission units whose heat input capacity is greater than 10 mmBtu/hr.

c. The dryer of the affected Ponds Mud Calciner is not subject to 35 IAC 217.122 since the rule applies to emission units whose heat input capacity is greater than 250 mmBtu/hr.

7.6.5 Operational and Production Limits and Work Practices

None

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Ponds Mud Calciner is subject to the following:

Emissions of regulated air pollutants including hazardous air pollutants and particulate matter from the pond muds calciner shall not exceed 0.1 lb/hr and 0.44 tons/year. [T1]

These limits are based on maximum operating hours and emission factors as provided in the Title 5 Permit application. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1]

The above limitations were established in permit 01090040, pursuant to Title I of the Clean Air Act, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and 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 these rules. [T1].

7.6.7 Testing Requirements

None

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1 and 7.6.6 pursuant to Section 39.5(7)(b) of the Act:

a. Operating hours per year.

b. Total natural gas usage for fuel combustion (ft^3/mo and ft^3/yr).

c. Records addressing use of good operating practices for the bag collectors:

i. Records for periodic inspection of the bag collectors with date, name of individual performing the inspection, and the nature of the inspection.

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

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Ponds Mud Calciner with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.6.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1, 7.6.3(b) and 7.6.6 shall be based on the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

a. Particulates Emissions from Ponds Mud Calciner:

$A = 7 \times 10^{-4}$ lb/hr (from stack test)

B = [A X operating hours per year] ÷ 2000

Where:

A = Emissions, lb/hr
B = Emissions, ton/yr

b. To determine compliance with condition 5.5.1, Emissions from affected fuel combustion shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
CO	84
PM	7.6
SO_2	0.6
VOM	5.5
NO_x	100

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (< 100 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Supplement D, July 1998. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Fuel Combustion Emissions (Tons) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor/2000.

7.7 Unit 07: Calcium Fluoride Cage - Mill Flash Dryer
Control: Dust Collector

7.7.1 Description

Drying of Calcium Fluoride.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 07	Calcium Fluoride Cage - Mill Flash Dryer (Max Heat Input 4.0 mmBtu/Hr)	1981	Dust Collector

7.7.3 Applicability Provisions and Applicable Regulations

a. The "affected Calcium Fluoride Cage - Mill Flash Dryer" for the purpose of these unit-specific conditions, is the unit described in 7.7.1 and 7.7.2.

b. The affected Calcium Fluoride Cage - Mill Flash Dryer is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 2) [35 IAC 212.321(a)]

7.7.4 Non-Applicability of Regulations of Concern

a. The dryer is not subject to 35 IAC 214.122 because it does not burn either solid fuel or liquid fuel exclusively.

b. The dryer is not subject to 35 IAC 216.121 since this rule applies to emission units whose heat input capacity is greater than 10 mmBtu/hr.

c. The dryer is not subject to 35 IAC 217.122 since the rule applies to emission units whose heat input capacity is greater than 250 mmBtu/hr.

7.7.5 Operational and Production Limits and Work Practices

None

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Calcium Fluoride Cage - Mill Flash Dryer is subject to the following:

	Particulate Emissions (Lb/Hr)	(Ton/Yr)
Calcium Fluoride Process	4.32	18

For Fuel Combustion:

Pollutant	Potential Emissions (Lb/hr)	(Ton/yr)
Particulates	0.046	0.200
SO_x	0.002	0.010
NO_x	0.381	1.67
NM-VOC	0.015	0.064

These limits are based on maximum operating hours and emission factors as provided in the Title 5 Permit application. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1N]

The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit emissions from the affected Calcium Fluoride Cage - Mill Flash Dryer below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application. [T1N]

7.7.7 Operating Requirements

None

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1,

7.7.3(b) and 7.7.6 pursuant to Section 39.5(7)(b) of the Act:

a. Product Usage (CaF_2), ton/mo.

b. Product (CaF_2) Usage, ton/yr.

c. Operating hours per year.

d. Total natural gas usage for fuel combustion (ft^3/mo and ft^3/yr).

e. Records addressing use of good operating practices for the bag collectors:

i. Records for periodic inspection of the bag collectors with date, name of individual performing the inspection, and the nature of the inspection.

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

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Calcium Fluoride Cage - Mill Flash Dryer with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1, 7.7.3(b) and 7.7.6 shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors and formulas listed below:

a. Particulates and HAPs Emissions:

A = (product usage, ton/mo X 2000 X emission factor*) ÷ operating hours per month

B = Sum of 12 monthly “product usage” (ton/mo) values X emission factor*

C = Product Usage, ton/mo X Emission Factor** ÷ hours of operation per month

D = Sum of 12 monthly "product usage" (ton/mo) values X emission factor**

Where:

A = Particulate Emissions, lb/hr
B = Particulate Emissions, ton/yr
C = Hydrogen Fluoride (HAPs) Emissions, lb/hr
D = Hydrogen Fluoride (HAPs) Emissions, ton/yr

b. To determine compliance with condition 5.5.1 emissions from fuel combustion shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6 ft^3$)
CO	84
PM	7.6
SO_2	0.6
VOM	5.5
NO_x	100

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (< 100 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Supplement D, July 1998. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Fuel Combustion Emissions (Tons) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor/2000.

* 0.0009 lb/lb of CaF_2 used (as provided in the Title V Permit Application)

** 9.51×10^{-8} lb/ton of CaF_2 used (As provided in the Title V Permit Application)

7.8 Unit 08: Lime Silo (Acid Neutralization Base Regeneration)
Control: Dust Collector

7.8.1 Description

Wastewater treatment of KOH recovery.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 08	Lime Silo (Acid Neutralization Base Regeneration)	1974	Dust Collector

7.8.3 Applicability Provisions and Applicable Regulations

a. The "affected Lime Silo" for the purpose of these unit-specific conditions, is the unit described in 7.8.1 and 7.8.2.

b. The affected Lime Silo is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 2) [35 IAC 212.321(a)]

7.8.4 Non-Applicability of Regulations of Concern

None

7.8.5 Operational and Production Limits and Work Practices

None

7.8.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Calcium Fluoride Process is subject to the following:

Equipment	Particulate Emissions
	(Ton/Yr)
Calcium Fluoride Process	4.38

These limits are based on maximum operating hours and emission factors as provided in the Title 5 Permit application. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1N]

The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the PM emissions from the affected Lime Silo below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application. [T1N]

7.8.7 Operating Requirements

None

7.8.8 Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1 and 7.8.6 pursuant to Section 39.5(7)(b) of the Act:

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

   i. Records for periodic inspection of the bag collectors with date, name of individual performing the inspection, and the nature of the inspection.

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

b. Product Usage, ton/mo

c. Hours of operation, hr/mo.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Lime Silo with the permit requirements within 30 days of the

violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.8.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1, 7.8.3(b) and 7.8.6 shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors and formulas listed below:

Particulates Emissions:

A = [Product Used, ton/mo X Emission Factor* X (1 – Control Efficiency) ÷ hours of operation (hr/mo) * 2000 lb/ton

B = Sum of 12 monthly "product used" (ton/mo) values X Emission factor* ÷ 2000

Where:

A = Particulate Emissions, lb/hr
B = Particulate Emissions, Ton/yr

* 0.8 lb/ton as provided in the Title V Permit Application

Control efficiency = 99%

7.9 Unit 09: Sandblasting Recovery
Control: Dust Collector

7.9.1 Description

Recovery and recycling of blasting material.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 9	Sandblasting Recovery	Modified: 2003	Dust Collector and Blower

7.9.3 Applicability Provisions and Applicable Regulations

a. The "affected Sandblasting Recovery" for the purpose of these unit-specific conditions, is the unit described in 7.9.1 and 7.9.2.

b. The affected Sandblasting Recovery is subject to 35 IAC 212.321, which provides that:

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 on or after April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321. (See also Attachment 2) [35 IAC 212.321(a)]

7.9.4 Non-Applicability of Regulations of Concern

None

7.9.5 Operational and Production Limits and Work Practices

None

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected Sandblasting Recovery is subject to the following:

Emissions of particulate matter shall not exceed 4.0 tons/year. This limit is based on particulate emission and maximum hours of operation presented in the application. [T1]

These limits are based upon a minimal hourly emission rate and negligible annual emissions of particulate matter (TSP) from addition of dust collector with blower. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1]

The above limitations were established in permit 83060032, pursuant to Title I of the Clean Air Act, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and 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 these rules. [T1]

7.9.7 Operating Requirements

None

7.9.8 Monitoring Requirements

None

7.9.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1 and 7.9.6 pursuant to Section 39.5(7)(b) of the Act:

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

i. Records for periodic inspection of the bag collectors with date, name of individual performing the inspection, and the nature of the inspection.

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

b. Feed Rate, lb/hr

c. Hours of operation per year.

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Sandblasting Recovery with the permit requirements within 30 days of the violation pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the

probable cause of such deviations, and any corrective actions or preventive measures taken.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

Compliance with the emission limits in Conditions 5.5.1, 7.9.3(b) and 7.9.6 shall be based on the recordkeeping requirements in Condition 7.9.9 and the emission factors and formulas listed below:

For Particulate Emissions:

A = Total Feed Rate, lb/hr X B X (1 –C)

Emissions, Ton/yr = (A X hours per year) ÷ 2000

Where:

A = Emissions, lb/hr
B = Airborn fraction of blast media (10%)
C = Dust collector efficiency = 1 – 99.99%*

* per Title 5 application

7.10 Unit 10: Waste Gas Incinerator
Control: None

7.10.1 Description

Waste gases are heated in the presence of oxygen to form oxides.

7.10.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 10	Waste Incinerator (2) Manufacturer: Northeast Burn-Zol Corporation Model: 272	1976	None

7.10.3 Applicability Provisions and Applicable Regulations

a. The "affected waste gas incinerators" for the purpose of these unit-specific conditions, is the unit described in 7.10.1 and 7.10.2.

b. Emissions of PM from any incinerator, for which construction or modification commenced on or after April 14, 1972, shall not exceed 229 mg/scm (0.1 gr/scf) of effluent gases, corrected to 12 percent carbon dioxide [35 IAC 212.181(d)].

c. Emissions of CO from any incinerator shall not exceed 500 ppm, corrected to 50 percent excess air [35 IAC 216.141].

d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm. [35 IAC 214.301]

7.10.4 Non-Applicability of Regulations of Concern

None

7.10.5 Operational and Production Limits and Work Practices

The condition of each incinerator shall be inspected on a periodic basis. Deficiencies shall be expeditiously repaired or the affected waste gas incinerators taken out of service.

7.10.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected waste gas incinerators is subject to the following:

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

7.10.7 Testing Requirements

None

7.10.8 Monitoring Requirements

None

7.10.9 Recordkeeping Requirements

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

a. Operating logs for each incinerator.

b. Inspection maintenance logs for the affected waste gas incinerators, with dates of inspection, maintenance, repair, or other actions completed.

c. Total natural gas usage for affected incinerators (ft^3/mo and ft^3/yr).

d. Annual aggregate NO_x, PM, SO_x, VOC, and CO emissions from the incinerator, based on the natural gas usage and the applicable emission factors, with supporting calculations.

e. Operating hours per year.

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected waste gas incinerators with the permit requirements within 30 days of the violation 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:

Emissions of SO_x from the incinerator that may be in excess of the limits specified in Conditions 5.5.1 and 7.10.3, and 7.10.6 within 30 days of such an occurrence.

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.10.12 Compliance Procedures

a. Compliance with Condition 7.10.3(b) (c) and (d) is assumed to be achieved by the work-practices inherent in operation of each incinerator, so that no compliance procedures are set in this permit addressing this regulation; and

b. Process SO_2 Emissions

Process SO_2 Emissions, tons/yr = Maximum waste feed rate* (lb/hr) X emission factor** (lb/lb X hours of operation ÷ 2000

* 40 lb/hr of waste feed (as provided in the Title V Permit Application)

** 2 lb/lb of waste feed (as provided in the Title V Permit Application).

c. To determine compliance with Condition 5.5.1 emissions from natural gas combustion shall be calculated based on the following emission factors and formulas listed below:

Emissions from the affected incinerator burning natural gas shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6 ft^3$)
CO	84
PM	7.6
SO_2	0.6
VOM	5.5
NO_x	100

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (< 100 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Supplement D, July 1998. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Incinerator Emissions (Tons) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor/2000.

7.11 Unit 11: Natural Gas Fired Boilers, with a maximum design heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr and constructed before June 9, 1989 (distillate fuel backup).

Control: None

7.11.1 Description

Natural gas fired boilers are used to produce steam for multiple plant processes.

7.11.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Equipment	Date Constructed/ Modified	Emission Control Equipment
Unit 11	Boilers 1, 2, and 3 Natural Gas-Fired Boilers (Distillate Oil and Liquified Propane Gas (LPG) Backup) Maximum Heat Input Capacity: 18 mmBtu/hr per each boiler	Modified: 1988	None

Note: Modified to include inert gas recovery system.

7.11.3 Applicable Provisions and Regulations

a. An affected boilers for the purpose of these unit specific conditions is a hot water generating unit that is fired with natural gas (with distillate fuel backup), with a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr. The affected boilers are identified in Condition 7.11.1 and 7.11.2.

b. i. The emissions of particulate matter (PM) into the atmosphere in any one hour period shall not exceed 0.15 kg/MW-hr (0.10 lb/mmBtu) of actual heat input from any fuel combustion emission unit using liquid fuel exclusively [35 IAC 212.206].

ii. The emission of carbon monoxide (CO) into the atmosphere from any affected boiler with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

iii. A. The emission of sulfur dioxide (SO_2) into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.122(b)(2)].

c. Each affected boiler is also subject to the opacity limits identified in Condition 5.2.2(b).

7.11.4 Non-Applicability of Regulations of Concern

a. Each affected boiler is not subject to 35 IAC 217.141, because the actual heat input of the affected boiler is less than 73.2 MW (250 mmBtu/hr).

b. Pursuant to 35 IAC 215.303, each affected boiler, i.e., fuel combustion emission unit, is not subject to 35 IAC 215.301, Use of Organic Material.

c. There are no applicable requirements for particulate matter or sulfur dioxide for affected boilers firing natural gas.

d. The affected boilers are not subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc because the boilers were constructed before June 9, 1989.

7.11.5 Operational and Production Limits and Work Practices

a. The affected boilers shall only be fired by natural gas, distillate fuel oil, or LPG as the fuels.

b. The Permittee shall not use distillate fuel oil (Grades No. 1 and 2 fuels) in the affected boilers with a sulfur content greater than the larger of the following two values:

i. 0.29 weight percent, or

ii. The wt. percent given by the formula:

Maximum wt. percent sulfur = (0.000015) x (Gross heating value of oil, Btu/lb).

7.11.6 Emission Limitations

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

Emissions of carbon monoxide from the affected boilers shall not exceed a total of 36.4 tons per year. This limit is based on maximum 8.1 lb/hr carbon monoxide emission rate and 8736 hours of operation. Compliance with annual limit shall be determined from a running total of 12 months of data. [T1]

The above limitations were established in permit 72100234, pursuant to Title I of the Clean Air Act, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and 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 these rules. [T1]

7.11.7 Testing Requirements

None

7.11.8 Monitoring Requirements

None

7.11.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1, 5.5.3 and 7.11.6 pursuant to Section 39.5(7)(b) of the Act:

a. For affected boilers,

i. Total natural gas usage for affected boilers (ft^3/mo).

ii. Total distillate fuel usage for affected boilers (gal/mo).

iii. The maximum sulfur content (in Wt.%) for each shipment of distillate fuel oil used in the affected boilers.

iv. LPG usage for affected boilers (ft^3/mo).

b. Annual aggregate NO_x, PM, SO_2, and VOM emissions from each affected boilers, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.11.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Notification of operation of the affected boilers that may not have been in compliance with the opacity limitations in Condition 5.5.2(b) with a copy of such record for each incident.

b. If there is an exceedance of sulfur content of distillate fuel oil burned in any boiler in excess of the limit specified in Condition 7.11.5, the Permittee shall submit a report.

c. Emissions of CO from the affected boilers in excess of the limits specified in Condition 7.11.6 based on the current month's records plus the preceding 11 months.

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.11.12 Compliance Procedures

a. Compliance with Condition 7.11.3(b)(i) and (ii) is demonstrated under inherent operating conditions of the affected boilers when the liquid fuel fired is distillate fuel oil, so that no compliance procedures are set in this permit addressing this requirement.

b. Compliance with Condition 7.11.3(b)(iii) is demonstrated under inherent operating conditions of affected boilers fired by distillate oil with a sulfur content meeting the specification of Condition 7.11.5(b), so that no compliance procedures are set in this permit addressing this regulation.

c. Compliance with the emission limits in Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.11.9 and the emission factors and formulas listed below:

i. Emissions from the boilers burning natural gas shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
CO	84
PM	7.6
SO_2	0.6
VOM	5.5
NO_x	100

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

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

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

Pollutant	Emission Factor ($lb/10^3$ gallon)
PM	2
NO_x	20
SO_2	142%S
VOM	0.2
CO	5

These are the emission factors for uncontrolled distillate fuel oil combustion in commercial/institutional/residential combustors, Tables 1.3-1, 1.3-3 and 1.3-7, AP-42, Volume I, Fifth Edition, September 1998. "%S" indicates that the weight % of sulfur in the oil should be multiplied by the value given. Boiler Emissions (ton) = distillate fuel oil consumed (gallons) multiplied by the appropriate emission factor/2000.

iii. Emissions from the affected boilers burning LPG fuel shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^3$ gallon)
PM	0.6
NO_x	19
SO_2	0.10%S
VOM	0.3
CO	3.2

These are the emission factors for uncontrolled LPG in Industrial Boilers, Table 1.5-1, AP-42, Volume I, Fifth Edition, October 1996. The emission factor was taken for Propane. "%S" indicates that the weight % of sulfur in the LPG should be multiplied by the value given. Boiler Emissions (ton) = LPG consumed (gallons) multiplied by the appropriate emission factor/2000.

iv. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.11.12(i), (ii) and (iii) for all affected boilers.

7.12 Unit 12: Tank Farm - HF Unloading
Control: HF Unloading Scrubber

7.12.1 Description

Three Storage tanks are vented to scrubber before HF is filled from tank cars. This unit is the source of HAPs (Hydrogen Fluoride) emissions; note that Hydrogen Fluoride is not classified as a VOM.

7.12.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed/ Modified	Emission Control Equipment
Unit 12	Tank Farm: Tank 1 – 18,000 gal, Tank 2 and 3 – 20,000	1972	Scrubber

7.12.3 Applicability Provisions and Applicable Regulations

The "affected Tank Farm" for the purpose of these unit-specific conditions, is the unit described in 7.12.1 and 7.12.2.

7.12.4 Non-Applicability of Regulations of Concern

The tanks of the affected tank farm are not subject to the NSPS for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, 40 CFR 60 Subpart Kb; the affected tank was constructed prior to 1984 and HF is not reported as VOM.

7.12.5 Operational and Production Limits and Work Practices

None

7.12.6 Emission Limitations

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

None

7.12.7 Testing Requirements

None

7.12.8 Monitoring Requirements

None

7.12.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected Tank Farm to demonstrate compliance with condition 5.5.1 and 7.12.6, pursuant to Section 39.5(7)(b) of the Act:

Tons HF delivered per year

7.12.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected tank farm with the permit requirements within 30 days of such an occurrence pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.12.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.12.12 Compliance Procedures

Compliance of the affected Tank Farm with condition 5.5.1 shall be determined by the recordkeeping requirements of 7.12.9 and the following formulas and emission factors:

A = 0.0152 lb/ton X Number of tons HF liquid loaded per year

B = A ÷ 2000

Where:

A = HF Emissions, lb/yr
B = HF Emissions, ton/year

* As provided in the Title V Permit application

7.13 Unit 13: Fugitive Emissions – Exhaust Fans

7.13.1 Description

Exhaust fans are the sources of Fugitive Particulate Matter and HAPs (Uranium Dust) emissions.

7.13.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Date Constructed	Control
Unit 13	Fugitive Emissions from Exhaust Fans	---	None

7.13.3 Applicability Provisions and Applicable Regulations

Refer to the source-wide conditions in Section 5 which address opacity requirements.

7.13.4 Non-Applicability of Regulations of Concern

N/A

7.13.5 Control Requirements

None

7.13.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, Unit 14 is subject to the following:

None

7.13.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act and 35 IAC 212.107, for both fugitive and non-fugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This test method shall be used to determine compliance with 35 IAC 212.123 [35 IAC 212.107].

b. Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR part 60, Appendix A, except that for roadways and parking areas the number of readings

required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged. This test method shall be used to determine compliance with 35 IAC 212.301 [35 IAC 212.109].

7.13.8 Inspection Requirements

N/A

7.13.9 Recordkeeping Requirements

UF6 produced.

7.13.10 Reporting Requirements

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

7.13.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.13.12 Compliance Procedures

Compliance of the fugitive emission source with conditions 7.13.6 shall be based on the recordkeeping requirements of 7.13.9, and by the use of the emission factors and formula listed below:

<u>Fugitive Particulate Emissions</u>:

A = Emission factor*, lb/ton UF6 produced X UF6 Produced, ton/yr

B = A ÷ 2,000

Where:

A = Fugitive Particulate, lb/yr

B = Fugitive Particulate, ton/yr

Fugitive HAPs Emissions:

C = Emission factor*, lb/ton UF_6 produced X UF_6 Produced, ton/yr

D = A ÷ 2,000

Where:

C = Fugitive HAPs, lb/yr

D = Fugitive HAPs, ton/yr

* Emission factors as provided in the Title V permit application:

Particulates = 2.22 X 10^{-2}
HAPs = 1.66 X 10^{-2}

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 **May 7, 2003** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

8.3 Emissions Trading Programs

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

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

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

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

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

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

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

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

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

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

8.6.2 Test Notifications

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

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

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

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

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

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

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

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

8.6.3 Test Reports

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

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

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

c. The date any analyses were performed;

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

e. The test and analytical methodologies used;

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

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

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

8.6.4 Reporting Addresses

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

i. Illinois EPA - Air Compliance Section

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

ii. Illinois EPA - Air Regional Field Office

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

iii. Illinois EPA - Air Permit Section

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

iv. USEPA Region 5 - Air Branch

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

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

8.7 Obligation to Comply with Title I Requirements

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

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

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

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

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

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

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

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

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

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

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

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

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

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

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

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

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

9.5 Liability

9.5.1 Title

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

9.5.2 Liability of Permittee

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

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

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

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

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more

frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

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

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

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

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

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

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

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

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

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

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

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

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

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

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

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

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1 - Emissions of Particulate Matter from Existing Process Emission Units

a. Except as further provided in this Part, 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 this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

Where:

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

1. For 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

2. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

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

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
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.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	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

Where:

P = Process weight rate in Mg/hr or T/hr, and
E = Allowable emission rate in kg/hr or lb/hr.

10.2 Attachment 2 - Emissions of Particulate Matter from New Process Emission Units

10.2.1 Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

a. Except as further provided in this Part, 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 this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

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

Where:

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

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

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

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

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

c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972.

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	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	5.15
4.5	2.7	5.00	6.00
9.	3.9	10.00	8.70
3.	4.8	15.00	10.80
18.	5.7	20.00	12.50
23.	6.5	25.00	14.00
27.	7.1	30.00	15.60
32.	7.7	35.00	17.00
36.	8.2	40.00	18.20
41.	8.8	45.00	19.20
45.	9.3	50.00	20.50
90.	13.4	100.00	29.50
140.	17.0	150.00	37.00
180.	19.4	200.00	43.00
230.	22.	250.00	48.50
270.	24.	300.00	53.00
320.	26.	350.00	58.00
360.	28.	400.00	62.00
408.	30.1	450.00	66.00
454.	30.4	500.00	67.00

10.3 Attachment 3 - Example Certification by a Responsible Official

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

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.4 Attachment 4 - Guidance on Revising This Permit

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

1. Administrative Permit Amendment;

2. Minor Permit Modification; and

3. Significant Permit Modification.

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

1. Administrative Permit Amendment

- Corrects typographical errors;
- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- Requires more frequent monitoring or reporting by the Permittee;
- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.

2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and

    - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA;

- Are not required to be processed as a significant permit modification; and

- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

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

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

- The source's suggested draft permit/conditions;

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

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

3. Significant Permit Modification

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

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

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

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

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

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

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

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

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

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

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

Source Information

1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. I.D. number:

Owner Information

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

Operator Information (if different from owner)

14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information

19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

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

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

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

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.

Authorized Signature:

BY:

_____ _____

AUTHORIZED SIGNATURE TITLE OF SIGNATORY

_____ _____ / _____ / _____

TYPED OR PRINTED NAME OF SIGNATORY DATE

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

10.6 Attachment 6 - Guidance on Renewing This Permit

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

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

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.

2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.

3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.

4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.

5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.

6. Information addressing any outstanding transfer agreement pursuant to the ERMS.

7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT,

as existing information is being incorporated by reference.

b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.

9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

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

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

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

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

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control

Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

SIS:psj