

**New York State Department of Environmental Conservation**  
**Facility DEC ID: 5520500057**



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 5-5205-00057/00006  
Mod 0 Effective Date: 03/05/1998 Expiration Date: No expiration date.  
Mod 1 Effective Date: 01/27/2003 Expiration Date: No expiration date.  
Mod 2 Effective Date: 11/22/2004 Expiration Date: No expiration date.  
Mod 3 Effective Date: 02/22/2006 Expiration Date: No expiration date.

Permit Issued To: AMES GOLDSMITH CORP  
21 ROGER ST  
GLENS FALLS, NY 12801-3821

Facility: AMES GOLDSMITH CORP  
21 ROGER ST  
GLENS FALLS, NY 12801

Contact: CHARLES T MCCABE  
21 ROGERS ST  
GLENS FALLS, NY 12801  
(518) 792-5808

Description:

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: WALTER L HAYNES  
DIVISION OF ENVIRONMENTAL PERMITS  
232 GOLF COURSE RD PO BOX 220  
WARRENSBURG, NY 12885-0220

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**Notification of Other State Permittee Obligations**

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



**LIST OF CONDITIONS**

**DEC GENERAL CONDITIONS**

**General Provisions**

Facility Inspection by the Department

Facility Inspection by the Department

Relationship of this Permit to Other Department Orders and Determinations

Applications for Permit Renewals and Modifications

Applications for Permit Renewals and Modifications

Permit Modifications, Suspensions and Revocations by the Department

Permit Modifications, Suspensions, and Revocations by the Department

**Facility Level**

Submission of Applications for Permit Modification or Renewal -REGION 5  
SUBOFFICE



**DEC GENERAL CONDITIONS**  
**\*\*\*\* General Provisions \*\*\*\***  
**GENERAL CONDITIONS - Apply to ALL Authorized Permits.**

**Condition 1-2: Facility Inspection by the Department**  
**Applicable State Requirement: ECL 19-0305**

**Item 1-2.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1-2.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

**Item 1-2.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 1: Facility Inspection by the Department**  
**Applicable State Requirement: ECL 3-0301.2(g)**

**Expired by Mod No: 1**

**Item 1.1:**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

**Item 1.2:**

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when written or verbal notification is provided by the Department at least 24 hours prior to such inspection.

**Item 1.3:**

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**Condition 2: Relationship of this Permit to Other Department Orders and Determinations**  
**Applicable State Requirement: ECL 3-0301.2(m)**

**Item 2.1:**



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Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**Condition 1-1: Applications for Permit Renewals and Modifications**  
**Applicable State Requirement: 6NYCRR 621.13**

**Item 1-1.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 1-1.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Item 1-1.3:**

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

**Condition 3: Applications for Permit Renewals and Modifications**  
**Applicable State Requirement: 6NYCRR 621.13(a)**

**Expired by Mod No: 1**

**Item 3.1:**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

**Item 3.2:**

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

**Condition 1-3: Permit Modifications, Suspensions and Revocations by the Department**  
**Applicable State Requirement: 6NYCRR 621.14**

**Item 1-3.1:**

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions,

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relevant technology or applicable law or regulations since the issuance of the existing permit;  
e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**Condition 4: Permit Modifications, Suspensions, and Revocations by the Department**  
**Applicable State Requirement: 6NYCRR 621.14**

**Expired by Mod No: 1**

**Item 4.1:**

The Department reserves the right to modify, suspend, or revoke this permit. The grounds for modification, suspension or revocation include:

- a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
- b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
- c) new material information is discovered; or
- d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

**\*\*\*\* Facility Level \*\*\*\***

**Condition 5: Submission of Applications for Permit Modification or Renewal -REGION 5**  
**SUBOFFICE**  
**Applicable State Requirement: 6NYCRR 621.5(a)**

**Item 5.1:**

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator  
Region 5 Sub-office  
Division of Environmental Permits  
232 Hudson St, PO Box 220  
Warrensburg, NY 12885-0220  
(518) 623-1281

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**Permit Under the Environmental Conservation Law (ECL)**

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY PERMIT**

**IDENTIFICATION INFORMATION**

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21 ROGER ST  
GLENS FALLS, NY 12801-3821

Facility: AMES GOLDSMITH CORP  
21 ROGER ST  
GLENS FALLS, NY 12801

Authorized Activity By Standard Industrial Classification Code:  
2819 - INDUSTRIAL INORGANIC CHEMICALS

Mod 0 Permit Effective Date: 03/05/1998

Permit Expiration Date: No expiration date.

Mod 1 Permit Effective Date: 01/27/2003

Permit Expiration Date: No expiration date.

Mod 2 Permit Effective Date: 11/22/2004

Permit Expiration Date: No expiration date.

Mod 3 Permit Effective Date: 02/22/2006

Permit Expiration Date: No expiration date.

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**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

3-1 6NYCRR 212.4(c): Compliance Demonstration

1-3 6NYCRR 212.6(a): Compliance Demonstration

**Emission Unit Level**

**EU=U-00001,Proc=001**

1-4 6NYCRR 212.4(a): Compliance Demonstration

1-5 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-00001,Proc=001,ES=00001**

3-2 6NYCRR 212.4(a): Compliance Demonstration

1-6 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-00001,Proc=FUM**

2-2 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-CATRE**

1-9 6NYCRR 212.4(a): Emissions from new emission sources and/or modifications

**EU=U-POWFL**

1-12 6NYCRR 212.4(a): Emissions from new emission sources and/or modifications

**EU=U-SILOX**

1-13 6NYCRR 212.4(a): Emissions from new emission sources and/or modifications

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

1-14 ECL 19-0301: Contaminant List

1-15 6NYCRR 201-1.4: Unavoidable noncompliance and violations

26 6NYCRR 201-5: Emission Unit Definition

15 6NYCRR 211.2: Air pollution prohibited

1-16 6NYCRR 212.4(a): Compliance Demonstration

**Emission Unit Level**

29 6NYCRR 201-5: Emission Point Definition By Emission Unit

30 6NYCRR 201-5: Process Definition By Emission Unit

**EU=U-00001,Proc=FUM,ES=SCB02**

2-5 6NYCRR 212.4(a): Compliance Demonstration

2-6 6NYCRR 212.4(a): Compliance Demonstration



**EU=U-00001,EP=2X500**

- 2-7 6NYCRR 212.4(a): Compliance Demonstration
- 2-8 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-CATRE,Proc=CAT,ES=00005**

- 2-9 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-CATRE,EP=00005**

- 2-10 6NYCRR 212.4(a): Compliance Demonstration
- 2-11 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-POWFL,Proc=PDR,ES=SCR01**

- 2-12 6NYCRR 212.4(a): Compliance Demonstration
- 2-13 6NYCRR 212.4(a): Compliance Demonstration
- 1-25 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-SILOX,Proc=AMM,ES=AMSCB**

- 3-3 6NYCRR 212.4(a): Compliance Demonstration
- 3-4 6NYCRR 212.4(a): Compliance Demonstration

**EU=U-SILOX,EP=AMSRB**

- 2-14 6NYCRR 212.4(a): Compliance Demonstration



**FEDERALLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Sealing - 6NYCRR Part 200.5**

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

**Item B: Acceptable Ambient Air Quality - 6NYCRR Part 200.6**

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

**Item C: Maintenance of Equipment - 6NYCRR Part 200.7**

Any person who owns or operates an air contamination

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source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

**Item D: Unpermitted Emission Sources - 6NYCRR Part 201-1.2**

If an existing emission source was subject to the permitting requirements of 6NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

**Item E: Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated;

(3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner and/or operator notified the Department within two working days after the event



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occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item F: Recycling and Salvage - 6NYCRR Part 201-1.7**

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

**Item G: Prohibition of Reintroduction of Collected Contaminants to the Air - 6NYCRR Part 201-1.8**

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

**Item H: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR Part 201-3.2(a)**

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

**Item I: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR Part 201-3.3(a)**

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific



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criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

**Item J: Required Emission Tests - 6 NYCRR Part 202-1.1**

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6NYCRR Part 202-1.

**Item K: Visible Emissions Limited - 6 NYCRR Part 211.3**

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

**Item L: Open Fires - 6 NYCRR Part 215**

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, rubbish for salvage, or rubbish generated by industrial or commercial activities.

**Item M: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not



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limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item N: Federally Enforceable Requirements - 40 CFR 70.6(b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**FEDERAL APPLICABLE REQUIREMENTS**  
**The following conditions are federally enforceable.**

**Condition 3-1: Compliance Demonstration**  
**Effective between the dates of 02/22/2006 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(c)**

**Item 3-1.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: U-00001

Emission Unit: U-CATRE

Emission Unit: U-POWFL

Emission Unit: U-SILOX

Regulated Contaminant(s):  
CAS No: 0NY075-00-0 PARTICULATES

**Item 3-1.2:**



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Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of solid particles from process sources are limited to less than 0.05 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry basis. Compliance testing will be conducted at the discretion of the department.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.05 grains per dscf

Reference Test Method: Method 5

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-3: Compliance Demonstration**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.6(a)**

**Replaces Condition(s) 22**

**Item 1-3.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 1-3.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall cause or allow emissions to the outdoor atmosphere having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source, except only the emission of uncombined water.

The Department reserves the right to perform or require the performance of a Method 9 opacity evaluation.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING



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**DESCRIPTION**

Averaging Method: 6 MINUTE AVERAGE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 1-4: Compliance Demonstration**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-4.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: 001

**Item 1-4.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

A system must be in place that shuts down the process upon malfunction or shutdown of the control equipment. Residual emissions existing after shutdown shall not be emitted without appropriate control specified in 6NYCRR, Section 212.9, Table 2 . This system shall be tested annually and documentation of this testing shall include date, time, and name of personnel performing test. These records shall be available for inspection by NYSDEC or USEPA representative during normal business hours. All occurrences of DCU shutdown and malfunctions must be recorded in a bound log book. This documentation shall be retained on site for a period of at least five (5) years.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-5: Compliance Demonstration**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-5.1:**



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The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: 001

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 1-5.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

A performance test demonstrating NOx removal shall be conducted within 180 operating days (process 001) beginning on the effective date of mod 1. NOx removal must be at least 94%. This performance test must be conducted under worst case loads and at surrogate parameters identified in this permit. This limit may need to be modified based upon results of stack test. Additional testing shall be conducted at the discretion of the Department.

Parameter Monitored: OXIDES OF NITROGEN

Lower Permit Limit: 94 percent reduction by weight

Reference Test Method: Method 7C

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 3-2: Compliance Demonstration**

**Effective between the dates of 02/22/2006 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 3-2.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: 001

Emission Source: 00001

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 3-2.2:**



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Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The control device must remove at least 94% of nitrogen oxides. Testing shall be conducted at the discretion of the Department.

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 94 percent reduction by weight

Reference Test Method: method 7E

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 1-6: Compliance Demonstration**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-6.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: 001

Emission Source: 00001

**Item 1-6.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The permittee must continuously monitor and record the DCU temperature. The combustion temperature of the DCU must stay above 1700F at all times the process (001) is operating. This surrogate may need to be modified based upon stack test results.

Parameter Monitored: TEMPERATURE

Lower Permit Limit: 1700 degrees Fahrenheit

Monitoring Frequency: CONTINUOUS

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE AT ANY TIME

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

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**Condition 2-2: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 2-2.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: FUM

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

**Item 2-2.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Continuously monitor and record temperature in reactor kettles. As the temperature approaches 200 degrees F, addition of nitric acid will be stopped while the oxidizing agent will continue to be added. This will ensure an excess of oxidizing agent which will prevent nitrogen oxide from being formed. The temperature will not exceed 200 degrees.

Parameter Monitored: TEMPERATURE

Upper Permit Limit: 200 degrees Fahrenheit

Monitoring Frequency: CONTINUOUS

Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY  
TIME (INSTANTANEOUS/DISCRETE OR GRAB)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-9: Emissions from new emission sources and/or modifications**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-9.1:**

This Condition applies to Emission Unit: U-CATRE

**Item 1-9.2:**

No person shall cause or allow emissions that exceed the applicable permissible emission rate as determined from Table 2, Table 3, or Table 4 of 6 NYCRR Part 212 for the environmental rating issued by the commissioner.

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**Condition 1-12: Emissions from new emission sources and/or modifications**  
**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-12.1:**

This Condition applies to Emission Unit: U-POWFL

**Item 1-12.2:**

No person shall cause or allow emissions that exceed the applicable permissible emission rate as determined from Table 2, Table 3, or Table 4 of 6 NYCRR Part 212 for the environmental rating issued by the commissioner.

**Condition 1-13: Emissions from new emission sources and/or modifications**  
**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable Federal Requirement: 6NYCRR 212.4(a)**

**Item 1-13.1:**

This Condition applies to Emission Unit: U-SILOX

**Item 1-13.2:**

No person shall cause or allow emissions that exceed the applicable permissible emission rate as determined from Table 2, Table 3, or Table 4 of 6 NYCRR Part 212 for the environmental rating issued by the commissioner.



**STATE ONLY ENFORCEABLE CONDITIONS**

**\*\*\*\* Facility Level \*\*\*\***

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability**

**Item A: Public Access to Recordkeeping for Facilities With State Facility Permits - 6NYCRR Part 201-1.10(a)**

Where emission source owners and/or operators keep records pursuant to compliance with the operational flexibility requirements of 6 NYCRR Subpart 201-5.4(b)(1) , and/or the emission capping requirements of 6 NYCRR Subparts 201-7.2(d), 201-7.3(f), 201-7.3(g), 201-7.3(h)(5), 201-7.3(i) and 201-7.3(j), the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Emission source owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department of receipt of the request.

**Item B: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or

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law.

**STATE ONLY APPLICABLE REQUIREMENTS**

**The following conditions are state only enforceable.**

**Condition 1-14: Contaminant List**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable State Requirement: ECL 19-0301**

**Item 1-14.1:**

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000050-00-0

Name: FORMALDEHYDE

CAS No: 000302-01-2

Name: HYDRAZINE

CAS No: 007697-37-2

Name: NITRIC ACID

CAS No: 0NY210-00-0

Name: OXIDES OF NITROGEN

CAS No: 0NY075-00-0

Name: PARTICULATES

**Condition 1-15: Unavoidable noncompliance and violations**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 201-1.4**

**Item 1-15.1:**

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

- (a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which



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contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.

(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

**Condition 26: Emission Unit Definition**

**Effective between the dates of 03/05/1998 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 201-5**

**Item 26.1(From Mod 3):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-00001

Emission Unit Description:

This emission unit is for the Silver Nitrate Department. It consists of six reactor vessels (sources K001-K05A), six evaporators (sources EV001-05A), two new pressure vessels (sources NPV01 & 02), two drying ovens (sources Oven 1 & 2), one pelletizer (source Pell1), one



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packaging unit (source PCK1), a direct combustion unit (source 00001), a packed tower scrubber (source 00002), a demister (source DEMIS), a scrubber (SCB02) and two dust collectors with HEPA filters. The DCU (emission point 1X500), demister (EP 2X500) and scrubber (EP SCB02) are the only emission points in this unit. The DCU and the demister will be removed after successful emission testing of the fume free process, leaving only the scrubber as an emission point.

Building(s): 1

**Item 26.2(From Mod 3):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-CATRE

Emission Unit Description:

This emission unit is for the catalyst recycling department. It consists of four reactor units (K16 - K19), one wet scrubber (00005), one oven, one dust collector and a melting unit which is exempt from permitting. Emission points include exhausts from the scrubber, the oven and dust collector.

Building(s): 1

**Item 26.3(From Mod 3):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-POWFL

Emission Unit Description:

This emission unit consists of three processes. Process PDR produces silver powder from silver nitrate. Emission sources/controls associated with process are in Building 3 and include; reactor kettles, ovens, and a wet scrubber (source SCR01). Processes EFK and FLK produces silver flake. Sources associated with the processes include ball mill machines, wash tanks and screens.

Building(s): 1  
3

**Item 26.4(From Mod 3):**

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: U-SILOX

Emission Unit Description:

This emission unit consists of three processes. Process AMM produces silver powder and is Building 3. Process SOX produces silver oxide. Process SOH is used to produce



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a silver and a tin compound mixture. Emission sources consist of: reactor kettles (sources K0006-12 and AMRT 1-2), drying ovens, an ammonium nitrate evaporator (source SSRX1), an ammonium day tank (source AMDAY), a hydrazine day tank (source HZDAY) and sieves. Emission point EP RCT01 is a vent for reactors K0006 - 11. Reactors AMRT 1-2, the ammonium nitrate evaporator, and two day tanks are exhausted to the ammonia scrubber (source/control AMSCB) and out EP AMSRB. Ovens vent water vapor from the material as it is being dried. Particulate emissions from the sieves are controlled by HEPA dust collectors.

Building(s): 1  
3

**Condition 15: Air pollution prohibited**  
**Effective between the dates of 03/05/1998 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 211.2**

**Item 15.1:**

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

**Condition 1-16: Compliance Demonstration**  
**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 1-16.1:**

The Compliance Demonstration activity will be performed for the facility:  
The Compliance Demonstration applies to:

Emission Unit: U-SILOX  
Process: AMM                      Emission Source: AMRT1

Emission Unit: U-SILOX  
Process: AMM                      Emission Source: AMRT2

**Item 1-16.2:**

Compliance Demonstration shall include the following monitoring:



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Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

In accordance with 6NYCRR 212.9 (b) table 2, to assure compliance for the degree of treatment of hydrazine, an A - rated contaminant, the source owner shall completely destroy any residual hydrazine remaining after the reaction is completed. The residual hydrazine will be destroyed after transfer of waste water to the evaporator prior to evaporation.

Records shall be kept in a bound log book indicating batch number, date, time and hydrazine sample results.

Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL CHANGE

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**\*\*\*\* Emission Unit Level \*\*\*\***

**Condition 29: Emission Point Definition By Emission Unit  
Effective between the dates of 03/05/1998 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 201-5**

**Item 29.1(From Mod 3):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit:	U-00001		
Emission Point:	1X500		
Height (ft.):	42	Diameter (in.):	18
			Building: 1
Emission Point:	2X500		
Height (ft.):	27	Diameter (in.):	10
			Building: 1
Emission Point:	SCB02		
Height (ft.):	27	Diameter (in.):	14
			Building: 1

**Item 29.2(From Mod 3):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-CATRE

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Emission Point: 00005 Height (ft.): 20	Diameter (in.): 10	Building: 1
Emission Point: DTCLT Height (ft.): 10	Diameter (in.): 6	Building: 1
Emission Point: OVNVT Height (ft.): 33	Diameter (in.): 8	Building: 1

**Item 29.3(From Mod 3):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-POWFL		
Emission Point: DSTPF Height (ft.): 21	Diameter (in.): 7	Building: 1
Emission Point: OVEN6 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVEN9 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN10 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN11 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN12 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN13 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN14		



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Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN15 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN16 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVN17 Height (ft.): 28	Diameter (in.): 6	Building: 3
Emission Point: OVP02 Height (ft.): 33	Diameter (in.): 6	Building: 1
Emission Point: SCB01 Height (ft.): 60	Diameter (in.): 10	Building: 1
Emission Point: SOLFN Height (ft.): 15	Diameter (in.): 16	Building: 1
Emission Point: SOLVT Height (ft.): 18	Diameter (in.): 16	Building: 1

**Item 29.4(From Mod 3):**

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: U-SILOX		
Emission Point: AMDST Height (ft.): 25	Diameter (in.): 4	Building: 3
Emission Point: AMSRB Height (ft.): 30	Diameter (in.): 10	Building: 3
Emission Point: OVGRB Height (ft.): 9	Diameter (in.): 8	Building: 3



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Emission Point: OVP01 Height (ft.): 33	Length (in.): 5	Width (in.): 5 Building: 1
Emission Point: OVP03 Height (ft.): 33	Length (in.): 5	Width (in.): 5 Building: 1
Emission Point: OVVAC Height (ft.): 19	Diameter (in.): 6	Building: 3
Emission Point: RCT01 Height (ft.): 27	Diameter (in.): 9	Building: 1
Emission Point: VENT1 Height (ft.): 14	Diameter (in.): 14	Building: 3
Emission Point: VENT2 Height (ft.): 14	Diameter (in.): 14	Building: 3
Emission Point: VENT3 Height (ft.): 14	Diameter (in.): 18	Building: 3

**Condition 30: Process Definition By Emission Unit**  
**Effective between the dates of 03/05/1998 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 201-5**

**Item 30.1(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: 001

Process Description:

Silver is reacted in steam heated kettles with Nitric Acid to produce Silver Nitrate. The kettles are exhausted to the Direct Combustion Unit (DCU) which controls Nitrogen Oxide emissions.

Emission Source/Control: 00001 - Control

Control Type: DIRECT FLAME AFTERBURNER

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Emission Source/Control: DEMIS - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: K0001 - Process

Emission Source/Control: K0002 - Process

Emission Source/Control: K0003 - Process

Emission Source/Control: K0004 - Process

Emission Source/Control: K0005 - Process

Emission Source/Control: K005A - Process

Emission Source/Control: NPV01 - Process

Emission Source/Control: NPV02 - Process

**Item 30.2(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-00001

Process: 111

Process Description:

This process receives silver nitrate solution from Process 011\ EU CATRE and completes the formation of silver nitrate crystals. The mixture received from process 011 is sent to the new pressure vessels where it is treated and put under light pressure through filters to remove fine impurities. Next the mixture is sent to the evaporators where the solution is typically only stored. However, hand crystallizing using only one evaporator at any time is still an option. If not hand crystallized, the mixture is sent to a crystallizer where liquid is evaporated and silver nitrate crystals are formed. After the crystals form, it is sent to a centrifuge which then releases into an oven. There are no emissions from the crystallizers and centrifuge processes. In the ovens material is allowed to completely dry and is then sent to the packaging/pelletizer units. There is one emission point which releases to the outside air in this process, demister (EP 2x500).

The two dust collectors (sources DUST1 & 5) vent inside the building.

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Emission Source/Control: 00002 - Control  
Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: DEMIS - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: DUST1 - Control  
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: DUST5 - Control  
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: EV001 - Process  
Design Capacity: 400 gallons

Emission Source/Control: EV002 - Process  
Design Capacity: 300 gallons

Emission Source/Control: EV003 - Process  
Design Capacity: 300 gallons

Emission Source/Control: EV004 - Process  
Design Capacity: 300 gallons

Emission Source/Control: EV005 - Process  
Design Capacity: 400 gallons

Emission Source/Control: NPV01 - Process  
Design Capacity: 1,000 gallons

Emission Source/Control: NPV02 - Process  
Design Capacity: 1,000 gallons

Emission Source/Control: OVEN1 - Process  
Design Capacity: 1,100 pounds per hour

Emission Source/Control: OVEN2 - Process  
Design Capacity: 1,000 kilograms

Emission Source/Control: PCK01 - Process

Emission Source/Control: PELL1 - Process

**Item 30.3(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

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Emission Unit: U-00001

Process: FUM

Process Description:

Fume free method: The silver ingots are placed in a reactor where Nitric Acid, Hydrogen Peroxide, water and some steam are mixed. The process is allowed to continue until the free acid is less than 1 %. This method does not produce NOx and is not vented to the DCU. The mixture is then sent to the new pressure vessel (NPV) where it is treated and put under light pressure through filters to remove fine impurities. Next, the mixture is sent to the evaporators where the solution is typically only stored. However, hand crystallizing using only one evaporator at any time is still an option. If not hand crystallized, the mixture is sent to a crystallizer where liquid is evaporated and silver nitrate crystals are formed. After the crystals form, they are sent to a centrifuge which releases them into an oven. There are no emissions from the crystallizers or centrifuge. The material is allowed to dry completely in the ovens and is then sent to the packaging / pelletizer units. The ovens and the scrubber are the only emission points used for this process. Two dust collectors vent inside the building.

Emission Source/Control: SCB02 - Control

Control Type: WET SCRUBBER

Emission Source/Control: EV001 - Process

Design Capacity: 400 gallons

Emission Source/Control: EV002 - Process

Design Capacity: 300 gallons

Emission Source/Control: EV003 - Process

Design Capacity: 300 gallons

Emission Source/Control: EV004 - Process

Design Capacity: 300 gallons

Emission Source/Control: EV005 - Process

Design Capacity: 400 gallons

Emission Source/Control: EV05A - Process

Design Capacity: 400 gallons

Emission Source/Control: K0001 - Process

Design Capacity: 4,000 pounds per day

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Emission Source/Control: K0002 - Process  
Design Capacity: 4,000 pounds per day

Emission Source/Control: K0003 - Process  
Design Capacity: 4,000 pounds per day

Emission Source/Control: K0004 - Process  
Design Capacity: 4,000 pounds per day

Emission Source/Control: K0005 - Process  
Design Capacity: 4,000 pounds per day

Emission Source/Control: K005A - Process  
Design Capacity: 4,000 pounds per day

Emission Source/Control: NPV01 - Process  
Design Capacity: 1,000 gallons

Emission Source/Control: NPV02 - Process  
Design Capacity: 1,000 gallons

Emission Source/Control: OVEN1 - Process  
Design Capacity: 1,100 pounds per hour

Emission Source/Control: OVEN2 - Process  
Design Capacity: 1,000 kilograms

**Item 30.4(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-CATRE

Process: 011

Source Classification Code: 3-01-999-99

Process Description:

Silver ingots and chemicals are placed in one of two steam jacketed reactors (K0004, K0005) and heated. The process is allowed to continue until silver nitrate is formed. The silver nitrate solution from these reactors will then be further refined in EU 00001, process 111.

This process produces significantly less NO<sub>x</sub> than traditional methods and will be vented to a scrubber (source/control 00005) and out EP 00005. This process will allow for refinement in technology associated with "NO<sub>x</sub> free" silver nitrate production. Data obtained while operating this process may later be used to design an

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effective emissions control device for a full conversion of the facility to the "NOx free" technology.

Emission Source/Control: 00005 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: K0016 - Process

Emission Source/Control: K0017 - Process

**Item 30.5(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-CATRE

Process: CAT

Source Classification Code: 3-01-999-99

Process Description:

Spent catalyst which has silver implanted on it is stripped down in the kettle reactors with nitric acid to extract the silver in the form of low grade silver nitrate using "NOx free" technology. This silver nitrate mixture is then sent to a precipitator to precipitate out the solid particles. The solution is further refined in these kettles to produce a wet silver powder. When this reaction is completed, the mixture is dumped into a wash cart and pumped to remove all liquids. The material is sent to the ovens to be dried out. At this point the silver is 99.9% pure. This silver is sent to the melter to be formed into silver bars. The emission points associated with this process are for the kettles/scrubber (EP 00005), oven vent (EP OVNVT ), dust collector (EP DTCLT).

Emission Source/Control: 00005 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: DUST2 - Control  
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: K0016 - Process

Emission Source/Control: K0017 - Process

Emission Source/Control: K0018 - Process

Emission Source/Control: K0019 - Process

Emission Source/Control: OVEN7 - Process

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**Item 30.6(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-CATRE

Process: FFC

Source Classification Code: 3-01-999-99

Process Description:

Spent catalyst which has silver implanted on it is stripped down in the kettle reactors with nitric acid to extract the silver in the form of low grade silver nitrate using "NOx free" technology. This silver nitrate mixture is then sent to a precipitator to precipitate out the solid particles. The solution is further refined in these kettles to produce a wet silver powder. When this reaction is completed, the mixture is dumped into a wash cart and pumped to remove all liquids. The wet silver powder is sent to a "fume free" reactor where the silver is mixed again with nitric acid and hydrogen peroxide. Once the reaction is done, the silver nitrate solution is sent to the silver oxide department for further processing. The emission point associated with this process is for the kettles/scrubber (EP 00005).

Emission Source/Control: FF0P1 - Process

Emission Source/Control: FF0P2 - Process

Emission Source/Control: K0016 - Process

Emission Source/Control: K0017 - Process

Emission Source/Control: K0018 - Process

Emission Source/Control: K0019 - Process

**Item 30.7(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-POWFL

Process: EFK

Source Classification Code: 3-01-999-99

Process Description:

This is a batch process. Silver powder is mixed in with chemicals or solvents to keep the material from clumping. The material is put into ball mills where it is rolled for 4 to 60 hours depending on the final product. When this process is done, it is dumped into either a wash cart or wash tank where solvents can be washed out. The washed



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silver flake is then put in an oven to drive off the remaining VOCs. The wash tank (source FKWST) used in this process mixes and washes solvent from the silver flake. The washed out solvents are sent to another tank where it is stored until the tank gets pumped into a storage room and placed in 55 gallon barrels. The vacuum eductor used in this process to transfer waste solvents is exhausted to a small tank of water. Fugitive process VOCs are emitted through EPs SOLFN and SOLVT.

Emission Source/Control: FKWST - Process

Emission Source/Control: MIL13 - Process

Emission Source/Control: MIL14 - Process

Emission Source/Control: MIL15 - Process

Emission Source/Control: MILL1 - Process

Emission Source/Control: MILL2 - Process

Emission Source/Control: TNKCT - Process

Emission Source/Control: TNKDT - Process

Emission Source/Control: TNKSM - Process

Emission Source/Control: TNKSV - Process

**Item 30.8(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-POWFL

Process: FLK

Source Classification Code: 3-01-999-99

Process Description:

This is a batch process. Silver powder is mixed in with chemicals or solvents to keep the material from clumping. This material is put into ball mills where it is rolled for 4 to 60 hours depending on the final product. When this process is done, it is dumped into a hand cart so the solvents can be washed out and removed by vacuum. The washed silver flake is then sorted by screens. The washed out solvents are sent to a tank where it is stored until the tank gets pumped into a storage room and placed in 55 gallon barrels. The vacuum eductor used in this process to transfer waste solvents is exhausted to a small



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tank of water. Fugitive process VOCs are emitted through EPs SOLFN and SOLVT. Particulates from screening are vented to a HEPA dust collector.

Emission Source/Control: FKWST - Process

Emission Source/Control: MIL10 - Process

Emission Source/Control: MILL1 - Process

Emission Source/Control: MILL2 - Process

Emission Source/Control: MILL3 - Process

Emission Source/Control: MILL4 - Process

Emission Source/Control: MILL5 - Process

Emission Source/Control: MILL6 - Process

Emission Source/Control: MILL7 - Process

Emission Source/Control: MILL8 - Process

Emission Source/Control: MILL9 - Process

Emission Source/Control: TNKSM - Process

**Item 30.9(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-POWFL

Process: PDR

Source Classification Code: 3-01-999-99

Process Description:

Silver nitrate and chemicals are placed into three reactor kettles and heated up with steam. Emissions from these kettles are exhausted to a wet scrubber (SCR01). When the reaction is done, the product is dropped into wash carts where they are pumped down to remove liquids. Chemicals remaining in this liquid are treated to remove any potential for emissions of these chemicals in the waste water disposal system. This material is then sent to a drying oven. When drying is done, the product is scooped out by hand and placed into shipping totes for shipment to customers. The emission points associated with this process are for the reactors/scrubber (EP SCB01), and ovens.

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Emission Source/Control: SCR01 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: K0013 - Process

Emission Source/Control: K0014 - Process

Emission Source/Control: K0015 - Process

Emission Source/Control: OVEN5 - Process

Emission Source/Control: OVEN6 - Process

Emission Source/Control: OVEN8 - Process

Emission Source/Control: OVEN9 - Process

Emission Source/Control: OVN10 - Process

Emission Source/Control: OVN11 - Process

Emission Source/Control: OVN12 - Process

Emission Source/Control: OVN13 - Process

Emission Source/Control: OVN14 - Process

Emission Source/Control: OVN15 - Process

Emission Source/Control: OVN16 - Process

Emission Source/Control: OVN17 - Process

**Item 30.10(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SILOX

Process: AMM

Process Description:

Silver nitrate is placed inside reactors with ammonium hydroxide and hydrazine and heated. After the reaction is completed, residual hydrazine is completely destroyed. The remaining ammonia and ammonium nitrate bearing waste water is removed by decantation and made up with fresh water, this is done at least three times. The silver and water solution is sent to a centrifuge to separate out the

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silver powder. The moist silver powder is then sent to the drying ovens. The ovens slowly dry the silver powder. Then the material is sent to a sieve which screens the powder. This powder can either be sold or used in the flake process. Emissions from reactors and day tanks are exhausted through scrubber AMSCB and out EP AMSRB. Emissions from the sieves are exhausted through HEPA filters.

Emission Source/Control: AMSCB - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: DUST4 - Control  
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: DUST6 - Control  
Control Type: FABRIC FILTER

Emission Source/Control: DUST7 - Control  
Control Type: FABRIC FILTER

Emission Source/Control: AMDAY - Process  
Design Capacity: 30 gallons

Emission Source/Control: AMRT1 - Process  
Design Capacity: 500 gallons

Emission Source/Control: AMRT2 - Process  
Design Capacity: 500 gallons

Emission Source/Control: GRBOV - Process  
Design Capacity: 460 volts

Emission Source/Control: HZDAY - Process  
Design Capacity: 30 gallons

Emission Source/Control: RFS01 - Process  
Design Capacity: 21.5 inches

Emission Source/Control: RFS02 - Process  
Design Capacity: 21.5 inches

Emission Source/Control: SSRX1 - Process  
Design Capacity: 500 gallons

Emission Source/Control: SWSR1 - Process  
Design Capacity: 24 inches



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Emission Source/Control: SWSR2 - Process  
Design Capacity: 24 inches

Emission Source/Control: VACOV - Process  
Design Capacity: 700 pounds per load

**Item 30.11(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: U-SILOX

Process: SOH

Process Description:

Silver nitrate, tin compounds and chemicals are mixed in kettles. The kettles are heated and the process is allowed to react to form a silver and tin oxide mixture. The kettles are then dumped into open carts which have a vacuum on the bottom to suck out liquids. The carts are filled with de-ionized water and drained by the vacuum several times until the material meets specifications. The material is tested on site and after it passes, it is scooped on to large metal sheets and placed into ovens. When the drying is done, the material is sucked out of the ovens and sent to the cyclone where solids fall out. The air goes to a HEPA dust collector. The solids that come out of the cyclone are dropped into shipping containers and packaged for shipment to clients.

Emission Source/Control: CYCL1 - Control  
Control Type: SINGLE CYCLONE

Emission Source/Control: DSTOX - Control  
Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: K0011 - Process

Emission Source/Control: K0012 - Process

Emission Source/Control: OVEN3 - Process

Emission Source/Control: OVEN4 - Process

Emission Source/Control: PCK02 - Process

**Item 30.12(From Mod 3):**

This permit authorizes the following regulated processes for the cited Emission Unit:

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Emission Unit: U-SILOX

Process: SOX

Source Classification Code: 3-01-999-99

Process Description:

Silver nitrate and chemicals are mixed into reactor kettles and reacted. The exhaust from these reactors contain steam and particulates. The kettles are then dumped into open carts which have a vacuum on the bottom to suck out liquids. The carts are filled with de-ionized water and drained by the vacuum several times until the material meets specifications. The material is tested on site and after it passes, it is scooped into large metal sheets and placed in ovens. When the drying is done, the material is sucked out of the ovens and sent to a cyclone where the solids fall out. The air goes on to a dust collector venting inside of the building. The solids that come out of the cyclone are dropped into shipping containers and packaged for shipment to clients.

Emission Source/Control: CYCL1 - Control

Control Type: SINGLE CYCLONE

Emission Source/Control: DSTOX - Control

Control Type: HIGH EFFICIENCY PARTICULATE AIR FILTER

Emission Source/Control: K0006 - Process

Emission Source/Control: K0007 - Process

Emission Source/Control: K0008 - Process

Emission Source/Control: K0009 - Process

Emission Source/Control: K0010 - Process

Emission Source/Control: OVEN3 - Process

Emission Source/Control: OVEN4 - Process

Emission Source/Control: PCK02 - Process

**Condition 2-5: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-5.1:**

The Compliance Demonstration activity will be performed for:

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Emission Unit: U-00001

Process: FUM

Emission Source: SCB02

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 2-5.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The source owner shall maintain a minimum pressure drop  
across the scrubber from this source of 3.5 inches water.

The monitoring of this surrogate will assist in  
demonstrating compliance with nitric acid limit found  
elsewhere in this permit.

Source owner shall operate a monitoring device that  
continuously measures and records the scrubber pressure  
drop. Pressure drop will be recorded in a bound log book  
at the start of each process run and an alarm will sound  
if the scrubber pump stops operating during processing.

Parameter Monitored: PRESSURE CHANGE

Lower Permit Limit: 3.5 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-6: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-6.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Process: FUM

Emission Source: SCB02

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 2-6.2:**

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Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The scrubber liquid shall have a minimum pH of at least 10.5 during processing. Scrubber liquid will be replaced at the beginning of each process run and pH measured at the time of replacement.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 10.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-7: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-7.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001 Emission Point: 2X500

**Item 2-7.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To mitigate short term and annual impacts from emissions of nitric acid, the source owner shall operate only one evaporator exhausting to emission point 2X500 at any given time in the evaporative mode. The remaining tanks will be used as storage tanks only.

A bound log book shall be kept, indicating the date, time and evaporator's operational status (eg. empty, evaporator mode, storage mode) per batch.

Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL  
CHANGE

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



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**Condition 2-8: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-8.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001 Emission Point: 2X500

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 2-8.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of nitric acid is given an environmental rating of "B" per 6NYCRR 212.9(a) table 1. For a B - rated contaminant, having an ERP of <10#/hr. the degree of treatment must be determined by the Commissioner. To mitigate short-term and annual impacts from nitric acid emissions, the source owner shall not have emissions from EP 2X500 greater than .04 #/hr.

Compliance testing may be required at the discretion of the Department.

Parameter Monitored: NITRIC ACID

Upper Permit Limit: .04 pounds per hour

Reference Test Method: Method 301

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 2-9: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-9.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE

Process: CAT

Emission Source: 00005

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**Item 2-9.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The source owner shall maintain a minimum pressure drop  
across the scrubber from this source of 3.5 inches water.

The monitoring of this surrogate will assist in  
demonstrating compliance with nitric acid limit found  
elsewhere in this permit.

Source owner shall operate a monitoring device that  
continuously measures and records the scrubber pressure  
drop. Pressure drop will be recorded in a bound log book  
at the start of each process run and an alarm will sound  
if the scrubber pump stops operating during processing.

Parameter Monitored: PRESSURE CHANGE

Lower Permit Limit: 3.5 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-10: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-10.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE Emission Point: 00005

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 2-10.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of nitric acid is given an environmental rating  
of "B" per 6NYCRR 212.9(a) table 1. For a B - rated



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contaminant, having an ERP of <10#/hr. the degree of treatment must be determined by the Commissioner. To mitigate short-term and annual impacts the source owner shall not have emissions of nitric acid from EP 00005 greater than .08 #/hr. Compliance testing may be required at the discretion of the Department.

Parameter Monitored: NITRIC ACID

Upper Permit Limit: .08 pounds per hour

Reference Test Method: Method 301

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 2-11: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-11.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE Emission Point: 00005

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 2-11.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The scrubber liquid shall have a minimum pH of at least 10.5 during processing. Scrubber liquid will be replaced at the beginning of each process run and pH measured at the time of replacement.

The monitoring of this surrogate will assist in demonstrating compliance with the nitric acid limit found elsewhere in this permit.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 10.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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**DESCRIPTION**

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED

VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-12: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-12.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-POWFL

Process: PDR                      Emission Source: SCR01

Regulated Contaminant(s):

CAS No: 000050-00-0      FORMALDEHYDE

**Item 2-12.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of formaldehyde are limited to no more than  
0.017 pounds per hour.

Compliance testing shall be conducted at the discretion of  
the Department.

Upper Permit Limit: 0.017 pounds per hour

Reference Test Method: SW 846-0011

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 2-13: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-13.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-POWFL

Process: PDR                      Emission Source: SCR01

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Regulated Contaminant(s):

CAS No: 000050-00-0      FORMALDEHYDE

**Item 2-13.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The scrubber liquid shall have a minimum pH of at least 10.5 during processing. Scrubber liquid will be replaced at the beginning of each process run and pH measured at the time of replacement.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 10.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 1-25: Compliance Demonstration**

**Effective between the dates of 01/27/2003 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 1-25.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-POWFL

Process: PDR                      Emission Source: SCR01

**Item 1-25.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The permittee shall operate a continuous pressure and alarm device for monitoring scrubbing liquid pressure. The scrubbing liquid pressure shall remain within the range of 17-26 psig during processing. The alarm system shall be tested and pressure recorded at least once a shift when the control device is in operation. Set points for the alarm shall be set such that the alarm

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sounds if pressure is less than 19 psig or greater than 24 psig. In the event the alarm sounds, pressure readings will be recorded in a bound log book on a five minute basis until the alarm condition is rectified. The monitoring of this surrogate will assist in demonstrating effective removal of formaldehyde found elsewhere in this permit. This surrogate may need to be modified based upon stack test results.

Parameter Monitored: PRESSURE

Lower Permit Limit: 17 pounds per square inch gauge

Upper Permit Limit: 26 pounds per square inch gauge

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: RANGE - NOT TO FALL OUTSIDE OF STATED RANGE AT ANY TIME

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 3-3: Compliance Demonstration**

**Effective between the dates of 02/22/2006 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 3-3.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-SILOX

Process: AMM

Emission Source: AMSCB

**Item 3-3.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The scrubber liquid shall have a maximum pH of 3.5 during processing. Scrubber liquid will be replaced at the beginning of each process run and pH measured at the time of replacement. The monitoring of this surrogate will assist in demonstrating effective removal of ammonia and hydrazine.

Parameter Monitored: ACIDITY/ALKALINITY

Upper Permit Limit: 3.5 pH (STANDARD) units

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -



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SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 3-4: Compliance Demonstration**

**Effective between the dates of 02/22/2006 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 3-4.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-SILOX

Process: AMM

Emission Source: AMSCB

**Item 3-4.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL  
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

The source owner shall maintain a minimum pressure drop  
across the scrubber from this source of 3.5 inches water.

The monitoring of this surrogate will assist in  
demonstrating effective removal of ammonia and  
hydrazine.

Source owner shall operate a monitoring device that  
continuously measures and records the scrubber pressure  
drop. Pressure drop will be recorded in a bound log book  
at the start of each process run and an alarm will sound  
if the scrubber pump stops operating during process

Parameter Monitored: PRESSURE

Lower Permit Limit: 3.5 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE AT ANY TIME

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 2-14: Compliance Demonstration**

**Effective between the dates of 11/22/2004 and Permit Expiration Date**

**Applicable State Requirement: 6NYCRR 212.4(a)**

**Item 2-14.1:**

The Compliance Demonstration activity will be performed for:

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Emission Unit: U-SILOX Emission Point: AMSRB

Regulated Contaminant(s):

CAS No: 000302-01-2 HYDRAZINE

**Item 2-14.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Hydrazine is given an environmental rating of "A" per 6NYCRR 212.9(a) table 1. For an A - rated contaminant, having an ERP of <1 #/hr. the degree of treatment must be determined by the Commissioner. In order to mitigate potential adverse ambient impacts, the maximum hourly emission rate of hydrazine shall not exceed .00012 #/hr.

Compliance testing shall be conducted at the discretion of the Department.

Parameter Monitored: HYDRAZINE

Upper Permit Limit: 0.00012 pounds per hour

Reference Test Method: Method 18

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE