



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

**IDENTIFICATION INFORMATION**

Permit Type: Air State Facility  
Permit ID: 5-5205-00057/00006  
Effective Date: 07/14/2015 Expiration Date: 07/13/2025

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

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

Contact: MIKE DEL SIGNORE  
21 ROGERS ST  
GLENS FALLS, NY 12801  
(518) 792-5808

Description:  
Ames Goldsmith is a manufacturer of silver based products including, but not limited to, silver nitrate, silver oxide, silver powder and flake.

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: KEVIN R BLISS  
NYSDEC - WARRENSBURG SUBOFFICE  
232 GOLF COURSE RD  
WARRENSBURG, NY 12885-1172

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 compliance 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 any 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
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

**Facility Level**

- Submission of application for permit modification or renewal-REGION 5 SUBOFFICE - WARRENSBURG



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

**Condition 1: Facility Inspection by the Department**

**Applicable State Requirement: ECL 19-0305**

**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 requested by the Department.

**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 or facility. 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:**

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 3: Applications for permit renewals, modifications and transfers**

**Applicable State Requirement: 6 NYCRR 621.11**

**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.

**Item 3.3:**

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 4: Permit modifications, suspensions or revocations by the Department**  
**Applicable State Requirement: 6 NYCRR 621.13**

**Item 4.1:**

The Department reserves the right to exercise all available authority 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, 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.

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

**Condition 5: Submission of application for permit modification or renewal-REGION 5**  
**SUBOFFICE - WARRENSBURG**  
**Applicable State Requirement: 6 NYCRR 621.6 (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 Golf Course Road  
Warrensburg, NY 12885-1172  
(518) 623-1281

**New York State Department of Environmental Conservation**

Permit ID: 5-5205-00057/00006

Facility DEC ID: 5520500057



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

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

**IDENTIFICATION INFORMATION**

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

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

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

Permit Effective Date: 07/14/2015

Permit Expiration Date: 07/13/2025



**LIST OF CONDITIONS**

**FEDERALLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 1 6 NYCRR 211.1: Air pollution prohibited
- 2 6 NYCRR 212-1.6 (a): Compliance Demonstration
- 3 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 4 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 5 6 NYCRR 212-2.4 (b): Compliance Demonstration

**Emission Unit Level**

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

- 6 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 7 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 8 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 9 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 10 6 NYCRR 212-2.1 (b): Compliance Demonstration

**EU=U-00001,EP=1X500**

- 11 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 12 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 13 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 14 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 15 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 16 6 NYCRR 212-2.1 (b): Compliance Demonstration

**EU=U-CATRE,Proc=PRO,ES=SCR02**

- 17 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 18 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 19 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 20 6 NYCRR 212-2.1 (b): Compliance Demonstration

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

- 21 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 22 6 NYCRR 212-2.1 (b): Compliance Demonstration
- 23 6 NYCRR 212-2.1 (b): Compliance Demonstration



**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 24 ECL 19-0301: Contaminant List
- 25 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 26 6 NYCRR Subpart 201-5: Emission Unit Definition
- 27 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 28 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 29 6 NYCRR 211.2: Visible Emissions Limited

**Emission Unit Level**

- 30 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 31 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

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

- 32 6 NYCRR 212-2.1 (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 - 6 NYCRR 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 - 6 NYCRR 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 - 6 NYCRR 200.7**

Any person who owns or operates an air contamination 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 - 6 NYCRR 201-1.2**

If an existing emission source was subject to the permitting requirements of 6 NYCRR 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 - 6 NYCRR 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 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 - 6 NYCRR 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 - 6 NYCRR 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 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 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 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 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 6 NYCRR Subpart 202-1.

**Item K: Open Fires Prohibitions - 6 NYCRR 215.2**  
Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

**Item L: 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 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 M: 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 1: Air pollution prohibited**



Effective between the dates of 07/14/2015 and 07/13/2025

Applicable Federal Requirement:6 NYCRR 211.1

**Item 1.1:**

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 2: Compliance Demonstration**

Effective between the dates of 07/14/2015 and 07/13/2025

Applicable Federal Requirement:6 NYCRR 212-1.6 (a)

**Item 2.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 2.2:**

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  
DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 3: Compliance Demonstration**

Effective between the dates of 07/14/2015 and 07/13/2025

Applicable Federal Requirement:6 NYCRR 212-2.1 (b)

**Item 3.1:**

The Compliance Demonstration activity will be performed for the Facility.



**Item 3.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

In accordance with 6NYCRR 212-2.3(b) table 4, 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

**Condition 4: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 4.1:**

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

**Item 4.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

No person shall cause or allow emissions that exceed the permissible emission rate as determined from Table 4 of 6NYCRR Section 212-2.3 for the environmental rating assigned to the contaminant by the Department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



**Condition 5: Compliance Demonstration**  
Effective between the dates of 07/14/2015 and 07/13/2025

**Applicable Federal Requirement:6 NYCRR 212-2.4 (b)**

**Item 5.1:**

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 5.2:**

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

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

**Condition 6: Compliance Demonstration**  
Effective between the dates of 07/14/2015 and 07/13/2025

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 6.1:**

The Compliance Demonstration activity will be performed for:



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Facility DEC ID: 5520500057



DESCRIPTION  
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 8: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 8.1:**

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 8.2:**

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 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 shall not exceed 200 degrees F.

Parameter Monitored: TEMPERATURE  
Upper Permit Limit: 200 degrees Fahrenheit  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION  
Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION  
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 9: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 9.1:**

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

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Facility DEC ID: 5520500057



**Item 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 2.5 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: 2.5 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 10: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)**

**Item 10.1:**

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 10.2:**

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 pH will be measured at the beginning of each process run and recorded in a bound log book.

Parameter Monitored: ACIDITY/ALKALINITY

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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 11: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 11.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001                      Emission Point: 1X500

Regulated Contaminant(s):  
CAS No: 0NY210-00-0      OXIDES OF NITROGEN

**Item 11.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

A performance test demonstrating NOx removal shall be conducted at the discretion of the permitting authority. 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.

Parameter Monitored: OXIDES OF NITROGEN  
Lower Permit Limit: 94 percent reduction  
Reference Test Method: Method 7  
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 12: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 12.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001                      Emission Point: 2X500

**Item 12.2:**

Compliance Demonstration shall include the following monitoring:

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Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of nitric acid shall not exceed 0.04 pounds per hour from this emission point. Compliance testing may be required at the discretion of the Department.

Parameter Monitored: NITRIC ACID

Upper Permit Limit: 0.04 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 13: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 13.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-00001

Emission Point: 2X500

**Item 13.2:**

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

**Condition 14: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 14.1:**

The Compliance Demonstration activity will be performed for:

New York State Department of Environmental Conservation

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Facility DEC ID: 5520500057



Emission Unit: U-CATRE

Process: CAT

Emission Source: 00005

**Item 14.2:**

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 2 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: 2 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 15: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)**

**Item 15.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE

Process: CAT

Emission Source: 00005

Regulated Contaminant(s):

CAS No: 007697-37-2 NITRIC ACID

**Item 15.2:**

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 pH will be

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measured at the beginning of each process run and recorded in a bound log book.

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 16: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 16.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE  
Process: CAT Emission Source: 00005

Regulated Contaminant(s):  
CAS No: 007697-37-2 NITRIC ACID

**Item 16.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING  
Monitoring Description:

Emissions of nitric acid shall not exceed 0.08 pounds per hour from this emission point. Compliance testing may be required at the discretion of the Department.

Parameter Monitored: NITRIC ACID  
Upper Permit Limit: 0.08 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 17: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 17.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE



Process: PRO Emission Source: SCR02

Regulated Contaminant(s):  
CAS No: 007664-41-7 AMMONIA

**Item 17.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The source owner or operator shall maintain a minimum pressure drop from this source of 3.0 inches of water.

The owner or operator 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 the process.

Parameter Monitored: PRESSURE DROP

Lower Permit Limit: 3 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 18: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 18.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-CATRE  
Process: PRO Emission Source: SCR02

Regulated Contaminant(s):  
CAS No: 007664-41-7 AMMONIA

**Item 18.2:**

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 pH will be measured at the beginning of each process run and recorded in a bound log



book.

Parameter Monitored: ACIDITY/ALKALINITY  
Upper Permit Limit: 3.5 pH (STANDARD) units  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION  
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 19: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 19.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-POWFL  
Process: PDR Emission Source: AMSCB

Regulated Contaminant(s):  
CAS No: 000302-01-2 HYDRAZINE

**Item 19.2:**

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 pH will be measured at the beginning of each process run and recorded in a bound log book.

Parameter Monitored: ACIDITY/ALKALINITY  
Upper Permit Limit: 3.5 pH (STANDARD) units  
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION  
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION  
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 20: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 20.1:**

The Compliance Demonstration activity will be performed for:

Emission Unit: U-POWFL



Process: PDR Emission Source: AMSCB

Regulated Contaminant(s):  
CAS No: 000302-01-2 HYDRAZINE

**Item 20.2:**

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The source owner or operator shall maintain a minimum pressure drop from this source of 3.0 inches of water.

The owner or operator 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 the process.

Parameter Monitored: PRESSURE CHANGE

Lower Permit Limit: 3.0 inches of water

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING  
DESCRIPTION

Averaging Method: AVERAGING METHOD - SEE MONITORING  
DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 21: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 21.1:**

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 21.2:**

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 at or above 3.5

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inches of water during processing. The alarm system shall be tested and pressure recorded at least once a shift when the control device is in operation. 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.

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 22: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 22.1:**

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 22.2:**

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 pH will be measured at the beginning of each process run and recorded in a bound log book.

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 23: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**



**Applicable Federal Requirement:6 NYCRR 212-2.1 (b)**

**Item 23.1:**

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 23.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of Formaldehyde are limited to 0.017 pounds per hour.

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

Parameter Monitored: FORMALDEHYDE

Upper Permit Limit: 0.017 pounds per hour

Reference Test Method: Method 323

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



**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 - 6 NYCRR 201-1.10 (a)**

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

**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 law.

**STATE ONLY APPLICABLE REQUIREMENTS**

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

**Condition 24: Contaminant List**  
**Effective between the dates of 07/14/2015 and 07/13/2025**



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

**Item 24.1:**

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: 007664-41-7  
Name: AMMONIA

CAS No: 007697-37-2  
Name: NITRIC ACID

CAS No: 0NY075-00-0  
Name: PARTICULATES

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

**Condition 25: Malfunctions and start-up/shutdown activities  
Effective between the dates of 07/14/2015 and 07/13/2025**

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

**Item 25.1:**

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, 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 department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working



hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

**Condition 26: Emission Unit Definition**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

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

**Item 26.1:**

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 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.

Building(s): 1

**Item 26.2:**

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), two wet scrubbers (00005 & 00007), one oven, one dust collector and a melting unit which is exempt from permitting. Emission points include exhausts from the scrubbers, the oven and dust collector.

Building(s): 1

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**Item 26.3:**

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 process. Process PDR and Process AMM produce silver powder. Process SOH produces silver and tin oxide.

Building(s): 1  
3

**Item 26.4:**

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

Emission Unit: U-SILOX

Emission Unit Description:

This emission unit consists of Process SOX which produces silver oxide. Emission sources consist of: reactor kettles (sources K0006-11 and), drying ovens and sieves. Emission point EP RCT01 is a vent for reactors K0006 - 11. 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 27: Renewal deadlines for state facility permits**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable State Requirement:6 NYCRR 201-5.2 (c)**

**Item 27.1:**

The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Condition 28: Compliance Demonstration**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable State Requirement:6 NYCRR 201-5.3 (c)**

**Item 28.1:**

The Compliance Demonstration activity will be performed for the Facility.

**Item 28.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control

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Permit ID: 5-5205-00057/00006

Facility DEC ID: 5520500057



Engineer (RAPCE) at the following address:

Division of Air Resources
NYS Dept. of Environmental Conservation
Region 5
232 Golf Course Rd.
Warrensburg, NY 12885

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 29: Visible Emissions Limited
Effective between the dates of 07/14/2015 and 07/13/2025

Applicable State Requirement:6 NYCRR 211.2

Item 29.1:

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.

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

Condition 30: Emission Point Definition By Emission Unit
Effective between the dates of 07/14/2015 and 07/13/2025

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 30.1:

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
NYTMN (km.): 4796.42 NYTME (km.): 611.327 Building: 1

Emission Point: 2X500

Height (ft.): 27 Diameter (in.): 10
NYTMN (km.): 4796.42 NYTME (km.): 611.327 Building: 1

Emission Point: SCB02

Height (ft.): 27 Diameter (in.): 14
NYTMN (km.): 4796.42 NYTME (km.): 611.327 Building: 1

Item 30.2:

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

Emission Unit: U-CATRE

New York State Department of Environmental Conservation

Permit ID: 5-5205-00057/00006

Facility DEC ID: 5520500057



Emission Point: 00005  
Height (ft.): 20 Diameter (in.): 10  
NYTMN (km.): 4796.41 NYTME (km.): 611.313 Building: 1

Emission Point: 00007  
Height (ft.): 20 Diameter (in.): 10  
NYTMN (km.): 4796.41 NYTME (km.): 611.313 Building: 1

Emission Point: DTCLT  
Height (ft.): 10 Diameter (in.): 6  
NYTMN (km.): 4796.41 NYTME (km.): 611.313 Building: 1

Emission Point: OVNVT  
Height (ft.): 33 Diameter (in.): 8  
NYTMN (km.): 4796.41 NYTME (km.): 611.313 Building: 1

**Item 30.3:**

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

Emission Unit: U-POWFL

Emission Point: AMDST  
Height (ft.): 25 Diameter (in.): 4  
NYTMN (km.): 4796.43 NYTME (km.): 611.327 Building: 3

Emission Point: AMSRB  
Height (ft.): 30 Diameter (in.): 10  
NYTMN (km.): 4796.43 NYTME (km.): 611.327 Building: 3

Emission Point: DSTPF  
Height (ft.): 21 Diameter (in.): 7  
NYTMN (km.): 4796.4 NYTME (km.): 611.285 Building: 1

Emission Point: OVEN6  
Height (ft.): 28 Diameter (in.): 6  
NYTMN (km.): 4796.4 NYTME (km.): 611.285 Building: 3

Emission Point: OVEN9  
Height (ft.): 28 Diameter (in.): 6  
NYTMN (km.): 4796.4 NYTME (km.): 611.285 Building: 3

Emission Point: OVGRB  
Height (ft.): 9 Diameter (in.): 8  
NYTMN (km.): 4796.43 NYTME (km.): 611.327 Building: 3

Emission Point: OVN10  
Height (ft.): 28 Diameter (in.): 6  
NYTMN (km.): 4796.4 NYTME (km.): 611.285 Building: 3

Emission Point: OVN11  
Height (ft.): 28 Diameter (in.): 6  
NYTMN (km.): 4796.4 NYTME (km.): 611.285 Building: 3



Emission Point: OVN12			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVN13			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVN14			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVN15			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVN16			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVN17			
Height (ft.): 28	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 3	
Emission Point: OVP02			
Height (ft.): 33	Diameter (in.): 6		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 1	
Emission Point: OVVAC			
Height (ft.): 19	Diameter (in.): 6		
NYTMN (km.): 4796.43	NYTME (km.): 611.327	Building: 3	
Emission Point: SCB01			
Height (ft.): 60	Diameter (in.): 10		
NYTMN (km.): 4796.4	NYTME (km.): 611.285	Building: 1	
Emission Point: VENT1			
Height (ft.): 14	Diameter (in.): 14		
NYTMN (km.): 4796.43	NYTME (km.): 611.327	Building: 3	
Emission Point: VENT2			
Height (ft.): 14	Diameter (in.): 14		
NYTMN (km.): 4796.43	NYTME (km.): 611.327	Building: 3	

**Item 30.4:**

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

Emission Unit: U-SILOX

Emission Point: OVP01			
Height (ft.): 33	Length (in.): 5	Width (in.): 5	



NYTMN (km.): 4796.43    NYTME (km.): 611.327    Building: 1

Emission Point: OVP03  
Height (ft.): 33    Length (in.): 5    Width (in.): 5  
NYTMN (km.): 4796.43    NYTME (km.): 611.327    Building: 1

Emission Point: RCT01  
Height (ft.): 27    Diameter (in.): 9  
NYTMN (km.): 4796.43    NYTME (km.): 611.327    Building: 1

Emission Point: VENT3  
Height (ft.): 14    Diameter (in.): 18  
NYTMN (km.): 4796.43    NYTME (km.): 611.327    Building: 3

**Condition 31:    Process Definition By Emission Unit**  
**Effective between the dates of 07/14/2015 and 07/13/2025**

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

**Item 31.1:**

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

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 31.2:**

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.

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

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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 31.3:**

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

Emission Unit: U-00001

Process: FUM

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 effective emissions control device for a full conversion of the facility to the "NO<sub>x</sub> free" technology.

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

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: K00F1 - Process  
Design Capacity: 500 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

**Item 31.4:**

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 three steam jacketed reactors and heated. The process is allowed to continue until silver nitrate is formed. The

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silver nitrate solution from these reactors will then be further refined in EU 00001, process 111.

This process produces significantly less NOx 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 "NOx free" silver nitrate production. Data obtained while operating this process may later be used to design an 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 31.5:**

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: SCR02 - Control  
Control Type: WET SCRUBBER

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

**Item 31.6:**

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: FF0P3 - Process

Emission Source/Control: K0016 - Process

Emission Source/Control: K0017 - Process

Emission Source/Control: K0018 - Process

Emission Source/Control: K0019 - Process

**Item 31.7:**

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

Emission Unit: U-CATRE

Process: PRO

Process Description:

Ammonia solution is prepared in a holding tank and sent through one of 3 ion exchange columns to strip promoter

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from the resin. After passing through the column, the solution is transferred to a final cook down tank for concentration and sampling.

Emission Source/Control: SCR02 - Control  
Control Type: WET SCRUBBER

Emission Source/Control: ASTNK - Process

Emission Source/Control: CDTNK - Process

Emission Source/Control: CLMN1 - Process

Emission Source/Control: CLMN2 - Process

Emission Source/Control: CLMN3 - Process

**Item 31.8:**

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

Emission Unit: U-POWFL

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 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

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

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

**Item 31.9:**

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.



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

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 31.10:**

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

Emission Unit: U-POWFL

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

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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: K0012 - Process

Emission Source/Control: OVEN4 - Process

**Item 31.11:**

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

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: 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: PCK02 - Process

**Condition 32: Compliance Demonstration**

**Effective between the dates of 07/14/2015 and 07/13/2025**

**Applicable State Requirement:6 NYCRR 212-2.1 (a)**

**Item 32.1:**

The Compliance Demonstration activity will be performed for:

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Emission Unit: U-POWFL

Emission Point: AMSRB

Regulated Contaminant(s):

CAS No: 000302-01-2      HYDRAZINE

**Item 32.2:**

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Emissions of Hydrazine are limited to 0.00012 pounds per hour.

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 AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

