



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

**IDENTIFICATION INFORMATION**

Permit Type: Air Title V Facility  
Permit ID: 9-1402-00435/00037  
Effective Date: 06/24/2009 Expiration Date: 06/23/2014

Permit Issued To: P V S CHEMICALS INC  
55 LEE ST  
BUFFALO, NY 14210-2109

Contact: CHRISTOPHER J CANCELLA  
PVS CHEMICALS INC  
55 LEE ST  
BUFFALO, NY 14210  
(716) 825-5762

Facility: PVS CHEMICALS  
55 LEE ST  
BUFFALO, NY 14210

**Description:**

PVS Chemicals, Inc. (New York) is a manufacturer of all strengths and grades of sulfuric acid and oleum using the contact process. Other substances produced and stored at this facility include ammonium thiosulfate, sodium bisulfite, diethanolamine sulfur dioxide adduct, etc. Raw materials for these processes are molten sulfur, spent sulfuric acid, anhydrous ammonia, liquid sulfur dioxide, sodium hydroxide, sodium carbonate, diethanolamine, etc. This facility is also a shipping terminal for hydrochloric acid.

The PVS Chemicals facility has the potential-to-emit sulfur dioxide at a rate greater than 250 tons per year and sulfuric acid mist at a rate greater than 100 tons per year but less than 250 tons per year. These emission rates are above the major source thresholds of 100 tons per year. Therefore, the facility requires this Title V operating permit.

This Title V facility permit for PVS Chemicals contains all of the air emission sources at the facility organized as emission units. Each of the emission units contains emission sources with similar air pollution control requirements. All applicable air pollution control requirements are listed in this permit along with the appropriate monitoring, record keeping and reporting necessary to determine the compliance status of the facility. A general discussion of the Title V permit requirements follows.

**Facility level requirements:**

All of the permit requirements that apply to the entire facility are included in the facility section of the permit. These include all of the generally applicable air pollution control requirements that are part of every Title V facility permit issued in New York. Of specific note are conditions under 6 NYCRR Parts 202-2 and 201-6 that specify the submission of an annual facility emission statement, and annual and semi-annual compliance monitoring reports.



Emission Unit U-00010:

This emission unit is composed of four chemical bulk storage tanks which store spent sulfuric acid received at the facility in tank trailer and tank car quantities. Two of the tanks (#113 & 116) vent directly to atmosphere. The other two tanks (#102 & 103) vent to a scrubber which removes sulfur dioxide. The contents of these two tanks must be maintained under negative pressure at all times, with daily verification by the operator. The packed wet scrubber is subject to 6NYCRR Part 212.9 and must be operated at all times, with hourly verification of fluid flow through the scrubber and continuous monitoring of pH which must be maintained at or above 7.5 units. Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

Emission Unit U-00020:

This emission unit is composed of equipment and processes necessary to generate sulfur dioxide by thermally decomposing spent sulfuric acid or by burning elemental sulfur in the presence of excess oxygen; and catalytically converting sulfur dioxide to sulfur trioxide which is then absorbed in strong sulfuric acid to produce saleable commercial grades of sulfuric acid and oleum.

In 2003 a scrubber was installed which uses an alkaline solution to remove sulfur dioxide from the process exhaust before being emitted at EP00005. The scrubber was tested and found to be more than 90% efficient at removing sulfur dioxide. The permit contains a condition requiring the scrubber to undergo performance testing at least once every five years. The scrubber is subject to 40 CFR 52 Compliance Assurance Monitoring (CAM). The indicators specified in the CAM Plan are the scrubber solution pH in both the upper and lower sections of the scrubber, and the scrubber solution flow rate.

The permit also requires physical observation for visible opacity at emission point 00005 two times per hour in accordance with 6NYCRR Part 212.6.

Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

Emission Unit U-00030:

This emission unit is composed of the molten sulfur and sulfuric acid storage tanks located at the facility. The processes associated with this emission unit have emissions of regulated air pollutants at insignificant levels. No specific federally enforceable conditions are associated with this emission unit with the exception of a general requirement that PVS maintain records indicating that emissions from this unit remain at insignificant levels.

Emission Unit U-00040:

This emission unit is composed of the high purity sulfuric acid processes, including all of the associated processing, storage, and air pollution control equipment. The permit requires physical observation for visible opacity at emission point 00006 once per hour per 6NYCRR Part 212.6. The packed wet scrubber is subject to 6NYCRR Part 212.9 and must be operated at all times, with hourly verification of fluid flow through the scrubber and continuous monitoring of the acid strength of the scrubber fluid. The acid



strength must remain at or above 98 percent. Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

Emission Unit U-00050:

This emission unit is composed of a series of 31% and 35% hydrochloric acid tanks that are connected in a vent manifold and vented through a wet scrubber. Emissions from this unit are insignificant; therefore, no specific federally enforceable regulatory requirements apply with the exception of a general requirement that PVS maintain records indicating that emissions from this unit remain at insignificant levels. The emission limitations are included in the state enforceable only section of this Title V permit and as such will not be federally enforceable

Emission Unit U-00060:

This emission unit includes all equipment and processes necessary to produce ammonium thiosulfate solution. All process gases are vented through an alkaline scrubber to remove sulfur dioxide and an acidic scrubber to remove ammonia. The scrubbers are regulated by 6NYCRR Part 212.9. The alkaline scrubber fluid must be maintained at a pH of at least 5.5 units. The acidic scrubber fluid must be maintained at a pH of less than 7.0 units. The permit also requires physical observation for visible opacity at emission point 00160 daily in accordance with 6NYCRR Part 212.6. Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

Emission Unit U-00070:

This emission unit includes a batch reactor where aqueous diethanolamine sulfur dioxide adduct is formed, and associated storage tanks. Emissions from this unit are insignificant, therefore, no specific federally enforceable regulatory requirements apply with the exception of a general requirement that PVS maintain records indicating that emissions from this unit remain at insignificant levels. The emission limitations are included in the state enforceable only section of this Title V permit and as such will not be federally enforceable.

Emission Unit U-00080:

This emission unit includes packed towers where aqueous sodium bisulfite is formed by combining sulfur dioxide and water with sodium carbonate or sodium hydroxide. The reaction is carried out with gas flowing countercurrent to liquid. Process gasses are vented to an alkaline scrubber to remove sulfur dioxide. Also included are three sodium bisulfite storage tanks. The scrubber is regulated by 6NYCRR Part 212.9 and must maintain a pH of at least 7.5 units and control sulfur dioxide emissions to a minimum of 91%. Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

Emission Unit U-00090:

This emission unit consists of a 25 million Btu per hour boiler that can burn natural gas, number 2 or number 3 fuel oil. This boiler provides steam for use at various processes throughout the facility. Opacity of emissions from the boiler is limited per 6



NYCRR Part 227-1 and the boiler must burn low sulfur fuel oil per 6 NYCRR Part 225-1. Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

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:            DOUGLAS E BORSCHEL  
   270 MICHIGAN AVE  
   BUFFALO, NY 14203-2999

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
  - Permit modifications, suspensions or revocations by the Department

#### **Facility Level**

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



**DEC GENERAL CONDITIONS**

\*\*\*\* General Provisions \*\*\*\*

**For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.**

**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: 6NYCRR 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: 6NYCRR 621.13**

**Item 4.1:**

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

**Item 5.1:**

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, 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 6: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS**  
**Applicable State Requirement: 6NYCRR 621.6(a)**

**Item 6.1:**

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

NYSDEC Regional Permit Administrator  
Region 9 Headquarters  
Division of Environmental Permits  
270 Michigan Avenue  
Buffalo, NY 14203-2915  
(716) 851-7165



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

**ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT**

**IDENTIFICATION INFORMATION**

Permit Issued To: P V S CHEMICALS INC  
55 LEE ST  
BUFFALO, NY 14210-2109

Facility: PVS CHEMICALS  
55 LEE ST  
BUFFALO, NY 14210

Authorized Activity By Standard Industrial Classification Code:  
2819 - INDUSTRIAL INORGANIC CHEMICALS  
9999 - NONCLASSIFIABLE ESTABLISHMENTS

Permit Effective Date: 06/24/2009

Permit Expiration Date: 06/23/2014



## LIST OF CONDITIONS

### FEDERALLY ENFORCEABLE CONDITIONS

#### Facility Level

- 1 6NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6NYCRR 201-6.5(a)(7): Fees
- 3 6NYCRR 201-6.5(c): Recordkeeping and reporting of compliance monitoring
- 4 6NYCRR 201-6.5(c)(2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 5 6NYCRR 201-6.5(c)(3)(ii): Compliance Certification
- 6 6NYCRR 201-6.5(e): Compliance Certification
- 7 6NYCRR 202-2.1: Compliance Certification
- 8 6NYCRR 202-2.5: Recordkeeping requirements
- 9 6NYCRR 215: Open Fires Prohibited at Industrial and Commercial Sites
- 10 6NYCRR 200.7: Maintenance of Equipment
- 11 6NYCRR 201-1.7: Recycling and Salvage
- 12 6NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6NYCRR 201-3.2(a): Exempt Sources - Proof of Eligibility
- 14 6NYCRR 201-3.3(a): Trivial Sources - Proof of Eligibility
- 15 6NYCRR 201-6.5(a)(4): Standard Requirement - Provide Information
- 16 6NYCRR 201-6.5(a)(8): General Condition - Right to Inspect
- 17 6NYCRR 201-6.5(d)(5): Standard Requirements - Progress Reports
- 18 6NYCRR 201-6.5(f)(6): Off Permit Changes
- 19 6NYCRR 202-1.1: Required Emissions Tests
- 20 6NYCRR 211.3: Visible Emissions Limited
- 21 40CFR 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6NYCRR 201-6: Emission Unit Definition
- 24 6NYCRR 212.6(a): Compliance Certification
- 25 6NYCRR 212.9: Compliance Certification
- 26 6NYCRR 225-1.2(a)(2): Compliance Certification

#### Emission Unit Level

- 27 6NYCRR 201-6: Emission Point Definition By Emission Unit
- 28 6NYCRR 201-6: Process Definition By Emission Unit

#### **EU=U-00010,EP=00102,Proc=020,ES=00104**

- 29 6NYCRR 212.9: Compliance Certification

#### **EU=U-00020**

- 30 40CFR 64: Compliance Certification

#### **EU=U-00020,EP=00005,Proc=002,ES=00005**

- 31 6NYCRR 212.6(a): Compliance Certification

#### **EU=U-00020,EP=00005,Proc=002,ES=00007**

- 32 6NYCRR 212.9: Compliance Certification
- 33 6NYCRR 212.9: Compliance Certification
- 34 6NYCRR 212.9: Compliance Certification
- 35 6NYCRR 212.9: Compliance Certification



**EU=U-00040,EP=00006**

- 36 6NYCRR 212.6(a): Compliance Certification
- 37 6NYCRR 212.9: Compliance Certification

**EU=U-00050,EP=00150**

- 38 6NYCRR 212.4(a): Compliance Certification

**EU=U-00060,EP=00160,Proc=012,ES=00160**

- 39 6NYCRR 212.9: Compliance Certification

**EU=U-00060,EP=00160,Proc=012,ES=00161**

- 40 6NYCRR 212.9: Compliance Certification

**EU=U-00070,EP=00170**

- 41 6NYCRR 212.4(a): Compliance Certification

**EU=U-00080,Proc=016,ES=00181**

- 42 6NYCRR 212.9: Compliance Certification

**EU=U-00080,EP=00182,Proc=015,ES=00182**

- 43 6NYCRR 212.9: Compliance Certification
- 44 6NYCRR 212.9: Compliance Certification

**EU=U-00090**

- 45 6NYCRR 227-1.3(a): Compliance Certification

**STATE ONLY ENFORCEABLE CONDITIONS**

**Facility Level**

- 46 ECL 19-0301: Contaminant List
- 47 6NYCRR 201-1.4: Unavoidable noncompliance and violations
- 48 6NYCRR 211.2: Air pollution prohibited



**FEDERALLY ENFORCEABLE CONDITIONS**

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

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.**

**Item A: 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 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 B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.



- Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)**  
Owners and/or operators of facilities having an issued Title V 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.
- Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)**  
Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)**  
The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**  
This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)**  
It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.
- Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)**  
This permit does not convey any property rights of any sort or any exclusive privilege.
- Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)**



If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the



effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**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.





(ii) The date(s) analyses were performed;

(iii) The company or entity that performed the analyses;

(iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;

(v) The results of such analyses including quality assurance data where required; and

(vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

**Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement: 6NYCRR 201-6.5(c)(2)**

**Item 4.1:**

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**Condition 5: Compliance Certification**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement: 6NYCRR 201-6.5(c)(3)(ii)**

**Item 5.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 5.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible



official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If any of the above conditions are met, the source must notify the permitting authority by telephone during normal business hours at the Regional Office of jurisdiction for this permit, attention Regional Air Pollution Control Engineer (RAPCE) according to the timetable listed in paragraphs (1) through (4) of this section. For deviations and incidences that must be reported outside of normal business hours, on weekends, or holidays, the DEC Spill Hotline phone number at 1-800-457-7362 shall be used. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraph (1) through (4) of this section must also be identified in the 6 month monitoring report required above.





Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
  - the identification of each term or condition of the permit that is the basis of the certification;
  - the compliance status;
  - whether compliance was continuous or intermittent;
  - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
  - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions;and
  - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Compliance Monitoring and Enforcement (BCME) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA representative for the Administrator, at the following address:







**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-1.8**

**Item 12.1:**

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.

**Condition 13: Exempt Sources - Proof of Eligibility**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-3.2(a)**

**Item 13.1:**

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 this Subpart. 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 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.

**Condition 14: Trivial Sources - Proof of Eligibility**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-3.3(a)**

**Item 14.1:**

The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. 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 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.

**Condition 15: Standard Requirement - Provide Information**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6.5(a)(4)**

**Item 15.1:**

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.



**Condition 16: General Condition - Right to Inspect**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6.5(a)(8)**

**Item 16.1:**

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Standard Requirements - Progress Reports**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6.5(d)(5)**

**Item 17.1:**

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**Condition 18: Off Permit Changes**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6.5(f)(6)**

**Item 18.1:**

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below



in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

(ii) The permit shield described in section 6 NYCRR 201-6.6 shall not apply to any change made pursuant to this paragraph.

**Condition 19: Required Emissions Tests**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 202-1.1**

**Item 19.1:**

For the purpose of ascertaining compliance or non-compliance with any air pollution control code, rule or regulation, the commissioner may require the person who owns such air contamination source to submit an acceptable report of measured emissions within a stated time. Such person shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the commissioner within the time stated shall be sufficient reason for the commissioner to suspend or deny a certificate to operate.

**Condition 20: Visible Emissions Limited**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 211.3**

**Item 20.1:**

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.

**Condition 21: Accidental release provisions.**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:40CFR 68**

**Item 21.1:**

If a chemical is listed in Tables 1,2,3 or 4 of 40 CFR §68.130 is present in a process in quantities greater than the threshold quantity listed in Tables 1,2,3 or 4, the following requirements will apply:

a) The owner or operator shall comply with the provisions of 40 CFR Part 68 and;

b) The owner or operator shall submit at the time of permit issuance (if not previously submitted) one of the following, if such quantities are present:

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



2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan. Information should be submitted to:

Risk Management Plan Reporting Center  
C/O CSC  
8400 Corporate Dr  
Carrollton, Md. 20785

**Condition 22: Recycling and Emissions Reduction**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:40CFR 82, Subpart F**

**Item 22.1:**

The permittee shall comply with all applicable provisions of 40 CFR Part 82.

**The following conditions are subject to annual compliance certification requirements for Title V permits only.**

**Condition 23: Emission Unit Definition**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 23.1:**

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

Emission Unit: U-00010

Emission Unit Description:

Spent sulfuric acid is received at PVS (NY) in tank trailer and tank car quantities and transferred into one of four storage tanks. This emission unit is comprised of four bulk chemical tanks storing spent sulfuric acid. Two tanks vent to atmosphere, two tanks vent to scrubber. Spent sulfuric acid is generally comprised of 60%-95% H<sub>2</sub>SO<sub>4</sub>, with hydrocarbons and water as contaminants.

Building(s): YARD

**Item 23.2:**

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

Emission Unit: U-00020

Emission Unit Description:

Sulfur dioxide (SO<sub>2</sub>) is generated by thermally decomposing spent sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) or by burning elemental sulfur in the presence of excess oxygen. The SO<sub>2</sub> is then catalytically converted to sulfur trioxide (SO<sub>3</sub>) and absorbed in strong sulfuric acid to produce saleable commercial grades of sulfuric acid and fuming sulfuric



acid (oleum).

Building(s): B3  
YARD

**Item 23.3:**

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

Emission Unit: U-00030

Emission Unit Description:

Molten sulfur is received from off-site and transferred into storage vessels to satisfy production demand. Also, during the course of production and sales, sulfuric acid storage tanks are filled and emptied. This emission unit is comprised of all molten sulfur and sulfuric acid storage tanks at PVS (NY).

Building(s): YARD

**Item 23.4:**

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

Emission Unit: U-00040

Emission Unit Description:

As sales distribution mandates, sulfur trioxide (SO<sub>3</sub>) is stripped from a stream of fuming sulfuric acid in an evaporator. The SO<sub>3</sub> is combined with pure water in a specially constructed absorption column to form high purity sulfuric acid. The high purity sulfuric acid process is connected to a scrubber which removes free SO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub> aerosol from the gas stream before being emitted. There are several tanks associated with the high purity sulfuric acid process.

Building(s): B2

**Item 23.5:**

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

Emission Unit: U-00050

Emission Unit Description:

A series of 31% and 35% hydrochloric acid storage tanks are connected in a vent manifold and vented through a wet scrubber. Activities at this emission unit include transfers to and from the storage tanks.

Building(s): YARD

**Item 23.6:**

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

Emission Unit: U-00060

Emission Unit Description:

Sulfur dioxide, ammonia and water are combined to form an aqueous mixture of ammonium sulfite and ammonium bisulfite. All ammonium bisulfite is then driven to sulfite with the addition of ammonia. The ammonium sulfite



is heated and excess sulfur is added to produce ammonium thiosulfate solution. All process gases are vented through a scrubber system before being exhausted to atmosphere.

Building(s): B4

**Item 23.7:**

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

Emission Unit: U-00070

Emission Unit Description:

Pure sulfur dioxide is combined with aqueous diethanolamine solution to form aqueous diethanolamine sulfur dioxide adduct in a batch reactor. Excess sulfur dioxide is vented to an alkaline scrubber where process exhaust occurs. This emission unit also includes an aqueous diethanolamine storage tank and an aqueous diethanolamine sulfur dioxide adduct storage tank.

Building(s): B5

**Item 23.8:**

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

Emission Unit: U-00080

Emission Unit Description:

Aqueous sodium bisulfite is formed by combining sulfur dioxide and water with sodium carbonate or sodium hydroxide. Reaction is carried out in packed towers with gas flowing countercurrent to liquid followed by liquid finishing in tanks to meet product specifications. Process gasses are vented to an alkaline scrubber to remove SO<sub>2</sub>. This emission unit includes a vent manifold for three sodium bisulfite storage tanks and a bulk sodium carbonate receiving system.

Building(s): B3

**Item 23.9:**

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

Emission Unit: U-00090

Emission Unit Description:

Natural gas or #2/#3 fuel oil is burned in a 25.0 MBtu/hr package boiler to generate steam for the facility.

Building(s): B1

**Condition 24: Compliance Certification**

**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 24.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:



Emission Unit: U-00060  
Process: 012

Emission Source: 00161

Emission Unit: U-00060  
Process: 012

Emission Source: 00160

Regulated Contaminant(s):

CAS No: 010196-04-0 SULFUROUS ACID, DIAMMONIUM SALT

**Item 24.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The facility owner and/or operator shall physically observe emission point 00160 daily to monitor for unusual opacity conditions. If visible emissions above those that are normal and in compliance with section 212.6(a) are detected (this may be zero percent opacity for many or all stacks), the facility owner shall determine the cause immediately and make the necessary correction. The records of these observations will be recorded in a log at the facility and shall be available for inspection by Department representatives upon request. Records will be maintained for a period of at least five years.

If visible emissions above those that are normal and in compliance continue to be present after corrections are made, the facility owner will conduct a Method 9 assessment to determine the degree of opacity.

If the opacity is determined to exceed the limits of section 212.6(a), the facility will be determined to be in violation, will remedy the problem, and will contact the Department. The provisions of Part 201-1.4 shall apply.

PVS maintains a video monitor which is used to periodically observe emission point 00160 for unusual opacity conditions and hastens operator response to opacity problems.

A semi-annual report shall be submitted to the Department that summarizes the opacity compliance history of the emission point for the previous six months.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Monitoring Frequency: DAILY

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



Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 25: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 25.1:**

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00010

Process: 020

Emission Source: 00102

Emission Unit: U-00010

Process: 020

Emission Source: 00103

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

**Item 25.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Storage tanks #102 & #103 shall be maintained under negative pressure from the scrubber system at all times. A daily check must be made to verify that the scrubber system is operating under negative pressure. The results of each daily observation must be recorded in a log.

Monitoring Frequency: DAILY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 26: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 225-1.2(a)(2)**

**Item 26.1:**

The Compliance Certification activity will be performed for the Facility.

**Item 26.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS



Monitoring Description:

No person will sell, offer for sale, purchase or use any distillate oil fuel which contains sulfur in a quantity exceeding the following limitation.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 1.10 percent by weight
Monitoring Frequency: PER BATCH OF PRODUCT/RAW MATERIAL CHANGE
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2009.
Subsequent reports are due every 6 calendar month(s).

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

Condition 27: Emission Point Definition By Emission Unit
Effective between the dates of 06/24/2009 and 06/23/2014

Applicable Federal Requirement:6NYCRR 201-6

Item 27.1:

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

- Emission Unit: U-00010
Emission Point: 00024
Height (ft.): 40 Diameter (in.): 3
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD
Emission Point: 00102
Height (ft.): 45 Diameter (in.): 6
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD
Emission Point: 00113
Height (ft.): 40 Diameter (in.): 3
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Item 27.2:

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

- Emission Unit: U-00020
Emission Point: 00005
Height (ft.): 75 Diameter (in.): 42
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

**Item 27.3:**

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

Emission Unit: U-00030

Emission Point: 00018  
 Height (ft.): 24 Diameter (in.): 8  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00019  
 Height (ft.): 38 Diameter (in.): 6  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00020  
 Height (ft.): 38 Diameter (in.): 5  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00022  
 Height (ft.): 40 Diameter (in.): 3  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00023  
 Height (ft.): 40 Diameter (in.): 3  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00029  
 Height (ft.): 2 Length (in.): 26 Width (in.): 18  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Emission Point: 00070  
 Height (ft.): 21 Diameter (in.): 4  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

**Item 27.4:**

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

Emission Unit: U-00040

Emission Point: 00006  
 Height (ft.): 28 Diameter (in.): 6  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00141  
 Height (ft.): 10 Diameter (in.): 4  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00142  
 Height (ft.): 10 Diameter (in.): 4  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00143  
 Height (ft.): 10 Diameter (in.): 4  
 NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2



Emission Point: 00144  
Height (ft.): 10                      Diameter (in.): 4  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B2

**Item 27.5:**

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

Emission Unit: U-00050

Emission Point: 00150  
Height (ft.): 20                      Diameter (in.): 10  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: YARD

**Item 27.6:**

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

Emission Unit: U-00060

Emission Point: 00160  
Height (ft.): 46                      Diameter (in.): 12  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B4

**Item 27.7:**

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

Emission Unit: U-00070

Emission Point: 00170  
Height (ft.): 15                      Diameter (in.): 8  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B5

Emission Point: 00171  
Height (ft.): 12                      Diameter (in.): 4  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B5

Emission Point: 00172  
Height (ft.): 12                      Diameter (in.): 4  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B5

**Item 27.8:**

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

Emission Unit: U-00080

Emission Point: 00180  
Height (ft.): 24                      Diameter (in.): 2  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B3

Emission Point: 00181  
Height (ft.): 40                      Diameter (in.): 6  
NYTMN (km.): 4752.92      NYTME (km.): 186.109      Building: B3



Emission Point: 00182  
Height (ft.): 35 Diameter (in.): 10  
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B3

**Item 27.9:**

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

Emission Unit: U-00090

Emission Point: 00028  
Height (ft.): 40 Diameter (in.): 18  
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B1

**Condition 28: Process Definition By Emission Unit**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 201-6**

**Item 28.1:**

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

Emission Unit: U-00010  
Process: 001 Source Classification Code: 3-01-023-21

Process Description:

Spent sulfuric acid is received from off-site in railroad tank cars and in tank trailers. As spent sulfuric acid is transferred into a storage tank, the tank is vented to the atmosphere through a flame arrester. There are two spent sulfuric acid storage tanks for this process on site which can receive spent sulfuric acid at any time of day or night.

Emission Source/Control: 00024 - Process  
Design Capacity: 150 1000 gallons

Emission Source/Control: 00113 - Process  
Design Capacity: 150 1000 gallons

**Item 28.2:**

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

Emission Unit: U-00010  
Process: 020 Source Classification Code: 3-01-023-21

Process Description:

Spent sulfuric acid is received from off-site in railroad tank cars and in tank trailers. As spent sulfuric acid is transferred into a storage tank, the tank is vented through a scrubber to remove SO<sub>2</sub>. This process describes two spent sulfuric acid storage tanks which can receive spent sulfuric acid at any time of day or night.

Emission Source/Control: 00104 - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)



Emission Source/Control: 00102 - Process  
Design Capacity: 75 1000 gallons

Emission Source/Control: 00103 - Process  
Design Capacity: 75 1000 gallons

**Item 28.3:**

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

Emission Unit: U-00020

Process: 002

Source Classification Code: 3-01-023-01

Process Description:

Sulfur dioxide (SO<sub>2</sub>) is generated by thermally decomposing spent sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) or by burning elemental sulfur in the presence of excess oxygen. The SO<sub>2</sub> is then catalytically converted to sulfur trioxide (SO<sub>3</sub>) and absorbed in strong sulfuric acid to produce saleable commercial grades of sulfuric acid and fuming sulfuric acid (oleum).

Emission Source/Control: 00005 - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: 00007 - Control  
Control Type: CHEMICAL NEUTRALIZATION

Emission Source/Control: 0006A - Control  
Control Type: MIST ELIMINATOR

Emission Source/Control: 00003 - Process  
Design Capacity: 220 tons per day

Emission Source/Control: 00004 - Process  
Design Capacity: 220 tons per day

**Item 28.4:**

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

Emission Unit: U-00030

Process: 003

Source Classification Code: 3-99-999-94

Process Description:

Molten sulfur is received from off-site in railroad tank cars and in tank trailers. As molten sulfur is transferred into a storage tank, the tank is vented to the atmosphere. Some breathing losses also occur at the storage vessel. There are two molten sulfur storage vessels on site which can receive molten sulfur at any time of day or night.

Emission Source/Control: 00018 - Process  
Design Capacity: 1,000 tons

Emission Source/Control: 00029 - Process



Design Capacity: 100 tons

**Item 28.5:**

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

Emission Unit: U-00030

Process: 004

Source Classification Code: 3-99-999-94

Process Description:

As sulfuric acid is added to a storage vessel, the storage vessel is vented to the atmosphere. Some breathing losses also occur at the storage vessel. There are a total of six vessels storing sulfuric acid.

Emission Source/Control: 00019 - Process

Design Capacity: 75 1000 gallons

Emission Source/Control: 00020 - Process

Design Capacity: 75 1000 gallons

Emission Source/Control: 00022 - Process

Design Capacity: 150 1000 gallons

Emission Source/Control: 00023 - Process

Design Capacity: 150 1000 gallons

Emission Source/Control: 00070 - Process

Design Capacity: 12 1000 gallons

**Item 28.6:**

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

Emission Unit: U-00040

Process: 005

Source Classification Code: 3-01-023-21

Process Description:

Gaseous sulfur trioxide (SO<sub>3</sub>) is absorbed into strong sulfuric acid in two absorption towers to form fuming sulfuric acid (oleum). The two pump tanks used for circulating the oleum over the towers are vented to the oleum scrubber.

Emission Source/Control: 00006 - Control

Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00025 - Process

Design Capacity: 26,000 tons per year

**Item 28.7:**

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

Emission Unit: U-00040

Process: 009

Source Classification Code: 3-01-023-21

Process Description:

Sulfur trioxide is stripped from a stream of fuming



sulfuric acid in an evaporator. The SO<sub>3</sub> mixed with pure dry air is then combined with pure water in a specially constructed absorption column to form high purity sulfuric acid. As the dry air exits the process, it carries sulfuric acid mist. This specially construction absorption column is vented to the oleum scrubber. Finished product is transferred to a series of storage tanks which are vented to atmosphere.

Emission Source/Control: 00006 - Control  
Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00140 - Process  
Design Capacity: 25,000 tons per year

Emission Source/Control: 00141 - Process  
Design Capacity: 5 1000 gallons

Emission Source/Control: 00142 - Process  
Design Capacity: 5 1000 gallons

Emission Source/Control: 00143 - Process  
Design Capacity: 5 1000 gallons

Emission Source/Control: 00144 - Process  
Design Capacity: 5 1000 gallons

**Item 28.8:**

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

Emission Unit: U-00050  
Process: 010 Source Classification Code: 3-01-011-98  
Process Description:

Hydrochloric acid at strengths ranging from 30% to 35% is received in railroad tank cars and tank trailers. The HCL transferred from the shipping containers into a series of three storage tanks all connected with a common vent header. The vent header vents through a scrubber before being exhausted to atmosphere.

Emission Source/Control: 00150 - Control  
Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: 00151 - Process  
Design Capacity: 25,000 gallons

Emission Source/Control: 00152 - Process  
Design Capacity: 25,000 gallons

Emission Source/Control: 00153 - Process  
Design Capacity: 25,000 gallons

**Item 28.9:**



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

Emission Unit: U-00050

Process: 011

Source Classification Code: 3-01-011-98

Process Description:

Hydrochloric acid at strengths ranging from 30% to 35% is received in railroad tank cars and tank trailers. The HCL is transferred from the shipping containers into a series of nine storage tanks. The HCL is then transferred into shipping vessels for distribution. Transfer operations are vented back to the vent header and then through a scrubber before being exhausted to atmosphere.

Emission Source/Control: 00150 - Control

Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: 00159 - Process

Design Capacity: 10,000 tons per year

**Item 28.10:**

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

Emission Unit: U-00060

Process: 012

Source Classification Code: 3-01-999-98

Process Description:

Sulfur dioxide, ammonia and water are combined in a gassing tank to form an aqueous mixture of ammonium sulfite and ammonium bisulfite. This is an intermediate in the production of ammonium thiosulfate solution. All process gasses from the gassing tank are vented through an alkaline scrubber to remove SO<sub>2</sub> and an acidic scrubber to remove NH<sub>3</sub>. Ammonia is used to neutralize an aqueous mixture of ammonium sulfite and ammonium bisulfite in the digest tank. After neutralization, the solution is heated and molten sulfur is added to the mixture to form ammonium thiosulfate solution. All process gasses are vented through an alkaline scrubber to remove SO<sub>2</sub> and an acidic scrubber to remove NH<sub>3</sub>.

Emission Source/Control: 00160 - Control

Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00161 - Control

Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00162 - Process

Design Capacity: 50,000 tons per year

**Item 28.11:**

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

Emission Unit: U-00070

Process: 014

Source Classification Code: 3-99-999-94



Process Description:

Pure sulfur dioxide is combined with aqueous diethanolamine solution to form aqueous diethanolamine sulfur dioxide adduct (containing approximately 20% SO<sub>2</sub>) in a batch reactor. Excess sulfur dioxide is vented to an alkaline scrubber where process exhaust occurs. This emission unit also includes an aqueous diethanolamine storage tank and an aqueous diethanolamine sulfur dioxide adduct storage tank.

Emission Source/Control: 00170 - Control  
Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00171 - Process  
Design Capacity: 4 1000 gallons

Emission Source/Control: 00172 - Process  
Design Capacity: 4 1000 gallons

Emission Source/Control: 00173 - Process  
Design Capacity: 360 tons per year

**Item 28.12:**

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

Emission Unit: U-00080  
Process: 015 Source Classification Code: 3-01-009-05  
Process Description:

Aqueous sodium bisulfite is formed by combining sulfur dioxide and water with sodium carbonate or sodium hydroxide. Reaction is carried out in packed towers with gas flowing countercurrent to liquid followed by liquid finishing in tanks to meet product specifications. Process gasses are vented to an alkaline scrubber to remove SO<sub>2</sub>. As sodium bisulfite solution is produced, it is transferred to three storages which are vented through a common vent header to atmosphere.

Emission Source/Control: 00180 - Control  
Control Type: CONSERVATION VENT

Emission Source/Control: 00182 - Control  
Control Type: PACKED-GAS ABSORPTION SYSTEM

Emission Source/Control: 00183 - Process  
Design Capacity: 42,000 gallons

Emission Source/Control: 00185 - Process  
Design Capacity: 16,000 tons per year

**Item 28.13:**

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



Emission Unit: U-00080

Process: 016

Source Classification Code: 3-01-021-22

Process Description:

Sodium carbonate is received in bulk dry powder form and is transferred into storage via pneumatic conveyor. A two stage spray scrubber is used to remove particles from the loading air system.

Emission Source/Control: 00181 - Control

Control Type: GAS SCRUBBER (GENERAL, NOT CLASSIFIED)

Emission Source/Control: 00184 - Process

Design Capacity: 30,000 gallons

**Item 28.14:**

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

Emission Unit: U-00090

Process: 017

Source Classification Code: 1-02-006-02

Process Description:

Natural gas is burned in a 25.0 million Btu/hr fire tube package boiler to generate steam for the facility. Although boiler is rated for 25.0 million Btu/hr, boiler routinely operates at less than 20% of capacity in modulating mode. Note: package boiler has dual fuel capability and can burn up to 166 gals/hr of #2 fuel oil in place of natural gas.

Emission Source/Control: 00028 - Combustion

Design Capacity: 25,000,000 British thermal units per hour

**Item 28.15:**

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

Emission Unit: U-00090

Process: 018

Source Classification Code: 1-02-006-02

Process Description:

#2 or #3 fuel oil is burned in a 25.0 million Btu/hr fire tube package boiler to generate steam for the facility. Although the boiler is rated for 25.0 million btu/hr, the boiler routinely operates at less than 20% of capacity in modulating mode. This boiler has dual fuel capability (fuel oil or natural gas).

Emission Source/Control: 00028 - Combustion

Design Capacity: 25,000,000 British thermal units per hour

**Condition 29: Compliance Certification**

**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 29.1:**



The Compliance Certification activity will be performed for:

Emission Unit: U-00010                      Emission Point: 00102  
Process: 020                                      Emission Source: 00104

Regulated Contaminant(s):  
CAS No: 007446-09-5              SULFUR DIOXIDE

**Item 29.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed wet scrubber shall be operated to control sulfur dioxide emissions at all times. The scrubber fluid shall be monitored at least once per hour for the existence of flow through the scrubber and continuously for pH. The pH of the scrubber fluid shall be a minimum of 7.5 units. The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and pH (at least hourly readings) and any equipment maintenance and repairs.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: ACIDITY/ALKALINITY  
Lower Permit Limit: 7.5 pH (STANDARD) units  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED  
VALUE AT ANY TIME  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 30: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:40CFR 64**

**Item 30.1:**

The Compliance Certification activity will be performed for:



Emission Unit: U-00020

Regulated Contaminant(s):

CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 30.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

PVS Inc. is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) since the facility has potential pre-control device SO<sub>2</sub> emissions greater than 100 tons per year, which is the major source threshold level, and a control device is used to achieve compliance with an emission standard. This rule required PVS to submit a CAM Plan which detailed and justified the monitoring indicators and performance criteria used at the facility to assure proper operation of the control device.

The CAM Plan, dated August, 2008, was prepared by Benchmark Environmental Engineering & Science, PLLC. The plan was submitted to the Department and approved via the issuance of this permit. The plan has been incorporated into the permit via Permit Conditions #31, 32, 33 and 34.

The indicators specified in the CAM Plan are the scrubber solution pH in both the upper and lower sections of the scrubber, and the scrubber solution flow rate. If any pH or flow readings, on an hourly average basis, do not meet the following standards, they will be considered excursions requiring follow-up action:

Lower scrubber section pH must be between 4.0 and 6.0 units.

Upper scrubber section pH must be no less than 6.2 units.

Both scrubber sections solution flow rate must be no less than 220 gpm.

PVS is required to maintain and operate all monitoring equipment at all times while Process 002 is operating. If either PVS or the Department determines that there is a need for an improved monitoring plan, PVS may be required to develop a Quality Improvement Plan (QIP) per 40CFR Part 64.8.

In addition to the semi-annual reporting requirements of 6NYCRR Part 201-6.5(c), 201-6.5(c)(3)(ii), and 201-6.5(e) in Permit Conditions #3, 5, & 6, respectively, PVS must,



to satisfy the reporting requirements of 40CFR Part 64.9, include information with those semi-annual reports which summarizes:

1. the number, duration, and cause of exceedances; and corrective actions taken;
2. the number, duration and cause for monitor downtime incidents; and
3. description of the actions taken to implement a QIP during the reporting period, if necessary.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 31: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 31.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00020

Emission Point: 00005

Process: 002

Emission Source: 00005

Regulated Contaminant(s):

CAS No: 007664-93-9      SULFURIC ACID

**Item 31.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The facility owner and/or operator shall physically observe emission point 00005 hourly to monitor for unusual opacity conditions. If visible emissions above those that are normal and in compliance with section 212.6(a) are detected (this may be zero percent opacity for many or all stacks), the facility owner shall determine the cause immediately and make the necessary correction. The records of the physical observations must be recorded in a log at the facility and shall be available for inspection by Department representatives upon request. Records will be maintained for a period of at least five years.

If visible emissions above those that are normal and in compliance continue to be present after corrections are made, the facility owner will conduct a Method 9





sulfuric acid produced.

The pH of the scrubber solution will be continuously monitored and recorded hourly in the lower section of the scrubber. The pH of the lower section must be no less than 4.0 units but no more than 6.0 units. A daily log must be maintained on site to record the hourly observations of pH and any equipment maintenance and repairs.

Any excursions from the required pH must be reported to the Department within two working days of the occurrence. A written report detailing the occurrence and providing an evaluation of the effect of the excursion on compliance with the minimum scrubber control efficiency must be submitted to the Department within 30 days.

The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: PH

Lower Permit Limit: 4.0 pH (STANDARD) units

Upper Permit Limit: 6.0 pH (STANDARD) units

Monitoring Frequency: HOURLY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 33: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 33.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00020

Emission Point: 00005

Process: 002

Emission Source: 00007

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE



**Item 33.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed wet scrubber will be operated to control sulfur dioxide emissions to a minimum of 85% as required by 6 NYCRR Part 212.4(a) and for a "C" environmental rating in Table 2 of Part 212.9(b) at all times. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO<sub>2</sub> per ton of sulfuric acid produced.

The pH of the scrubber solution will be continuously monitored and recorded hourly in the upper section of the scrubber. The pH of the upper section will not be less than 6.2 units. A daily log must be maintained on site to record the hourly observations of pH and any equipment maintenance and repairs.

Any excursions from the required pH must be reported to the Department within two working days of the occurrence. A written report detailing the occurrence and providing an evaluation of the effect of the excursion on compliance with the minimum scrubber control efficiency must be submitted to the Department within 30 days.

The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: PH

Lower Permit Limit: 6.2 pH (STANDARD) units

Monitoring Frequency: HOURLY

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 34: Compliance Certification**



Effective between the dates of 06/24/2009 and 06/23/2014

**Applicable Federal Requirement: 6NYCRR 212.9**

**Item 34.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00020  
Process: 002

Emission Point: 00005  
Emission Source: 00007

Regulated Contaminant(s):  
CAS No: 007446-09-5      SULFUR DIOXIDE

**Item 34.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

PVS Chemicals must assure compliance with the minimum overall sulfur dioxide control efficiency rate of 85%, as required by 6 NYCRR Part 212.4(a) and for a "C" environmental rating in Table 2 of Part 212.9(b) at all times. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO<sub>2</sub> per ton of sulfuric acid produced.

The control efficiency was verified on January 26, 2006 via performance testing in accordance with 40CFR60, Appendix A, Method 6C. The performance test determining the control efficiency of the scrubber must be performed, in accordance with 40CFR60, Appendix A, Method 6C, once every five years, based on the date of the previous test. To better define compliance objectives, the next performance test must include scrubber flow and the pH of each scrubber section as test parameters. This may involve an additional test method.

Test protocol(s) shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at least 60 days prior to the proposed test date(s). Department staff will be afforded the opportunity to witness the performance test by notifying the RAPCE of the actual test date. A test report shall be submitted to the RAPCE within 60 days of test completion.

Parameter Monitored: CONCENTRATION

Lower Permit Limit: 85 percent

Reference Test Method: USEPA Reference Method 6C

Monitoring Frequency: Once every five years

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST  
METHOD INDICATED

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.



The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 35: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement: 6NYCRR 212.9**

**Item 35.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00020                      Emission Point: 00005  
Process: 002                                      Emission Source: 00007

Regulated Contaminant(s):  
CAS No: 007446-09-5                      SULFUR DIOXIDE

**Item 35.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed wet scrubber will be operated to control sulfur dioxide emissions to a minimum of 85% as required by 6 NYCRR Part 212.4(a) and for a "C" environmental rating in Table 2 of Part 212.9(b) at all times. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO<sub>2</sub> per ton of sulfuric acid produced.

The scrubber solution flow rate will be continuously monitored and recorded hourly in both sections of the scrubber. The flow in each section must be no less than 220 gallons per minute. A daily log must be maintained on site to record the hourly observations of flow and any equipment maintenance and repairs.

Any excursions from the required minimum scrubber flow rate must be reported to the Department within two working days of the occurrence. A written report detailing the occurrence and providing an evaluation of the effect of the excursion on compliance with the minimum scrubber control efficiency must be submitted to the Department within 30 days.

The packed tower scrubber must be operated and maintained in accordance with manufacturer's recommendations.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.





violation, will remedy the problem, and will contact the Department. The provisions of Part 201-1.4 shall apply.

A semi-annual report shall be submitted to the Department that summarizes the opacity compliance history of the emission point for the previous six months.

Parameter Monitored: OPACITY  
Upper Permit Limit: 20 percent  
Monitoring Frequency: HOURLY  
Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 37: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 37.1:**  
The Compliance Certification activity will be performed for:

Emission Unit: U-00040                      Emission Point: 00006  
  
Regulated Contaminant(s):  
CAS No: 007664-93-9                      SULFURIC ACID

**Item 37.2:**  
Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The wet packed tower scrubber shall be operated to control sulfur trioxide and sulfuric acid emissions to a minimum of 96%, as required by 6NYCRR Part 212.4(a) and for a B environmental rating in Table 2 of Part 212.9(b), at all times. The scrubber fluid shall be monitored at least once per hour during production for the existence of flow through the scrubber and continuously for sulfuric acid concentration. The recirculating scrubber fluid shall be at least 98% sulfuric acid. The packed tower scrubber and the scrubber conductivity sensor and alarm must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and concentration (at least hourly readings) and any equipment maintenance and repairs.



A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: SULFURIC ACID  
Lower Permit Limit: 98 percent  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE AT ANY TIME  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 38: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 38.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00050                      Emission Point: 00150

Regulated Contaminant(s):  
CAS No: 007647-01-0                      HYDROGEN CHLORIDE

**Item 38.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed tower scrubber shall be operated at all times that emissions from the loading or unloading of hydrochloric acid may occur, as required by 6NYCRR Part 212.4(a) and for a B environmental rating in Table 2 of Part 212.9 (b). The scrubber water shall be monitored daily for the existence of flow through the scrubber and for hydrogen chloride concentration. The scrubber water must be removed and replaced before the hydrogen chloride concentration exceeds 18 percent.

The packed tower scrubber must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the daily observations of flow and hydrogen chloride concentration



and any equipment maintenance and repairs.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: CONCENTRATION

Upper Permit Limit: 18 percent

Monitoring Frequency: DAILY

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -  
SEE MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 39: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 39.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00060

Emission Point: 00160

Process: 012

Emission Source: 00160

Regulated Contaminant(s):

CAS No: 007664-41-7 AMMONIA

**Item 39.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed wet scrubber shall be operated to control ammonia emissions at all times. The scrubber fluid shall be monitored at least once per hour for the existence of flow through the scrubber and continuously for pH. The pH of the scrubber fluid shall be a maximum of 7.0 units. The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and pH (at least hourly readings) and any equipment maintenance and repairs.

A semi-annual report shall be submitted to the Department



that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: ACIDITY/ALKALINITY  
Upper Permit Limit: 7.0 pH (STANDARD) units  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 40: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement: 6NYCRR 212.9**

**Item 40.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00060                      Emission Point: 00160  
Process: 012                                      Emission Source: 00161

Regulated Contaminant(s):  
CAS No: 007446-09-5                      SULFUR DIOXIDE

**Item 40.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed wet scrubber shall be operated to control sulfur dioxide emissions at all times. The scrubber fluid shall be monitored at least once per hour for the existence of flow through the scrubber and continuously for pH. The pH of the scrubber fluid shall be a minimum of 5.5 units. The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and pH (at least hourly readings) and any equipment maintenance and repairs.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from



permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: ACIDITY/ALKALINITY  
Lower Permit Limit: 5.5 pH (STANDARD) units  
Monitoring Frequency: CONTINUOUS  
Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE AT ANY TIME  
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)  
Reports due 30 days after the reporting period.  
The initial report is due 7/30/2009.  
Subsequent reports are due every 6 calendar month(s).

**Condition 41: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 41.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00070                      Emission Point: 00170

Regulated Contaminant(s):  
CAS No: 007446-09-5              SULFUR DIOXIDE

**Item 41.2:**

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The packed bed scrubber shall be operated at all times that diethanolamine sulfur dioxide adduct is being produced. Sulfur dioxide emissions shall be controlled to a minimum of 91% as required by 6NYCRR Part 212.4(a) and for a B environmental rating in Table 2 of Part 212.9 (b).  
The scrubber water shall be monitored at least once per hour during production for the existence of flow through the scrubber and continuously for pH. The pH of the scrubber fluid shall be a minimum of 8.0 pH units.

The packed scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and pH (at least hourly readings) and any equipment maintenance and repairs.





Subsequent reports are due every 6 calendar month(s).

**Condition 43: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 43.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00080                      Emission Point: 00182  
Process: 015                                      Emission Source: 00182

Regulated Contaminant(s):  
CAS No: 007446-09-5              SULFUR DIOXIDE

**Item 43.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The water flow alarm on the wet packed tower scrubber must be checked at least monthly to verify that it is in good working condition. These observations will be recorded in a log at the facility and shall be available for inspection by Department representatives upon request. Records will be maintained for a period of at least five years. A semi-annual report shall be submitted to the Department that summarizes the compliance history of the water flow alarm for the previous six months.

Monitoring Frequency: MONTHLY

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 44: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement:6NYCRR 212.9**

**Item 44.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00080                      Emission Point: 00182  
Process: 015                                      Emission Source: 00182

Regulated Contaminant(s):  
CAS No: 007446-09-5              SULFUR DIOXIDE

**Item 44.2:**

Compliance Certification shall include the following monitoring:



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

Monitoring Description:

The wet packed tower scrubber shall be operated to control sulfur dioxide emissions to a minimum of 91%, as required by 6NYCRR Part 212.4(a) and for a B environmental rating in Table 2 of Part 212.9(b), at all times that aqueous sodium bisulfite is being produced. The scrubber water shall be monitored at least once per hour during production for the existence of flow through the scrubber and continuously for pH. The pH of the scrubber fluid shall be a minimum of 7.5 units. The packed tower scrubber and the scrubber pH monitor must be operated and maintained in accordance with manufacturer's recommendations. A daily log must be maintained on site to record the observations of flow and pH (at least hourly readings) and any equipment maintenance and repairs.

A semi-annual report shall be submitted to the Department that summarizes the operating history of the scrubber for the previous six months and lists any deviations from permit requirements.

All records are to be kept on site for a period of five years and made available to Department representatives during normal business hours.

Parameter Monitored: ACIDITY/ALKALINITY

Lower Permit Limit: 7.5 pH (STANDARD) units

Monitoring Frequency: CONTINUOUS

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

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).

**Condition 45: Compliance Certification**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable Federal Requirement: 6NYCRR 227-1.3(a)**

**Item 45.1:**

The Compliance Certification activity will be performed for:

Emission Unit: U-00090

**Item 45.2:**

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL



DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No owner or operator of a combustion installation shall emit greater than 20 percent opacity except for one six minute period per hour, not to exceed 27 percent, based upon the six minute average in reference test method 9 in Appendix A of 40 CFR 60.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2009.

Subsequent reports are due every 6 calendar month(s).



**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: 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 applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.**

**Condition 46: Contaminant List**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 46.1:**

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

CAS No: 000497-19-8  
Name: SODIUM CARBONATE

CAS No: 007446-09-5



Name: SULFUR DIOXIDE

CAS No: 007647-01-0

Name: HYDROGEN CHLORIDE

CAS No: 007664-41-7

Name: AMMONIA

CAS No: 007664-93-9

Name: SULFURIC ACID

CAS No: 010196-04-0

Name: SULFUROUS ACID, DIAMMONIUM SALT

**Condition 47: Unavoidable noncompliance and violations**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

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

**Item 47.1:**

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 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 48: Air pollution prohibited**  
**Effective between the dates of 06/24/2009 and 06/23/2014**

**Applicable State Requirement:6NYCRR 211.2**

**Item 48.1:**

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.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

