



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-1402-00435/00037
Effective Date: 10/02/2017 Expiration Date: 10/01/2022

Permit Issued To: PVS CHEMICAL SOLUTIONS INC
55 LEE ST
BUFFALO, NY 14210

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

Facility: PVS CHEMICAL SOLUTIONS INC
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 and sodium bisulfite. Raw materials for these processes include molten sulfur, spent sulfuric acid, anhydrous ammonia, sodium hydroxide and sodium carbonate. This facility is also a shipping terminal for hydrochloric acid, though this part of the facility is currently not operating.

The PVS Chemicals facility has the potential-to-emit sulfur dioxide (SO₂) 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.

Changes within this permit renewal include:

- Addition of a sulfuric acid (expressed as 100 percent sulfuric acid) production limit of 300 tons per day. By accepting this limit, the facility will not be subject to continuous stack monitoring per 6 NYCRR 224.4(a)(2).
- Addition of a requirement cited under 6NYCRR Part 200.6 to assure compliance with the 1-hour SO₂ National Ambient Air Quality Standard (NAAQS) by maintaining a minimum scrubber efficiency.



- Removal of emission unit U-00070, which had consisted of the aqueous diethanolamine sulfur dioxide adduct production process.
- A lowered sulfur in fuel limit per 6NYCRR Part 225 which applies to the use of distillate oil in the facility boiler. The new limit of 0.0015 percent sulfur by weight is stricter than the federal limit of 0.5 percent in 40 CFR 60.42c(d).

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:

Spent sulfuric acid is received at PVS in tank trailer and tank car quantities and transferred into one of three storage tanks. This emission unit is comprised of three bulk chemical tanks storing spent sulfuric acid. All three tanks vent to atmosphere. Spent sulfuric acid is generally comprised of 60%-95% H₂SO₄, with hydrocarbons and water as contaminants.

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.



The process exhaust goes through a packed wet scrubber which uses an alkaline solution to remove sulfur dioxide from the gas stream before being emitted at emission point 00005. The permit contains a condition requiring the scrubber to undergo performance testing at least once every five years to show compliance with the minimum 94% overall sulfur dioxide control efficiency rate for the packed wet scrubber as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 pounds SO₂ per ton of sulfuric acid produced. A performance test of the scrubber was completed in 2016 with a result of 99+% overall control efficiency.

The scrubber is also 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 hourly physical observation for visible opacity at emission point 00005 in accordance with 6NYCRR Part 212-1.6(a).

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 points 00006 and 00007 once per hour per 6NYCRR Part 212-1.6(a). The packed wet scrubber is subject to 6NYCRR Part 212-2.3(a) 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. This emission unit is currently not operating.

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 212-2.3(b). 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 212-1.6(a). Included in this permit are monitoring and reporting requirements to assure compliance with these regulations.

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 212-2.3(a) 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: LISA M CZECHOWICZ
 NYSDEC - REGION 9
 270 MICHIGAN AVE
 BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ____ / ____ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

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

Item B: Permittee's Contractors to Comply with Permit

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

Item C: Permittee Responsible for Obtaining Other Required Permits

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

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

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



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

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

Facility Level

- Submission of application for permit modification or renewal-REGION 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: 6 NYCRR 621.11

Item 3.1:

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

Item 3.2:

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

Item 3.3

Permits are transferrable with the approval of the department unless specifically prohibited by



the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

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

Item 4.1:

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

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:
NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

IDENTIFICATION INFORMATION

Permit Issued To: PVS CHEMICAL SOLUTIONS INC
55 LEE ST
BUFFALO, NY 14210

Facility: PVS CHEMICAL SOLUTIONS INC
55 LEE ST
BUFFALO, NY 14210

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

Permit Effective Date: 10/02/2017

Permit Expiration Date: 10/01/2022



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
 - 2 6 NYCRR 201-6.4 (a) (7): Fees
 - 3 6 NYCRR 201-6.4 (c): Recordkeeping and Reporting of Compliance Monitoring
 - 4 6 NYCRR 201-6.4 (c) (2): Records of Monitoring, Sampling, and Measurement
 - 5 6 NYCRR 201-6.4 (c) (3) (ii): Compliance Certification
 - 6 6 NYCRR 201-6.4 (e): Compliance Certification
 - 7 6 NYCRR 202-2.1: Compliance Certification
 - 8 6 NYCRR 202-2.5: Recordkeeping requirements
 - 9 6 NYCRR 215.2: Open Fires - Prohibitions
 - 10 6 NYCRR 200.7: Maintenance of Equipment
 - 11 6 NYCRR 201-1.7: Recycling and Salvage
 - 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
 - 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
 - 14 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
 - 15 6 NYCRR 201-6.4 (a) (4): Requirement to Provide Information
 - 16 6 NYCRR 201-6.4 (a) (8): Right to Inspect
 - 17 6 NYCRR 201-6.4 (f) (6): Off Permit Changes
 - 18 6 NYCRR 202-1.1: Required Emissions Tests
 - 19 40 CFR Part 68: Accidental release provisions.
 - 20 40CFR 82, Subpart F: Recycling and Emissions Reduction
 - 21 6 NYCRR 200.6: Compliance Certification
 - 22 6 NYCRR Subpart 201-6: Emission Unit Definition
 - 23 6 NYCRR 201-6.4 (d) (4): Progress Reports Due Semiannually
 - 24 6 NYCRR 211.1: Air pollution prohibited
 - 25 6 NYCRR 212-1.6 (a): Compliance Certification
 - 26 6 NYCRR 212-1.6 (a): Compliance Certification
 - 27 6 NYCRR 212-1.6 (a): Compliance Certification
 - 28 6 NYCRR 212-2.3 (a): Compliance Certification
 - 29 6 NYCRR 224.4 (a) (2): Compliance Certification
- Emission Unit Level**
- 30 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
 - 31 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

EU=U-00020

- 32 40 CFR Part 64: Compliance Certification

EU=U-00020,EP=00005,Proc=002

- 33 6 NYCRR 224.2 (b) (1): Compliance Certification

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

- 34 6 NYCRR 212-2.3 (a): Compliance Certification
- 35 6 NYCRR 212-2.3 (a): Compliance Certification
- 36 6 NYCRR 212-2.3 (a): Compliance Certification



37 6 NYCRR 212-2.3 (a): Compliance Certification

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

38 6 NYCRR 212-2.3 (a): Compliance Certification

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

39 6 NYCRR 212-2.3 (a): Compliance Certification

40 6 NYCRR 212-2.3 (a): Compliance Certification

EU=U-00090

41 6 NYCRR 227-1.3 (a): Compliance Certification

EU=U-00090,Proc=018

42 6 NYCRR 225-1.2 (h): Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

43 ECL 19-0301: Contaminant List

44 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities

Emission Unit Level

EU=U-00050,EP=00150

45 6 NYCRR 212-2.3 (b): Compliance Demonstration

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

46 6 NYCRR 212-2.3 (b): Compliance Demonstration

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

47 6 NYCRR 212-2.3 (b): Compliance Demonstration



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: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 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 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item B: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.2 (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 C: Certification by a Responsible Official - 6 NYCRR 201-6.2 (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 D: Requirement to Comply With All Conditions - 6 NYCRR 201-6.4 (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 E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.4 (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 F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4 (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 G: Property Rights - 6 NYCRR 201-6.4 (a) (6)

This permit does not convey any property rights of any sort or any exclusive privilege.

Item H: Severability - 6 NYCRR 201-6.4 (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 I: Permit Shield - 6 NYCRR 201-6.4 (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 J: Reopening for Cause - 6 NYCRR 201-6.4 (i)

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

i. When additional applicable requirements under the act become applicable to a title V facility with a remaining permit term of 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 therequirement is later than the date on which the 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 section 201- 6.6 of this Subpart.

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 K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

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

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

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

**Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 10/02/2017 and 10/01/2022**

Applicable Federal Requirement: 6 NYCRR 200.6

Item 1.1:

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



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Condition 2: Fees
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 201-6.4 (a) (7)

Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

Condition 3: Recordkeeping and Reporting of Compliance Monitoring
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 201-6.4 (c)

Item 3.1:

The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (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 201-6.2 of Part 201.

Condition 4: Records of Monitoring, Sampling, and Measurement
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 201-6.4 (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 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 201-6.4 (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 (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 above paragraphs (1) or (2) 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) and (2) 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 201-6.2(d)(12), must be submitted within 10 working days of an occurrence for deviations reported under (1) and (2). All deviations reported under paragraphs (1) and (2) of this section must also be identified in the 6 month monitoring report required above.

The provisions of 6 NYCRR 201-1.4 shall apply if the permittee seeks to have a violation excused unless otherwise limited by regulation. 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. Notwithstanding any recordkeeping and reporting requirements in 6 NYCRR 201-1.4, reports of any deviations shall not be on a less frequent basis than the reporting periods described in paragraphs (1) and (4) above.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual



report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.4(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2018.

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

Condition 6: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 201-6.4 (e)

Item 6.1:

The Compliance Certification activity will be performed for the Facility.

Item 6.2:

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 annual compliance certifications may be submitted electronically or physically. Electronic reports shall be submitted using the Department's Air Compliance and Emissions Electronic-Reporting system (ACE). If the facility owner or operator elects to send physical copies instead, two copies shall be sent to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Quality Assurance (BQA) in the DEC central office) and one copy shall be sent to the Administrator (or his or her representative). The mailing addresses for the above referenced persons are:

Chief – Stationary Source Compliance Section
USEPA Region 2
Air Compliance Branch
290 Broadway
New York, NY 10007-1866

The address for the RAPCE is as follows:

Regional Air Pollution Control Engineer
NYSDEC Region 9 Headquarters
270 Michigan Avenue
Buffalo, NY 14203-2915

The address for the BQA is as follows:

NYSDEC

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Bureau of Quality Assurance
625 Broadway
Albany, NY 12233-3258

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2018.
Subsequent reports are due on the same day each year

Condition 7: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 202-2.1

Item 7.1:

The Compliance Certification activity will be performed for the Facility.

Item 7.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

Monitoring Frequency: ANNUALLY
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due by April 15th for previous calendar year

Condition 8: Recordkeeping requirements
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 202-2.5

Item 8.1:

(a) The following records shall be maintained for at least five years:

(1) a copy of each emission statement submitted to the department; and

(2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires - Prohibitions
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 215.2

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Item 9.1:

Except as allowed by Title 6 NYCRR Section 215.3, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item 9.2

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.
- (k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.
- (l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE

The following federally enforceable permit conditions are mandatory for all



Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.

[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

Condition 10: Maintenance of Equipment
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 200.7

Item 10.1:

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

Condition 11: Recycling and Salvage
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 11.1:

Where practical, the owner or operator of an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 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 10/02/2017 and 10/01/2022

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

Item 13.1:

The owner or operator of an emission source or activity that is listed as being exempt may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all records necessary for demonstrating compliance with this Subpart on-site for a period of five years, and make them available to representatives of the department upon request.

Condition 14: Trivial Sources - Proof of Eligibility
Effective between the dates of 10/02/2017 and 10/01/2022



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

Item 14.1:

The owner or operator of an emission source or activity that is listed as being trivial in this Section may be required to certify that it is operated within the specific criteria described in this Subpart. The owner or operator of any such emission source or activity must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request.

Condition 15: Requirement to Provide Information
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 201-6.4 (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: Right to Inspect
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 201-6.4 (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: Off Permit Changes
Effective between the dates of 10/02/2017 and 10/01/2022



Applicable Federal Requirement:6 NYCRR 201-6.4 (f) (6)

Item 17.1:

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 201-6.4 shall not apply to any change made pursuant to this paragraph.

Condition 18: Required Emissions Tests
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 202-1.1

Item 18.1:

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.

Condition 19: Accidental release provisions.
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:40 CFR Part 68

Item 19.1:

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:



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

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 20: Recycling and Emissions Reduction
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:40CFR 82, Subpart F

Item 20.1:

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 21: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 200.6

Item 21.1:

The Compliance Certification activity will be performed for the Facility.

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

Item 21.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

PVS must assure compliance with the 1-hour sulfur dioxide (SO₂) National Ambient Air Quality Standard (NAAQS) which is 75 ppb (99th percentile of 1-hour daily maximum concentrations, averaged over 3 years) which is equivalent to 196.5 microgram per cubic meter. The predominant source of SO₂ emissions from the facility is emission unit 00002 which is the sulfuric acid production process (process 002) exhausting to a two-stage wet scrubber (emission source 00007) and venting through emission point #5. Other



facility processes contribute 4.1 pounds per hour (according to company submitted emission statements) to the facility-wide SO₂ emissions.

Performance testing conducted on the two-stage wet scrubber on April 27, 2016 resulted in an average SO₂ emission rate equal to 1.4 pounds per hour and a scrubber control efficiency of 99.7%. The reported average daily production rate for the week of the test equaled 255 tons per day.

PVS has chosen to maintain a sulfuric acid production rate of less than 300 ton per day, therefore not requiring continuous stack monitoring per 6NYCRR 224.4(a)(2). The scrubber must have a minimum 94% overall sulfur dioxide control efficiency as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour.

An extrapolation of the performance test results using these parameters (94% control and 300 tons per day production) provides a SO₂ emission rate equal to 33 pounds per hour. A run of the air dispersion model AERSCREEN using these values at emission point #5 results in a maximum 1-hr impact which exceeds the NAAQS standard. In order to limit the maximum 1-hour impact to less than the NAAQS, the maximum allowable emission rate from the facility is 28.7 pounds per hour. Factoring in the 4.1 pounds per hour contributed to the total emission rate from other facility processes, the two-stage wet scrubber must have a control efficiency of at least 96% in order to assure compliance with the 1-hour SO₂ NAAQS.

PVS can perform refined modeling via AERMOD to better define the maximum 1-hour SO₂ impact for comparison to the NAAQS. If this option is chosen, PVS must submit an air dispersion modeling protocol to the Department for review and approval before performing the modeling. If the modeling determines that a lower scrubber control efficiency assures compliance with the 1-hour SO₂ NAAQS, the modeled efficiency will be the permitted requirement. Please note that the modeled value cannot be less than 94% as prescribed by 6NYCRR Part 212.

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 1/30/2018.

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



Condition 22: Emission Unit Definition
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR Subpart 201-6

Item 22.1:

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 in tank trailer and tank car quantities and transferred into one of three storage tanks. This emission unit is comprised of three bulk chemical tanks storing spent sulfuric acid. All three tanks vent to atmosphere. Spent sulfuric acid is generally comprised of 60%-95% H₂SO₄, with hydrocarbons and water as contaminants.

Building(s): YARD

Item 22.2:

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

Emission Unit: U-00020

Emission Unit Description:

Sulfur dioxide (SO₂) is generated by thermally decomposing spent sulfuric acid (H₂SO₄) or by burning elemental sulfur in the presence of excess oxygen. The SO₂ is then catalytically converted to sulfur trioxide (SO₃) and absorbed in strong sulfuric acid to produce saleable commercial grades of sulfuric acid and fuming sulfuric acid (oleum).

Building(s): B3
YARD

Item 22.3:

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.

Building(s): YARD

Item 22.4:

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 (SO₃) is stripped from a stream of fuming sulfuric acid in an evaporator. The SO₃ is combined with pure water in specialty constructed absorption columns to form high purity sulfuric acid. The high purity sulfuric acid processes are connected to a scrubber which removes free SO₃ and H₂SO₄ aerosol from the gas stream before being emitted. There are several tanks associated with the high purity sulfuric acid process.

Building(s): B2

Item 22.5:

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 22.6:

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 22.7:

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 SO₂. This emission unit includes a vent manifold for three sodium bisulfite storage tanks and a bulk sodium carbonate receiving system.

Building(s): B3

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Item 22.8:

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 23: Progress Reports Due Semiannually
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 201-6.4 (d) (4)

Item 23.1:

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 24: Air pollution prohibited
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 211.1

Item 24.1:

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

Condition 25: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

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

Item 25.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: U-00020

Emission Point: 00005

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 25.2:

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 212-1.6(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 212-1.6(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 00005 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: 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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).



Condition 26: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

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

Item 26.1:

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

Emission Unit: U-00040 Emission Point: 00006

Emission Unit: U-00040 Emission Point: 00007

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 26.2:

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 points 00006 & 00007 hourly to monitor for unusual opacity conditions. If visible emissions above those that are normal and in compliance with section 212-1.6(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 212-1.6(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.

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.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 27: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

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

Item 27.1:

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

Emission Unit: U-00060

Emission Point: 00160

Regulated Contaminant(s):

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

Item 27.2:

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 212-1.6(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 212-1.6(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 EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 28: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 28.1:

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

Emission Unit: U-00040 Emission Point: 00006

Emission Unit: U-00040 Emission Point: 00007

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 28.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

PVS must operate the two wet packed tower scrubbers (emission sources 00006 & 0007A) to assure compliance with the minimum 96% overall sulfur trioxide and sulfuric acid control efficiencies as required by 6NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at all times. Compliance will be assured by surrogate parametric monitoring as described below.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



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 1/30/2018.

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

Condition 29: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 224.4 (a) (2)

Item 29.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 29.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

Actual production of sulfuric acid (expressed as 100 percent sulfuric acid) is limited to 300 tons per day. By accepting this limit, the facility will not be subject to

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



continuous stack monitoring per 6 NYCRR 224.4(a)(2).

PVS will quantify the actual amount of sulfuric acid (expressed as 100 percent sulfuric acid) produced on a weekly basis and calculate the average daily production rate for the specific week. Records of both the total weekly and average daily production rates must be submitted with each Semi-Annual Monitoring Report and kept on site for five years.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: 100% H2SO4 (sulfuric acid)
Parameter Monitored: PRODUCT
Upper Permit Limit: 300 tons per day
Monitoring Frequency: WEEKLY
Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

**** Emission Unit Level ****

Condition 30: Emission Point Definition By Emission Unit
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 30.1:

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

- Emission Unit: U-00010
Emission Point: 00102
Height (ft.): 35 Diameter (in.): 3
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD
Emission Point: 00103
Height (ft.): 35 Diameter (in.): 3
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 30.2:

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

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Emission Unit: U-00020

Emission Point: 00005

Height (ft.): 75 Diameter (in.): 42
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: YARD

Item 30.3:

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

Item 30.4:

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: 00007

Height (ft.): 10 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

Emission Point: 00147
Height (ft.): 10 Diameter (in.): 4
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00148
Height (ft.): 10 Diameter (in.): 4
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00149
Height (ft.): 10 Diameter (in.): 4
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00341
Height (ft.): 10 Diameter (in.): 4
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Emission Point: 00342
Height (ft.): 10 Diameter (in.): 4
NYTMN (km.): 4752.92 NYTME (km.): 186.109 Building: B2

Item 30.5:

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 30.6:

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 30.7:



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 30.8:

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 31: Process Definition By Emission Unit

Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 31.1:

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 three 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: 00102 - Process

Design Capacity: 75 1000 gallons

Emission Source/Control: 00103 - Process

Design Capacity: 75 1000 gallons

Emission Source/Control: 00113 - Process

Design Capacity: 150 1000 gallons

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Item 31.2:

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 (SO₂) is generated by thermally decomposing spent sulfuric acid (H₂SO₄) or by burning elemental sulfur in the presence of excess oxygen. The SO₂ is then catalytically converted to sulfur trioxide (SO₃) 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 31.3:

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 31.4:

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 four 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

Item 31.5:

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 (SO₃) 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

Item 31.6:

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:
As sales distribution mandates, sulfur trioxide (SO₃) is stripped from a stream of fuming sulfuric acid in an evaporator. The SO₃ is mixed with clean dry air is then combined with pure water in specialty constructed absorption columns to form high purity sulfuric acid. As the dry air exits the process, it carries sulfuric acid mist. The specialty construction absorption columns are vented to the oleum scrubbers to remove acid mist carryover. 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: 0007A - Control
Control Type: SCRUBBER - PACKED BED

Emission Source/Control: 00140 - Process

Emission Source/Control: 00141 - Process

Emission Source/Control: 00142 - Process

Emission Source/Control: 00143 - Process

Emission Source/Control: 00144 - Process

Emission Source/Control: 00147 - Process

Emission Source/Control: 00148 - Process

Emission Source/Control: 00149 - Process

Emission Source/Control: 00240 - Process

Emission Source/Control: 00340 - Process

Emission Source/Control: 00341 - Process

Emission Source/Control: 00342 - Process

Item 31.7:

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

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Design Capacity: 25,000 gallons

Emission Source/Control: 00153 - Process

Design Capacity: 25,000 gallons

Item 31.8:

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 31.9:

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 SO₂ and an acidic scrubber to remove NH₃. 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 SO₂ and an acidic scrubber to remove NH₃.

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

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Design Capacity: 50,000 tons per year

Item 31.10:

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 SO₂. 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 31.11:

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 31.12:

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



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

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 31.13:

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 32: Compliance Certification

Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:40 CFR Part 64

Item 32.1:

The Compliance Certification activity will be performed for:

Emission Unit: U-00020

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 32.2:

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 SO2 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 is re-approved via the issuance of this permit. The plan has been incorporated into the permit via specific permit conditions.

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 201-6.4(c), 201-6.4(c)(3)(ii), and 201-6.4(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 1/30/2018.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



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

Condition 33: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 224.2 (b) (1)

Item 33.1:

The Compliance Certification activity will be performed for:

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

Regulated Contaminant(s):
CAS No: 007664-93-9 SULFURIC ACID

Item 33.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

PVS Chemicals must assure compliance with the sulfuric acid mist emission standard of 0.50 pounds per ton of sulfuric acid produced (as expressed as 100 percent H₂SO₄) as required by 6 NYCRR Part 224.2(b)(1). To assure on-going compliance, the mist eliminators (emission controls 00005 & 0006A) must be maintained in good working order.

Compliance with the emission standard must be verified via performance testing in accordance with 40CFR60, Appendix A, Method 8 once every five years, based on the date of the previous test.

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.

Upper Permit Limit: 0.50 pounds per ton

Reference Test Method: USEPA Reference Method 8

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 1/30/2018.

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

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Condition 34: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 34.1:

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 34.2:

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 94% at all times as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO₂ per ton of sulfuric acid produced. Compliance will be assured by surrogate parametric monitoring as described below.

The pH of the scrubber solution will be continuously monitored 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 on an hourly average. 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



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

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: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 35: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 212-2.3 (a)

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 94% at all times as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO2 per ton of sulfuric acid produced. Compliance will be assured by surrogate parametric monitoring as described below..

The pH of the scrubber solution will be continuously monitored in the upper section of the scrubber. The pH of the upper section will not be less than 6.2 units on an

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



hourly average. 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: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 36: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 36.1:
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 36.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING
Monitoring Description:



PVS Chemicals must assure compliance with the minimum 94% overall sulfur dioxide control efficiency rate for the packed wet scrubber as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 and 40 CFR 60 Subpart H of 4 lb sulfur dioxide per ton of sulfuric acid produced.

The control efficiency was verified on April 27, 2016 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. The performance test must include scrubber flow and the pH of each scrubber section as test parameters.

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: 94 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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 37: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 37.1:
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

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Item 37.2:

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 94% at all times as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 100 but no more than 500 pounds per hour. This emission limitation is equivalent to the new source standard per 6 NYCRR Part 224 of 4 lb SO₂ per ton of sulfuric acid produced. Compliance will be assured by surrogate parametric monitoring as described below.

The scrubber solution flow rate will be continuously monitored in both sections of the scrubber. The flow in each section must be no less than 220 gallons per minute on an hourly average. 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.

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: FLOW RATE

Lower Permit Limit: 220 gallons per minute

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.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



The initial report is due 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 38: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 38.1:

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 38.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The alkaline packed wet scrubber (emission source 00161) shall be operated to control sulfur dioxide emissions to a minimum of 90% at all times, as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 10 pounds per hour but no more than 20 pounds per hour. Compliance will be assured by surrogate parametric monitoring as described below.

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.



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 39: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 212-2.3 (a)

Item 39.1:

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 39.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The water flow alarm on the alkaline 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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 40: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 212-2.3 (a)

Item 40.1:

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



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 40.2:

Compliance Certification shall include the following monitoring:

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

Monitoring Description:

The alkaline wet packed tower scrubber (emission source 00182) will be operated to control sulfur dioxide emissions to a minimum of 91% at all times that aqueous sodium bisulfite is being produced as required by 6 NYCRR Part 212-2.3(a) Table 3 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of more than 20 but no more than 100 pounds per hour. Compliance will be assured by surrogate parametric monitoring as described below.

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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 41: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

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

Item 41.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-00090

Item 41.2:
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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 42: Compliance Certification
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable Federal Requirement:6 NYCRR 225-1.2 (h)

Item 42.1:
The Compliance Certification activity will be performed for:

Emission Unit: U-00090
Process: 018

Item 42.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC
OPERATIONS

Monitoring Description:

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



Owners and/or operators of a stationary combustion installations that fire distillate oil are limited to the firing of distillate oil with 0.0015 percent sulfur by weight or less on or after July 1, 2016.

Compliance with this limit will be based on vendor certifications. Compliance with this condition also assures compliance with the sulfur content limit in 40 CFR 60.42c(d) of no greater than 0.5 percent by weight.

Data collected pursuant to this requirement must be tabulated and summarized in a form acceptable to the Department, and must be retained for at least five years. The owner of a Title V facility must furnish to the Department such records and summaries, on a semiannual calendar basis, within 30 days after the end of the semiannual period.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: FUEL OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 0.0015 percent by weight
Monitoring Frequency: PER DELIVERY
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 1/30/2018.
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: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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 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 and maintained;

(3) During the period of the emergency the facility owner 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 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 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: 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 43: Contaminant List
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable State Requirement:ECL 19-0301

Item 43.1:

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 44: Malfunctions and start-up/shutdown activities
Effective between the dates of 10/02/2017 and 10/01/2022



Applicable State Requirement:6 NYCRR 201-1.4

Item 44.1:

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

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

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

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

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

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

Condition 45: Compliance Demonstration
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable State Requirement:6 NYCRR 212-2.3 (b)

Item 45.1:

The Compliance Demonstration activity will be performed for:



Emission Unit: U-00050

Emission Point: 00150

Regulated Contaminant(s):

CAS No: 007647-01-0 HYDROGEN CHLORIDE

Item 45.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The packed tower scrubber (emission source 00150) shall be operated to control hydrochloric acid emissions to a minimum of 90% at all times that emissions from the loading or unloading of hydrochloric acid may occur, as required by 6 NYCRR Part 212-2.3(b) Table 4 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of greater than 10 pounds per hour. Compliance will be assured by surrogate parametric monitoring as described below.

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 1/30/2018.

New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435



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

Condition 46: Compliance Demonstration
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable State Requirement: 6 NYCRR 212-2.3 (b)

Item 46.1:

The Compliance Demonstration 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 46.2:

Compliance Demonstration shall include the following monitoring:

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

Monitoring Description:

The acidic packed wet scrubber (emission source 00160) shall be operated to control ammonia emissions to a minimum of 90% at all times, as required by 6 NYCRR Part 212-2.3(b) Table 4 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of greater than 10 pounds per hour. Compliance will be assured by surrogate parametric monitoring as described below.

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



New York State Department of Environmental Conservation

Permit ID: 9-1402-00435/00037

Facility DEC ID: 9140200435

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 1/30/2018.
Subsequent reports are due every 6 calendar month(s).

Condition 47: Compliance Demonstration
Effective between the dates of 10/02/2017 and 10/01/2022

Applicable State Requirement:6 NYCRR 212-2.3 (b)

Item 47.1:
The Compliance Demonstration activity will be performed for:

Emission Unit: U-00080
Process: 016 Emission Source: 00181

Regulated Contaminant(s):
CAS No: 000497-19-8 SODIUM CARBONATE

Item 47.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

The soda ash scrubber (emission source 00181) shall be operated to control particulate emissions to a minimum of 90% at all times that emissions from the soda ash loading operation may occur, as required by 6 NYCRR Part 212-2.3(b) Table 4 "Degree of Air Cleaning Required for Criteria Air Contaminants" for a "B" environmental rating at an emission rate potential of greater than 10 pounds per hour. Compliance will be assured by surrogate parametric monitoring as described below.

Adequate water flow to the soda ash scrubber must be verified prior to receiving and transferring soda ash into storage via pneumatic conveyor. 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 emission point for the previous six months.

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 1/30/2018.



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

