

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 9-1402-00435/00037



11/06/2002

Facility Identification Data

Name: PVS CHEMICALS
Address: 55 LEE ST
City: BUFFALO
Zip: 14210

Owner/Firm

Name: P V S CHEMICALS INC
City: BUFFALO
State: NY Country: USA Zip: 14210
Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:
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Division of Air Resources:
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Air Permitting Facility Owner Contact:
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55 LEE ST
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Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

PVS Chemicals Inc. (NY) is a manufacturer of all strengths and grades of sulfuric acid and oleum using the contact process at it's Buffalo, NY facility. The facility is not proposing any changes in facility operations as a result of this application. This Project is an initial Title V Permit for the PVS Chemicals Lee Street facility.

Attainment Status

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PVS CHEMICALS is located in the town of BUFFALO in the county of ERIE. The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

Criteria Pollutant	Attainment Status
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	MARGINAL NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor

Facility Description

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

Permit Structure and Description of Operations

The Title V permit for PVS CHEMICALS

is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the

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outdoor atmosphere, including any appurtenant exhaust system or air cleaning device.

[NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

PVS CHEMICALS is defined by the following emission unit(s):

Emission unit U00020 - 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 unit U00020 is associated with the following emission points (EP):
00005

It is further defined by the following process(es):

Process: 002 is located at GROUND, Building B3 - 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 unit U00030 - 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 CHEMICALS INC (NY).

Emission unit U00030 is associated with the following emission points (EP):
00018, 00019, 00020, 00022, 00023, 00029, 00070

It is further defined by the following process(es):

Process: 003 is located at YARD - 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.

Process: 004 is located at YARD - AS SULFURIC ACID IS ADDED TO A STORAGE VESSEL, THE STORAGE VESSEL IS VENTED TO THE ATMOSPHERE. SOME BREATHING LOSSES ALSO OCCUR AT THE STORAGE VESSEL. THERE ARE A TOTAL OF SIX VESSELS STORING

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SULFURIC ACID.

Emission unit U00040 - AS SALES DISTRIBUTION MANDATES, SULFUR TRIOXIDE (SO₃) IS STRIPPED FROM A STREAM OF FUMING SULFURIC ACID IN AN EVAPORATOR. THE SO₃ IS EITHER CONDENSED AND MIXED WITH COMMERCIAL GRADE FUMING SULFURIC ACID IN THE 65% OLEUM PROCESS TO FORM VARIOUS HIGHER STRENGTHS OF FUMING SULFURIC ACID OR THE SO₃ IS COMBINED WITH PURE WATER IN A SPECIALLY CONSTRUCTED ABSORPTION COLUMN TO FORM HIGH PURITY SULFURIC ACID. THERE ARE SEVERAL TANKS ASSOCIATED WITH THE STORAGE OF SALEABLE FUMING SULFURIC ACID. THE OLEUM PROCESS, THE 65% OLEUM PROCESS, THE HIGH PURITY SULFURIC ACID PROCESS, THE OLEUM STORAGE TANKS AND THE OLEUM TANK TRAILER, TANK CAR AND DRUM LOADING STATIONS ARE ALL CONNECTED TO A SCRUBBER WHICH REMOVES FREE SO₃ AND H₂SO₄ AEROSOL FROM THE GAS STREAM BEFORE BEING EMITTED. THERE ARE ALSO SEVERAL STORAGE TANKS ASSOCIATED WITH THE HIGH PURITY SULFURIC ACID PROCESS.

Emission unit U00040 is associated with the following emission points (EP):

00006, 00141, 00142, 00143, 00144

It is further defined by the following process(es):

Process: 005 is located at YARD - 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.

Process: 006 is located at GROUND, Building B2 - SULFUR TRIOXIDE IS STRIPPED FROM A STREAM OF FUMING SULFURIC ACID IN AN EVAPORATOR. THE SO₂ IS CONDENSED AND MIXED WITH COMMERCIAL GRADE FUMING SULFURIC ACID IN THE 65% OLEUM ABSORPTION PROCESS TO FORM VARIOUS HIGHER STRENGTHS OF FUMING SULFURIC ACID. THE 65% OLEUM ABSORPTION PROCESS IS VENTED TO THE OLEUM SCRUBBER.

Process: 007 is located at GROUND, Building B2 - AS VARIOUS STRENGTHS OF OLEUM ARE PRODUCED IN THE 65% OLEUM PROCESS, THE OLEUM IS TRANSFERRED TO STORAGE TANKS WHERE IT IS HELD FOR DISTRIBUTION. ALL OLEUM STORAGE TANKS ASSOCIATED WITH THE 65% OLEUM PROCESS ARE VENTED TO THE OLEUM SCRUBBER.

Process: 008 is located at GROUND, Building B2 - TO DISTRIBUTE THE OLEUM PRODUCED IN THE 65% OLEUM PROCESS, OLEUM IS TRANSFERRED TO TANK TRAILERS, RAILROAD TANK CARS AND DRUMS. ALL SHIPPING CONTAINERS ARE VENTED TO THE OLEUM SCRUBBER DURING TRANSFER. TRANSFERS MAY TAKE PLACE AT ANY TIME OF DAY OR NIGHT.

Process: 009 is located at GROUND, Building B2 - SULFUR TRIOXIDE IS STRIPPED FROM A STREAM OF FUMING SULFURIC ACID IN AN EVAPORATOR. THE SO₃ MIXED WITH PURE DRY AIR IS THEN COMBINED WITH PURE WATER IN A SPECIALLY CONSTRUCTED ABSORPTION COLUMN TO FORM HIGH PURITY SULFURIC ACID. AS THE DRY AIR EXITS THE PROCESS, IT CARRIES SULFURIC ACID MIST. THIS SPECIALLY CONSTRUCTION ABSORPTION COLUMN IS VENTED TO THE OLEUM SCRUBBER. FINISHED PRODUCT IS TRANSFERRED TO A SERIES OF STORAGE TANKS WHICH ARE VENTED TO ATMOSPHERE.

Emission unit U00050 - A SERIES OF 31% AND 35% HYDROCHLORIC ACID STORAGE TANKS ARE CONNECTED IN A VENT MANIFOLD AND VENTED THROUGH A WET

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SCRUBBER. ACTIVITIES AT THIS EMISSION UNIT INCLUDE TRANSFERS TO AND FROM THE STORAGE TANKS.

Emission unit U00050 is associated with the following emission points (EP):
00150

It is further defined by the following process(es):

Process: 010 is located at YARD - 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 THREE STORAGE TANKS ALL CONNECTED WITH A COMMON VENT HEADER. THE VENT HEADER VENTS THROUGH A SCRUBBER BEFORE BEING EXHAUSTED TO ATMOSPHERE.

Process: 011 is located at YARD - 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 unit U00060 - 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.

Emission unit U00060 is associated with the following emission points (EP):
00160

It is further defined by the following process(es):

Process: 012 is located at GROUND, Building B4 - 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 unit U00070 - PURE SULFUR DIOXIDE IS COMBINED WITH AQUEOUS DIETHANOLAMINE SOLUTION TO FORM AQUEOUS DIETHANOLAMINE SULFUR DIOXIDE ADDUCT IN A BATCH REACTOR. EXCESS SULFUR DIOXIDE IS VENTED TO AN ALKALINE SCRUBBER WHERE PROCESS EXHAUST OCCURS. THIS EMISSION UNIT ALSO INCLUDES AN AQUEOUS DIETHANOLAMINE STORAGE TANK AND AN AQUEOUS DIETHANOLAMINE SULFUR DIOXIDE ADDUCT STORAGE TANK.

Emission unit U00070 is associated with the following emission points (EP):
00170, 00171, 00172

It is further defined by the following process(es):

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Process: 014 is located at GROUND, Building B5 - PURE SULFUR DIOXIDE IS COMBINED WITH AQUEOUS DIETHANOLAMINE SOLUTION TO FORM AQUEOUS DIETHANOLAMINE SULFUR DIOXIDE ADDUCT (CONTAINING APPROXIMATELY 20% SO₂) IN A BATCH REACTOR. EXCESS SULFUR DIOXIDE IS VENTED TO AN ALKALINE SCRUBBER WHERE PROCESS EXHAUST OCCURS. THIS EMISSION UNIT ALSO INCLUDES AN AQUEOUS DIETHANOLAMINE STORAGE TANK AND AN AQUEOUS DIETHANOLAMINE SULFUR DIOXIDE ADDUCT STORAGE TANK.

Emission unit U00080 - 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.

Emission unit U00080 is associated with the following emission points (EP):

00180, 00181, 00182

It is further defined by the following process(es):

Process: 015 is located at Building B3 - 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.

Process: 016 is located at Building B3 - 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 unit U00090 - NATURAL GAS OR #2/#3 FUEL OIL IS BURNED IN A 25.0 MBTU/HR PACKAGE BOILER TO GENERATE STEAM FOR THE FACILITY.

Emission unit U00090 is associated with the following emission points (EP):

00028

It is further defined by the following process(es):

Process: 017 is located at GROUND, Building B1 - 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.

Process: 018 is located at ground floor, Building B1 - #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).

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Emission unit U00010 - SPENT SULFURIC ACID IS RECEIVED AT PVS (NY) IN TANK TRAILER AND TANK CAR QUANTITIES AND TRANSFERRED INTO ONE OF FOUR STORAGES. THIS EMISSION UNIT IS COMPRISED OF FOUR BULK CHEMICAL TANKS STORING SPENT SULFURIC ACID. TWO TANKS VENT TO ATMOSPHERE, TWO TANKS VENT TO SCRUBBER. SPENT SULFURIC ACID IS GENERALLY COMPRISED OF 60%-95% H2SO4, WITH HYDROCARBONS AND WATER AS CONTAMINANTS.

Emission unit U00010 is associated with the following emission points (EP): 00024, 00102, 00113

It is further defined by the following process(es):

Process: 001 is located at YARD - SPENT SULFURIC ACID IS RECEIVED FROM OFF-SITE IN RAILROAD TANK CARS AND IN TANK TRAILERS. AS SPENT SULFURIC ACID IS TRANSFERRED INTO A STORAGE TANK, THE TANK IS VENTED TO THE ATMOSPHERE THROUGH A FLAME ARRESTER. THERE ARE TWO SPENT SULFURIC ACID STORAGE TANKS FOR THIS PROCESS ON SITE WHICH CAN RECEIVE SPENT SULFURIC ACID AT ANY TIME OF DAY OR NIGHT.

Process: 020 is located at yard - SPENT SULFURIC ACID IS RECEIVED FROM OFF-SITE IN RAILROAD TANK CARS AND IN TANK TRAILERS. AS SPENT SULFURIC ACID IS TRANSFERRED INTO A STORAGE TANK, THE TANK IS VENTED THROUGH A SCRUBBER TO REMOVE SO2. THIS PROCESS DESCRIBES TWO SPENT SULFURIC ACID STORAGE TANKS WHICH CAN RECEIVE SPENT SULFURIC ACID AT ANY TIME OF DAY OR NIGHT.

Title V/Major Source Status

PVS CHEMICALS is subject to Title V requirements. This determination is based on the following information:

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

Program Applicability

The following chart summarizes the applicability of PVS CHEMICALS with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	NO
NSR (non-attainment)	NO
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO

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NSPS	NO
TITLE IV	NO
TITLE V	YES
TITLE VI	NO
RACT	NO
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in

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equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is out of compliance with specific requirements (see attached compliance schedule)
Compliance Schedule:

Location	Short Description	Regulation
Facility/EU/EP/Process/ES U-00020/00005/002/00005	Tables.	6NYCRR 212.9

Compliance Discussion:

PVS CHEMICALS is in violations of the following requirement(s): PVS Chemicals settled a long term enforcement dispute with the State, specifically, the New York State Attorney General's Office, on April 18, 2002. This enforcement action involved several Divisions of the Department, including the Division of Air Resources. A schedule outlining the steps and completion dates necessary for certification of the CEMS for sulfur dioxide was included in the settlement agreement. The pertinent CEMS action items and completion dates from the settlement agreement are included in the Compliance Plan of this permit.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code	Description
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INDUSTRIAL INORGANIC CHEMICALS

SCC Codes

SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
3-01-009-05	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - CLEANING CHEMICALS
3-01-011-98	CHEMICAL MANUFACTURING ALKALINE SAPONIFICATION CHEMICAL MANUFACTURING
3-01-999-98	CHEMICAL MANUFACTURING - HYDROCHLORIC ACID Handling and Storage (99.9% Removal)
3-01-021-22	CHEMICAL MANUFACTURING - OTHER NOT CLASSIFIED Specify in Comments Field
3-01-023-01	CHEMICAL MANUFACTURING - SODIUM CARBONATE SODA ASH STORAGE: LOADING & UNLOADING
3-01-023-21	CHEMICAL MANUFACTURING - SULFURIC ACID (CONTACT PROCESS) Absorber/@ 99.9% Conversion
1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
3-99-999-94	MISCELLANEOUS MANUFACTURING INDUSTRIES MISCELLANEOUS INDUSTRIAL PROCESSES Other Not Classified

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for

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that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
007664-41-7	AMMONIA	> 0	but < 2.5 tpy
000111-42-2	ETHANOL, 2,2'-IMINOBIS-(HAP)	> 0	but < 10 tpy
063149-47-3	ETHANOL, 2,2'-IMINOBIS-, COMPD. WITH SULFUR DIOXIDE	> 0	but < 2.5 tpy
007647-01-0	HYDROGEN CHLORIDE (HAP)	> 0	but < 10 tpy
007783-06-4	HYDROGEN SULFIDE	> 0	but < 2.5 tpy
000091-20-3	NAPHTHALENE (HAP)	> 0	but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	> 0	but < 2.5 tpy
0NY075-00-5	PM-10	> 0	but < 2.5 tpy
000497-19-8	SODIUM CARBONATE	> 0	but < 2.5 tpy
007704-34-9	SULFUR	> 0	but < 2.5 tpy
007446-09-5	SULFUR DIOXIDE	>= 250	tpy
007664-93-9	SULFURIC ACID	>= 100	tpy but < 250 tpy
010196-04-0	SULFUROUS ACID, DIAMMONIUM SALT	> 0	but < 2.5 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Sealing - 6NYCRR Part 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

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

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

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

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

Item C: Maintenance of Equipment - 6NYCRR Part 200.7

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

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

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

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

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

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

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

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

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

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

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

(4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

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

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

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

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

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

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

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

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

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request.

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Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

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

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request.

Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item K: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part 201-6.3(a)(4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item L: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item M: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item N: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6

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NYCRR Part 201-6.5(a)(3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item O: Providing Information Upon Request - 6 NYCRR Part 201-6.5(a)(4)

The permittee 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. The permittee shall also, on request, furnish the Department with copies of records required to be kept by the permit. Where information is claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

Item P: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item Q: Property Rights - 6 NYCRR Part 201-6.5(a)(6)

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

Item R: Fees - 6 NYCRR Part 201-6.5(a)(7)

The owner and/or operator of a stationary source shall pay fees to the department consistent with the fee schedule authorized by 6 NYCRR Subpart 482-2.

Item S: Right to Inspect - 6 NYCRR Part 201-6.5(a)(8)

Upon presentation of credentials and other documents, as may be required by law, the permittee shall allow the Department or an authorized representative to perform the following:

- i. Enter upon the permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

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- 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 facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- iv. As authorized by the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

Item T: Severability - 6 NYCRR Part 201-6.5(a)(9)

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

Item U: Progress Reports and Compliance Schedules - 6 NYCRR Part 201-6.5(d)(5)

Progress reports consistent with an applicable schedule of compliance must be submitted at least semiannually on a calendar year basis, or at a more frequent period if specified in the applicable requirement or by the Department elsewhere in this permit. These reports shall be submitted to the Department within 30 days after the end of a reporting period. 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.

Item V: Off Permit Changes - 6 NYCRR Part 201-6.5(f)(6)

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 provisions 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

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provides the Administrator and the Department with written notification in advance of the proposed changes within a minimum of 7 days as required by 6 NYCRR §201-6.5(f)(6).

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

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

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

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

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

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after

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promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

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

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

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

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

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

Item Y: Required Emission Tests - 6 NYCRR Part 202-1.1

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

Item Z: Visible Emissions Limited - 6 NYCRR Part 211.3

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six

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minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

Item AA: Open Fires - 6 NYCRR Part 215

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

Item BB: 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 CC: 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.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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

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

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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.

Regulatory Analysis

Location Facility/EU/EP/Process/ES	Regulation	Short Description	Condition
FACILITY	40CFR 82-F.	Protection of Stratospheric Ozone - recycling and emissions reduction	33
FACILITY	6NYCRR 200.5	Sealing.	1
FACILITY	6NYCRR 200.6	Acceptable ambient air quality.	2
FACILITY	6NYCRR 200.7	Maintenance of equipment.	3
FACILITY	6NYCRR 201-1.10(b)	Permitting - public access to records kept for Title V permitting	8
FACILITY	6NYCRR 201-1.2	Permitting - unpermitted emission sources	4
FACILITY	6NYCRR 201-1.4	Unavoidable noncompliance and violations	55
FACILITY	6NYCRR 201-1.5	Emergency defense	5
FACILITY	6NYCRR 201-1.7	Recycling and Salvage	6
FACILITY	6NYCRR 201-1.8	Prohibition of reintroduction of collected contaminants to the air	7
FACILITY	6NYCRR 201-3.2(a)	Exempt Activities - Proof of eligibility	9
FACILITY	6NYCRR 201-3.3(a)	Trivial Activities - proof of eligibility	10
FACILITY	6NYCRR 201-5.	State Facility Permit General Provisions	56
FACILITY	6NYCRR 201-5.3(b)	Permit Content and Terms of Issuance - permit conditions	57
FACILITY	6NYCRR 201-6.	Title V Permits and the Associated Permit Conditions	17, 19, 12, 14, 15, 18, 20, 21, 22, 23, 34, 35, 11, 13, 16
FACILITY	6NYCRR 201-6.5(c)(3)(ii)	Permit conditions for	24

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		Recordkeeping and Reporting of Compliance Monitoring	
FACILITY	6NYCRR 201-6.5(e)	Compliance Certification	25
FACILITY	6NYCRR 201-6.5(g)	Permit shield	26
FACILITY	6NYCRR 202-1.1	Required emissions tests.	27
FACILITY	6NYCRR 202-2.1	Emission Statements - Applicability	28
FACILITY	6NYCRR 202-2.5	Emission Statements - record keeping requirements.	29
FACILITY	6NYCRR 211.2	General Prohibitions - air pollution prohibited.	58
FACILITY	6NYCRR 211.3	General Prohibitions - visible emissions limited	30
U-00050/00150	6NYCRR 212.4(a)	General Process Emission Sources - emissions from new sources and/or modifications	59
U-00070/00170	6NYCRR 212.4(a)	General Process Emission Sources - emissions from new sources and/or modifications	60
U-00020/00005/002/00005	6NYCRR 212.6	Opacity Limitation	42
U-00060/00160/012/00160	6NYCRR 212.6	Opacity Limitation	48
U-00010/-/001	6NYCRR 212.6(a)	General Process Emission Sources - opacity of emissions limited	36
U-00040/00006	6NYCRR 212.6(a)	General Process Emission Sources - opacity of emissions limited	46
U-00010/-/020/00102	6NYCRR 212.9	Tables.	37
U-00010/-/020/00103	6NYCRR 212.9	Tables.	38
U-00010/00102/020/00104	6NYCRR 212.9	Tables.	39
U-00020/00005/002/00005	6NYCRR 212.9	Tables.	44, 45, 43
U-00040/00006	6NYCRR 212.9	Tables.	47
U-00060/00160/012/00160	6NYCRR 212.9	Tables.	49
U-00060/00160/012/00161	6NYCRR 212.9	Tables.	50
U-00080/-/016/00181	6NYCRR 212.9	Tables.	51
U-00080/00182/015/00182	6NYCRR 212.9	Tables.	52, 53
U-00020/00005	6NYCRR 212.9(a)	Tables.	40
FACILITY	6NYCRR 215.	Open Fires	31
U-00020/00005	6NYCRR 224.2(b)	Sulfuric acid production.	41
FACILITY	6NYCRR 225-1.2(a)(2)	Sulfur in Fuel Limitations Post 12/31/87.	32
U-00090	6NYCRR 227-1.3(a)	Smoke Emission Limitations.	54

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

6NYCRR Part 200-5

Allows for the sealing of non-compliant air contamination sources

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6NYCRR Part 200-.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6NYCRR Part 200-.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.2

Any existing emission source that is required to be permitted or registered but has not done so, must apply for the necessary permit or registration. The source is subject to all regulations that were applicable at the time the original permit or registration was required as well as any subsequent applicable requirements that came into effect since.

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.5

An enforcement action may be avoided if the facility can demonstrate that an emergency situation occurred which resulted in an emission limitation or permit violation. The following information would constitute evidence of an emergency situation: a properly signed operating log recorded during the actual event which; identifies the cause(s) of the emergency, indicates that all equipment was operating properly at the time, the person responsible took all reasonable steps to minimize the exceedance or violation, and that the department was notified of the emergency within 2 working days of the event.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-1.10(b)

Any permit application, compliance plan, permit, and monitoring and compliance certification report that is submitted as part of the Title V permit process must be made available to the public as per requirements set forth under 6 NYCRR Part 616 -

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Public Access to Records and section 114(c) of the Clean Air Act Amendments of 1990.

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, 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.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-5

This regulation applies to those permit terms and conditions which are not federally enforceable. It specifies the applicability criteria for state facility permits, the information to be included in all state facility permit applications as well as the permit content, terms of permit issuance, and sets guidelines for modifying state facility permits and allowing for operational flexibility. For permitting purposes, this rule specifies the need to list all emission units except those that are exempt or trivial pursuant to Subpart 201-3 in the permit application and provide a description of the emission unit's processes and products. Finally, this rule also provides the Department the authority to include this and any other information that it deems necessary to identify applicable Federal standards, recordkeeping and reporting requirements, and establish terms and conditions that will ensure compliance with the national ambient air quality standards.

6NYCRR Part 201-5.3(b)

Lists those contaminants subject to contaminant specific requirements

6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to

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be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR Part 201-6.5(g)

Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the federally enforceable portion of the permit, unless they are specifically addressed by it.

6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1

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

6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

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40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

Facility Specific Requirements

In addition to Title V, PVS CHEMICALS has been determined to be subject to the following regulations:

6NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 212 .4 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July 1, 1973) process emission sources.

6NYCRR 212 .6

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6NYCRR 212 .6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6NYCRR 212 .9

This section of the regulation contains the descriptions and definitions of the environmental ratings system and the tables which set the emission standards for each rating.

6NYCRR 212 .9 (a)

This rule contains Table 1, which describes the criteria for determining the environmental rating of a specific air contaminant.

6NYCRR 224 .2 (b)

This rule sets emission limits for sulfuric acid mist from existing, new, and modified sources.

6NYCRR 225-1.2 (a) (2)

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This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

6NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

Compliance Certification

Summary of monitoring activities at PVS CHEMICALS:

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
FACILITY	record keeping/maintenance procedures	24
FACILITY	record keeping/maintenance procedures	25
FACILITY	record keeping/maintenance procedures	28
U-00050/00150	monitoring of process or control device parameters as surrogate	59
U-00070/00170	monitoring of process or control device parameters as surrogate	60
U-00020/00005/002/00005	monitoring of process or control device parameters as surrogate	42
U-00060/00160/012/00160	monitoring of process or control device parameters as surrogate	48
U-00010/-/001	monitoring of process or control device parameters as surrogate	36
U-00040/00006	monitoring of process or control device parameters as surrogate	46
U-00010/-/020/00102	record keeping/maintenance procedures	37
U-00010/-/020/00103	record keeping/maintenance procedures	38
U-00010/00102/020/00104	monitoring of process or control device parameters as surrogate	39
U-00020/00005/002/00005	record keeping/maintenance procedures	43
U-00020/00005/002/00005	record keeping/maintenance procedures	44
U-00040/00006	monitoring of process or control device parameters as surrogate	47
U-00060/00160/012/00160	monitoring of process or control device parameters as surrogate	49
U-00060/00160/012/00161	monitoring of process or control device parameters as surrogate	50
U-00080/-/016/00181	record keeping/maintenance procedures	51
U-00080/00182/015/00182	monitoring of process or control device parameters as surrogate	52
U-00080/00182/015/00182	record keeping/maintenance procedures	53
U-00020/00005	record keeping/maintenance procedures	40
U-00020/00005	record keeping/maintenance procedures	41
FACILITY	work practice involving specific operations	32
U-00090	monitoring of process or control device parameters as surrogate	54

Basis for Monitoring

Most of the monitoring requirements contained in this permit are based on specific monitoring methods and observations as prescribed in the applicable rules. Facility specific monitoring conditions were

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written to assure that reliable information is obtained representing the facility's compliance status for the following issues:

Opacity (conditions #36 & 48):

Visible emissions at PVS Chemicals are restricted to 20% average opacity during any six consecutive minutes per 6 NYCRR Part 212.6(a). These conditions specifically require the facility operator to observe all emission points in emission unit U-00010 (except 00113 and 00024) and emission point 00160 once per day during daylight hours to determine if any unusual opacity conditions exist. Based on operational limits imposed on the facility by other applicable rules, the chosen monitoring method and frequency are adequate and reasonable for determining compliance with the opacity standard.

Opacity (conditions #42 & 46):

Visible emissions at PVS Chemicals are restricted to 20% average opacity during any six consecutive minutes per 6 NYCRR Part 212.6(a). These conditions specifically require the facility operator to observe emission points 00005 & 00006 hourly to determine if any unusual opacity conditions exist. Additionally, these emission points are also periodically monitored by the operator via video monitor. Based on operational limits imposed on the facility by other applicable rules, the chosen monitoring method and frequency are adequate and reasonable for determining compliance with the opacity standard.

Spent Sulfuric Acid Tanks (conditions #37 & 38):

These conditions require the spent sulfuric acid tanks, which vent through a scrubber, to be maintained under negative pressure to minimize the release of sulfur dioxide. Reasonable compliance assurance is provided by requiring daily verification of the tank's negative pressure and the operational limits imposed on the scrubber by other monitoring conditions.

Scrubbers (conditions #39, 47, 49, 50, 51, 52, 53, 59, & 60):

Various surrogate scrubber parameters (pH, presence and quantity of flow, concentration, control efficiency) were chosen as compliance indicators because proper operation of the scrubbers were documented at the specific levels.

Continuous Emission Monitoring System (CEMS) (conditions #43 & 44):

These conditions require proper operation, maintenance, performance testing, record keeping, and reporting associated with a Continuous Emission Monitoring System (CEMS) used to monitor sulfur dioxide emissions from emission point 00005. Emission point 00005 is the facility's primary emission point for sulfur dioxide and, as such, necessitates continuous knowledge of the emission levels for compliance assurance. The requirements specified in the condition are standard procedures for a CEMS. Compliance with these requirements will be assured via the force of the Title V permit.

Sulfur Dioxide Environmental Rating (condition #40):

This condition provides the rationale for revising the sulfur dioxide environmental rating from "D" to "B" for emission unit U-00020. It is an appropriate, standard practice to use the Title V permit review process to require PVS to revise an environmental rating based on new information. Current toxicity information provides significant grounds for revising the environmental rating to a higher, more restrictive rating. The condition provides PVS with two options for determining an appropriate new emission limit and sets reasonable time frames for completion.

Sulfuric Acid Emission Limit (condition #41):

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This condition requires PVS to determine if it is in compliance with the sulfuric acid mist emission limit found in 6 NYCRR Part 224.2(b). Equipment upgrades may be necessary to bring PVS into compliance with Part 224 within one year of Title V permit issuance. The condition sets reasonable time frames for determining or achieving compliance. It is an appropriate, standard practice to use the Title V permit review process to require PVS to prove/achieve compliance with a regulation (Part 224) which was promulgated after a consent order (#81-79) establishing an emission limit was finalized.