

Bay Area Air Quality Management District

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Permit Evaluation and Statement of Basis for RENEWAL of the

MAJOR FACILITY REVIEW PERMIT

for
Rhodia, Inc.
Facility #B1661

Facility Address:
100 Mococo Road
Martinez, CA 94553

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Application Engineer: Jimmy Cheng
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Application: 15374

December 2011

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Title V Statement of Basis

A. Background

This facility is subject to the Major Facility Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations, and BAAQMD Regulation 2, Rule 6, Major Facility Review, because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” (as defined by BAAQMD Regulation 2-6-218) more than 100 tons per year of a regulated air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70. The permits must contain all applicable requirements (as defined in 40 CFR § 70.2), “monitoring requirements”, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

Pursuant to Regulation 2, Rule 6, section 416, the District has reviewed the terms and conditions of this Major Facility Review permit and determined that they are still valid and correct. This review included an analysis of all applicability determinations for all sources, including those that have been modified or permitted since the issuance of the initial Major Facility Review Permit. The review also included an assessment of the sufficiency of all monitoring for determination of compliance with applicable requirements.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit. The identifier for this facility is B1661.

This facility received its initial Title V permit on **5/30/02**. This application is for a permit renewal. Although the current permit expired on **7/30/07**, it continues in force until the District takes final action on the permit renewal. The standard sections of the permit have changed since **5/30/02**. The proposed permit shows all changes to the permit in ~~strikeout~~/underline format.

B. Facility Description

The facility produces sulfuric acid and oleum from elemental sulfur, spent sulfuric acid, lube spent acid, and other process materials by burning these materials to produce sulfur dioxide (SO₂), using a catalyst to convert the sulfur dioxide to sulfur trioxide (SO₃), then absorbing the sulfur trioxide in water to produce sulfuric acid (H₂SO₄). Ammonium bisulfite fertilizer is a commercial byproduct. The specific equipment at this facility is listed in Section II, Equipment, of the permit.

Since the District issued the initial Title V permit for Rhodia, Inc. on **5/30/02**, the facility has submitted two New Source Review applications. The Title V permit has not been revised since the initial permit was issued.

1. Title V Application 16202 was submitted on 5/23/07 for a minor modification to the Title V permit. This application was to replace all references of S-6 Fire Pump Engine with S-56 Fire Pump Engine in the Title V permit. A separate permit revision will not be issued to address these changes. Rather, the changes covered by this application will be reflected in the proposed the renewal Title V permit.
2. Application 16079 was submitted on 5/1/07 for a new Standby Diesel Fire Pump Engine (S-56) that replaced an existing, inoperable Standby Diesel Fire Pump Engine (S-6). There is no increase in emissions for this application because the emissions for the new pump are lower than for the previous pump.
3. Title V Application 16756 was submitted on 10/1/07 for a significant modification to the Title V permit. This application was for the incorporation of Consent Decree requirements and other administrative changes to the Title V permit. Rhodia, Inc. entered into a Consent Decree with the U.S. EPA, the U.S. Department of Justice, and other "State Parties," including the BAAQMD. The Consent Decree mandates emission limits for sulfuric acid mist and SO₂. A separate permit revision will not be issued to address these changes. Rather, the changes covered by this application will be reflected in the proposed renewal Title V permit.
4. Application 21157 was submitted on 10/7/09 for a new Sulfuric Acid Cleaning Operation (S-57) that is abated by an SO₂ Portable Caustic Scrubber (A-57). This application increased annual SO₂ (0.147 tpy) emissions at Rhodia, Inc.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order that they are presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions derive from 40 CFR § 70.6, Permit Content, and BAAQMD Regulation 26-409 that dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to permit:

The dates of adoption and approval of rules in Standard Condition 1.A have been updated.

BAAQMD Regulation 2, Rule 5 - New Source Review of Toxic Air Contaminants and SIP Regulation 2, Rule 6 - Permits, Major Facility Review have been added to Standard Condition 1.A.

The dates of MFR Permit issuance and expiration in Standard Condition 1.B have been updated.

The deadlines for the permit holder to submit an application for MFR permit renewal have been updated.

The following correction was made to Standard Condition I.B.1: "If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after []."

The following language was added to Standard Condition I.B.1: "If the permit renewal has not been issued by [], but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application." This is the "application shield" pursuant to BAAQMD Regulation 2-6-407.

BAAQMD Regulation 2-6-409.20 has been added as a basis for Standard Condition I.B.11 because it was previously omitted.

The following language was added as Standard Condition I.B.12: "The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)." The purpose is to reiterate that the Permit Holder is responsible for ensuring that all activities at the facility comply with all applicable requirements.

The basis BAAQMD Regulation 3 has been deleted from Standard Condition I.E.

The dates of the first reporting period and deadline for the report have been deleted from Standard Condition I.F because this is an obsolete requirement.

The following change has been made to Standard Condition I.F: "~~Subsequent r~~Reports shall be submitted for the following periods: July 1st~~November 1st~~ through December 31st~~April 30th~~ and January 1st~~May 1st~~ through June 30th~~October 31st~~, and are due on the last day of the month after the end of the reporting period."

The following language has been deleted from Standard Condition I.F: "The first reporting period for this permit shall be [date of issuance] to [six months later]. The report shall be submitted by [one month after end of reporting period]."

The basis BAAQMD Regulation 3 has been deleted from Standard Condition I.F.

The following correction was made to Standard Condition I.G: “The certification period will be January 1st~~July 1st to~~through December 31st~~June 30th~~. The certification shall be submitted by January 31st~~May 31st~~ of each year.”

Condition I.J has been added to ensure that facilities do not exceed their capacity limits.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to of emit more than 2 tons per year of a “regulated air pollutant” as defined in BAAQMD Rule 2-6-222, or 400 pounds per year of a “hazardous air pollutant” as defined in BAAQMD Rule 2-6-210.

All abatement devices that control permitted or significant sources are listed. Each abatement device is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will have an “S” number.

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

Following are explanations of the differences in the source list between the time that the initial Title V permit was issued and the renewal permit proposal date:

Devices Removed from Service or Archived since Application was submitted:

S-38 Sulfur Dioxide Transload System is permanently out of service.

S-48 PEP Conveying and Sizing Subsystem is permanently out of service.

S-49 PEP Fluidized Bed Dryer Subsystem is permanently out of service.

Devices Permitted since Application was submitted:

An Authority to Construct was issued for S-56 Standby Diesel Fire Pump Engine on 6/6/07 under application 16079.

A Permit to Operate was issued for S-57 Sulfuric Acid Cleaning Operation on 1/19/10 under application 21157.

Devices with Changed Permit Status:

None

District permit applications not included in this proposed permit

None

Corrections to Devices Shown in Application

None

Changes to permit:

The following changes were made to Table II-A:

- S-38 Sulfur Dioxide Transload System, deleted, removed from service
- S-48 PEP Conveying and Sizing Subsystem, deleted, removed from service
- S-49 PEP Fluidized Bed Dryer Subsystem (natural gas), deleted, removed from service
- Added S-56 Standby Diesel Fire Pump Engine
- Added S-57 Sulfuric Acid Cleaning Operation

The following changes were made to Table II-B:

- Changed BAAQMD Regulation 6 references to BAAQMD Regulation 6-1 references
- For A-2, revised the Operating Parameters description to be consistent with the pH requirement in BAAQMD Condition #17734, part 17a
- A-6 Simple Cyclone, deleted, removed from service
- A-7 Venturi Scrubber, deleted, removed from service
- For A-11, deleted the Operating Parameters descriptions from the rows pertaining to BAAQMD Regulations 6-1-301, 6-1-310, and 6-1-311 because the pH requirement is not associated with these regulations

- For A-11, revised the Operating Parameters description to be consistent with the pH requirement in BAAQMD Condition #17734, part 17b
- A-57 SO2 Portable Caustic Scrubber, added per NSR # 21157

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Section VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered a significant source pursuant to the definition in BAAQMD Rule 2-6-239.

Changes to permit:

Language has been added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision allows contractors that have "portable" equipment permits that require them to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sand-blasting or soil-vapor extraction equipment.

The following correction was made to Section III: "The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable."

The following clarification was made to Section III: "The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors."

Section III has been modified to say that SIP standards are now found on EPA's website and are not included as part of the permit.

The note regarding SIP information from the Rule Development Section has been deleted since the SIP standards are now found on the EPA website.

Table III has been updated by adding the following rules and standards to conform to current practice:

- BAAQMD 2-1-429, Federal Emissions Statement
- SIP Regulation 2, Rule 1, General Requirements
- SIP Regulation 2-1-429, Federal Emissions Statement
- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- SIP Regulation 5, Open Burning
- Regulation 6, Particulate Matter and Visible Emissions, was renumbered as Regulation 6, Rule 1, and renamed as Particulate Matter, General Requirements on December 5, 2007.

The equivalent rule in the State Implementation Plan (SIP) is Regulation 6, Particulate Matter and Visible Emissions, which was approved in a Federal Register notice of September 4, 1998. The BAAQMD rule is technically not federally enforceable, although the requirements are identical. This change is also reflected in the Section IV and VII

- Regulation 8, Rule 2, Miscellaneous Operations
- SIP Regulation 8, Rule 2, Miscellaneous Operations
- SIP Regulation 8, Rule 3, Architectural Coatings
- Regulation 8, Rule 4, General Solvent and Surface Coating Operations
- Regulation 8, Rule 15, Emulsified and Liquid Asphalts
- BAAQMD Regulation 8, Rule 40 Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- SIP Regulation 8, Rule 40, Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- BAAQMD Regulation 8, Rule 47, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 8, Rule, 47, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 8, Rule 51, Adhesive and Sealant Products
- SIP Regulation 9, Rule 1, Inorganic Gaseous Pollutants — Sulfur Dioxide
- California Health and Safety Code Section 41750 et seq., Portable Equipment
- California Health and Safety Code Section 44300 et seq., Air Toxics “Hot Spots” Information and Assessment Act of 1987
- California Health and Safety Code Section 93115 et seq., Airborne Toxic Control Measure for Stationary Compression Ignition Engines
- California Health and Safety Code Title 17, Section 93116, Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- 40 CFR Part 61, Subpart M, National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos
- 40 CFR Part 82, Protection of Stratospheric Ozone
- Subpart F, 40 CFR 82.156, Leak Repair
- Subpart F, 40 CFR 82.161, Certification of Technicians
- Subpart F, 40 CFR 82.166, Records of Refrigerant

The dates of adoption or approval of the rules and their "federal enforceability" status in Table III have also been updated.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the

SIP rule is not the current District rule, the SIP rule or the necessary portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless they have been approved by EPA through another program.

- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations that are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit.

Complex Applicability Determinations:

Applicability of EPA NESHAPs

One of the goals of the federal Clean Air Act is to reduce the emission of Hazardous Air Pollutants (HAPs). The reduction of HAPs is achieved through the promulgation of, and compliance with, emission standards for categories of sources that emit HAPs. The United States Environmental Protection Agency (EPA) identified 30 HAPs that pose the greatest threat to public health in urban areas. The U.S. EPA has identified categories of sources that account for 90 percent of the release of these particular HAPs and is now promulgating standards to reduce their emissions. These federal standards are referred to as the National Emissions Standards for Hazardous Air Pollutants (NESHAP). The four NESHAPs (in 40 CFR, Part 63) pertinent to this facility are:

Subpart B- Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j)

Subpart DDDDD- National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Subpart JJJJJ- National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Subpart B and Subpart DDDDD apply to only major sources of HAPs, Subpart JJJJJ applies to only area sources of HAPs, and Subpart ZZZZ applies to both major and area sources of HAPs. A major source of HAPs is one in which the maximum plant-wide potential to emit of all HAPs (including fugitive emissions) is greater than or equal to 10 tons per year of a single HAP or HAP compound category, or is greater than or equal to 25 tons per year of aggregated HAPs or HAP compound categories. An area source of HAPs is one that is not a major source of HAPs (that is, one that is a minor source of HAPs).

As demonstrated in the tables below, Rhodia is an area source of HAPs. The sources that emit HAPs at this facility are: S-1 Sulfuric Acid Plant, S-2 Auxiliary Boiler, S-3 Natural Gas Preheater Furnace, S-30 Gasoline Dispensing Island, and S-56 Standby Diesel Fire Pump Engine. The emissions below were calculated by multiplying the data in the “Source Capacities” table to the data in the “Emission Factors” table for each source.

Source Capacities

NO.	SOURCE	MATERIAL	UNITS	SOURCE CAPACITY
S-1	SULFURIC ACID PLANT [*]	H2SO4 Produced	tons/day	No HAPs
		Natural Gas	MMBtu/hr	60.0
		Fuel Oil	MMBtu/hr	35.0
S-2	AUXILIARY BOILER	Natural Gas	MMcf	978
S-3	NATURAL GAS PREHEATER FURNACE	Natural Gas	MMcf	986
S-16	T-2 SULFUR STORAGE TANK	Sulfur	Mgal	No HAPs
S-17	T-14 SULFUR STORAGE TANK	Sulfur	Mgal	No HAPs
S-18	T-12 SULFUR STORAGE TANK	Sulfur	Mgal	No HAPs
S-19	T-1 ALKY STORAGE TANK	Spent alkylate	Mgal	No HAPs
S-20	T-3 ALKY STORAGE TANK	Spent alkylate	Mgal	No HAPs
S-30	GASOLINE DISPENSING ISLAND	Gasoline	Mgal	0.4
S-38	SULFUR DIOXIDE LOAD SYSTEM	Sulfur Dioxide	tons/hr	No HAPs
S-50	T-16 SULFUR STORAGE TANK	Sulfur	Mgal	No HAPs
S-51	T-19 OLEUM STORAGE TANK	Oleum	Mgal	No HAPs
S-52	OLEUM TRUCK LOADING	Oleum	tons/hr	No HAPs
S-54	SPENT ALKY SULFURIC ACID PROCESS TANK	Lube Spent Acid	Mgal	No HAPs
S-55	SPENT ALKY SULFURIC ACID TRUCK RECEIVING	Custom, tank truck unloading	tons/hr	No HAPs
S-56	STANDBY DIESEL FIRE PUMP ENGINE	Diesel Fuel	bhp	160
		Operating Hours	hr	50
S-57	SULFURIC ACID CLEANING OPERATION	Tank Residues and Cleaning Solution	Mgal	No HAPs
A-5	FLARE [*]	Natural Gas	MMcf	No HAPs

^{*} A-5 Flare does not operate so long as S-1 Sulfuric Acid Plant is in operation.

Emission Factors

NO.	SOURCE	HAZARDOUS AIR POLLUTANT	ESTIMATED OR MEASURED EMISSION FACTORS			REFERENCE		
			Lbs/UNIT	EFF	Lbs/UNIT			
S-1	SULFURIC ACID PLANT (1) -H2SO4 Produced (tons) -NATURAL GAS (MMBtu) -FUEL OIL (MMBtu)	No HAPs	No HAPs	No HAPs	No HAPs	-		
		Benzene	0.000	99%	0.000	AP-42, Table 1.4-3		
		Formaldehyde	0.000	99%	0.000	AP-42, Table 1.4-3		
		Benzene	0.000	99%	0.000	AP-42, Table 1.3-9		
		Formaldehyde	0.0002	99%	0.0000	AP-42, Table 1.3-9		
		PAH's	0.0000	99%	0.0000	AP-42, Table 1.3-9		
S-2	AUXILIARY BOILER -NATURAL GAS (MMscf)	Benzene	0.006	0%	0.006	CARB, February 1986		
		Formaldehyde	0.093	0%	0.093	EPA-450/4-84-007e		
S-3	NATURAL GAS PREHEATER FURNACE -NATURAL GAS (MMscf)	Benzene	0.006	0%	0.006	CARB, February 1986		
		Formaldehyde	0.093	0%	0.093	EPA-450/4-84-007e		
S-16	T-2 SULFUR STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-17	T-14 SULFUR STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-18	T-12 SULFUR STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-19	T-1 ALKY STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-20	T-3 ALKY STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-30	GASOLINE DISPENSING ISLAND	Benzene	0.084	98%	0.0017	CARB Speciation, BAAQMD 8-7-301		
		Toluene	0.120	98%	0.0024	CARB Speciation, BAAQMD 8-7-301		
		Xylene	0.120	98%	0.0024	CARB Speciation, BAAQMD 8-7-301		
S-38	SULFUR DIOXIDE LOAD SYSTEM	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-40	T-16 SULFUR STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-51	T-19 OLEUM STORAGE TANK	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-52	OLEUM TRUCK LOADING	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-54	LUBE SPENT ACID TRUCK UNLOADING	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-55	LSA TRUCK RECEIVING FACILITY	No HAPs	No HAPs	No HAPs	No HAPs	-		
S-56	STANDBY DIESEL FIRE PUMP ENGINE (2) -DIESEL (MMBtu) -DIESEL (hp-hr)	Benzene	0.000933	0%	0.0009	AP-42, Table 3.3-2		
		Formaldehyde	0.00118	0%	0.0012	AP-42, Table 3.3-2		
		Toluene	0.000409	0%	0.0004	AP-42, Table 3.3-2		
		Xylene	2.84E-04	0%	0.0003	AP-42, Table 3.3-2		
		1,3 Butadiene	3.91E-05	0%	0.0000	AP-42, Table 3.3-2		
		Acetaldehyde	7.67E-04	0%	0.0008	AP-42, Table 3.3-2		
		Acrolein	9.25E-05	0%	0.0001	AP-42, Table 3.3-2		
		PAH's	1.68E-04	0%	0.0002	AP-42, Table 3.3-2		
		Benzene	0.133285714	0%	0.1333	AP-42, Table 3.3-2		
		Formaldehyde	0.168571429	0%	0.1686	AP-42, Table 3.3-2		
		Toluene	0.058428571	0%	0.0584	AP-42, Table 3.3-2		
		Xylene	0.040571429	0%	0.0406	AP-42, Table 3.3-2		
		1,3 Butadiene	0.000585714	0%	0.0006	AP-42, Table 3.3-2		
		Acetaldehyde	0.109571429	0%	0.1096	AP-42, Table 3.3-2		
		Acrolein	0.013214286	0%	0.0132	AP-42, Table 3.3-2		
		PAH's	0.024	0%	0.0240	AP-42, Table 3.3-2		
		S-57	SULFURIC ACID CLEANING OPERATION	No HAPs	No HAPs	No HAPs	No HAPs	-
		A-5	FLARE (1) -NATURAL GAS (MMBtu)	Benzene	0.000	0%	0.000	AP-42, Table 1.4-3
Formaldehyde	0.000			0%	0.000	AP-42, Table 1.4-3		

(1) All fuel combustion emissions at S-1 are reduced by more than 99% due to process gas cleaning system and the S-1 abatement device (A-11). As published in AP-42 documentation, average fuel heat contents at S-1 and A-5 were estimated to be 1,020 MMBtu/MMscf natural gas and 150 MMBtu/1,000 gal No. 6 fuel oil.

(2) As with footnote (a) to AP-42 Table 3.3-1, an average brake-specific fuel consumption (BSFC) of 0.007 MMBtu/hp-hr was used to convert from lb/MMBtu to lb/hp-hr.

Source HAP Emissions

NO.	SOURCE	HAZARDOUS AIR POLLUTANT	POTENTIAL EMISSIONS (tons/year)
S-1	SULFURIC ACID PLANT		
	-H2SO4 Produced (tons)	None	None
	-NATURAL GAS (MMscf)	Benzene Formaldehyde	0.0000 0.0002
S-2	AUXILIARY BOILER		
	-NATURAL GAS (MMscf)	Benzene Formaldehyde	0.00293 0.0455
	-FUEL OIL (Mgal)	Benzene Formaldehyde PAH's	0.0000 0.0003 0.0000
S-3	NATURAL GAS PREHEATER FURNACE		
	-NATURAL GAS (MMscf)	Benzene Formaldehyde	0.002957 0.04583
S-16	T-2 SULFUR STORAGE TANK	None	None
S-17	T-14 SULFUR STORAGE TANK	None	None
S-18	T-12 SULFUR STORAGE TANK	None	None
S-19	T-1 ALKY STORAGE TANK	None	None
S-20	T-3 ALKY STORAGE TANK	None	None
S-30	GASOLINE DISPENSING ISLAND	Benzene	0.00000034
		Toluene	0.00000048
		Xylene	0.00000048
S-38	SULFUR DIOXIDE LOAD SYSTEM	None	None
S-50	T-16 SULFUR STORAGE TANK	None	None
S-51	T-19 OLEUM STORAGE TANK	None	None
S-52	OLEUM TRUCK LOADING	None	None
S-54	LUBE SPENT ACID TRUCK UNLOADING	None	None
S-55	LSA TRUCK RECEIVING FACILITY	None	None
S-56	STANDBY DIESEL FIRE PUMP ENGINE	Benzene	0.533
		Formaldehyde	0.674
		Toluene	0.234
		Xylene	0.162
		1,3 Butadiene	0.022
		Acetaldehyde	0.438
		Acrolein	0.053
		PAH's	0.096
S-57	SULFURIC ACID CLEANING OPERATION	None	None
A-5	FLARE		
	-NATURAL GAS (MMscf)	None	None
Highest Single-HAP PTE			0.674
Total HAPs PTE			2.311

Therefore, Subparts B and DDDDD do not apply to Rhodia. Subpart JJJJJ does not apply to Rhodia because gas-fired boilers are not subject to this subpart; S-2 Auxiliary Boiler is a gas-fired boiler.

Subpart ZZZZ consists of four standards, or four rules. The standards were developed with the first rule, promulgated in 2004, regulating RICE rated greater than 500 HP at only the major sources of HAPs. In 2008, the second rule incorporated RICE rated less than or equal to 500 HP at major sources, as well as area sources with RICE greater than 500 HP. The last two rules finalizing the Subpart ZZZZ were promulgated in 2010 and expanded those regulated by adding RICE rated less than or equal to 500 HP at area sources. The area source requirements in Subpart ZZZZ apply to the reciprocating internal combustion engine (RICE) at this facility: S-56 Standby Diesel Fire Pump Engine. Applicable requirements for Subpart ZZZZ have been included in the proposed Title V permit, including the future effective dates.

Applicability of 40 CFR, Part 64, Compliance Assurance Monitoring

The Compliance Assurance Monitoring (CAM) regulation in 40 CFR, Part 64 was developed to provide assurance that facilities comply with applicable emissions limitations by adequately monitoring control devices. The CAM rule was effective on November 21, 1997. However, most facilities are not affected by CAM requirements until they submit applications for Title V permit renewal. CAM applies to a source of criteria pollutant or hazardous air pollutant (HAP) emissions if all the following requirements are met:

- The source is located at a major source for which a Title V permit is required; and
- The source is subject to a federally enforceable emission limitation or standard for criteria pollutant or HAP; and
- The source uses a control device to comply with the federally enforceable emission limitation or standard; and
- The source has potential pre-control emissions of the regulated pollutant that are equal to or greater than the major source threshold for the pollutant (in BAAQMD, the major source thresholds are 100 tons per year for each criteria pollutant, 10 tons per year for a single HAP, and 25 tons per year for two or more HAPs); and
- The source is not otherwise exempt from CAM.

The applicability of 40 CFR, Part 64, Compliance Assurance Monitoring, was reviewed for the sources at this facility that use control devices to comply with federally enforceable emission limitations or standards.

A-11 Ammonia Scrubber, abating S-1 Sulfuric Acid Plant

A-11 is required to comply with the federally enforceable emissions limit of 0.15 gr/dscf PM and 0.04 gr/dscf SO₃ and H₂SO₄. Daily pH monitoring is the existing monitoring requirement in the District Permit Conditions (Condition #17734) for A-11, and is currently used for determining compliance with the District permit condition limits for pH (pH>3.5 and <14).

CAM applies for S-1 because S-1 has potential pre-control emissions of H₂SO₄ greater than 100 tons per year. Based on the facility's estimate of the maximum sulfuric acid mist concentration of

7.3 mg/scf and the capacity of A-11 of 89,900 cfm, the potential pre-control emissions of H2SO4 are:

$$(7.3E-3 \text{ g/dscf}) \times (89900 \text{ dscfm}) \times (525600 \text{ min/yr}) / (453.6 \text{ g/lb}) / (2000 \text{ lbs/ton}) = 380.2 \text{ TPY H}_2\text{SO}_4$$

The District has determined that in order to render the current A-11 permit conditions equivalent to CAM, additional permit conditions are necessary that would provide further assurance of ongoing compliance with the existing District pH limits for A-11 (pH>3.5 and <14). These permit conditions include specific requirements, such as equipment investigations and corrective actions, in the case of an excursion of the pH limits. Condition #17734 has been revised to include such CAM-equivalent permit conditions, and applicable requirements for CAM have been included in the proposed Title V permit.

The following table provides the results of previous annual source tests conducted at the stack of S-1. The test results clearly demonstrate that the existing pH limits for A-11 in Condition #17734 has historically ensured compliance with all of the aforementioned federally enforceable emissions limits.

Based upon the source test results, the post-control device emissions of H2SO4, PM, and SO3 are each less than 100 tons per year.

$$(0.0011 \text{ gr/dscf}) \times (89900 \text{ dscfm}) \times (525600 \text{ min/yr}) / (7000 \text{ gr/lb}) / (2000 \text{ lbs/ton}) = 3.71 \text{ TPY H}_2\text{SO}_4$$

$$(0.0049 \text{ gr/dscf}) \times (89900 \text{ dscfm}) \times (525600 \text{ min/yr}) / (7000 \text{ gr/lb}) / (2000 \text{ lbs/ton}) = 16.53 \text{ TPY PM}$$

$$(0.0009 \text{ gr/dscf}) \times (89900 \text{ dscfm}) \times (525600 \text{ min/yr}) / (7000 \text{ gr/lb}) / (2000 \text{ lbs/ton}) = 0.82 \text{ TPY SO}_3$$

Therefore, pursuant to 40 CFR 64.3(b)(4)(iii), the minimum frequency of data collection is at least once per 24-hr period. Permit condition #17734, part 33 requires that the scrubber liquid be sampled and tested for pH level at least once per day.

S-1 Source Test Results, 2008-2011

	PM (gr/dscf)	SO3 (gr/dscf)	H2SO4 (gr/dscf)
9/12/08	0.0033	0.0003	0.0005
8/11/09	0.0017	0.0005	0.0011
9/2/10	0.0026	0.0007	0.0003
9/7/11	0.0049	0.0009	0.0002

Other Control Devices

CAM also does not apply to all other controlled sources at this facility. For S-1, pre-control emissions of SO₂ exceeds the BAAQMD major source threshold of 100 tons per year. However, S-1 uses a continuous emissions monitor for SO₂ and therefore CAM does not apply (per 40 CFR 64.2(b)(1)(vi)). For the other sources, CAM does not apply because pre-control emissions do not exceed any of the BAAQMD major source thresholds. The table below summarizes the pre-control emissions for these sources. The pre-control emissions calculations are based on maximum source throughput rates or permitted throughput limits, emission factors/rates, and total annual operation hours, which are from District permit evaluations and data forms for this facility. In the absence of permitted throughput limits, maximum source throughput rates were used for the pre-control emissions calculations.

Potential Pre-Control Device Emissions

A-#	Description	Required Efficiency	Source(s) Controlled	Pre-Control Emissions			
				SO ₂	PM	H ₂ SO ₄	SO ₃
A-16	Oleum Storage Tank Vent Scrubber	Ringelmann No. 1 for no more than 3 minutes in any hour	S-51 Oleum Storage Tank, T-19	(0.0364 atm)* (8.3 lb-mol/day)* (64 lb H ₂ SO ₄ /lb-mol)* (365 days/yr)/ (2000 lb/ton) = 3.53 TPY	H ₂ SO ₄ : (0.0364 atm)* (8.3 lb-mol/day)* (98 lb H ₂ SO ₄ /lb-mol)* (365 days/yr)/ (2000 lb/ton) = 5.4 TPY	(0.0364 atm)* (8.3 lb-mol/day)* (98 lb H ₂ SO ₄ /lb-mol)* (365 days/yr)/ (2000 lb/ton) = 5.4 TPY	(0.0364 atm)* (8.3 lb-mol/day)* (80 lb SO ₃ /lb-mol)* (365 days/yr)/ (2000 lb/ton) = 4.41 TPY
&		Ringelmann 0.5 or result in fallout to cause a public nuisance					
A-17	Truck Loading Vent Scrubber	Ground level concentrations of SO ₂ shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours 300 ppm (dry) SO ₂ 0.416 lb/hr SO ₂ in any hour nor 0.416 lb SO ₂ per 60 min avg. 0.5 lb/hr SO ₃ in any hour nor 0.5 lb SO ₃ per 60 min avg. 0.558 lb/hr sulfuric acid in any hour nor 0.558 lb sulfuric acid per 60 min avg.			SO ₃ : (0.0364 atm)* (8.3 lb-mol/day)* (80 lb SO ₃ /lb-mol)* (365 days/yr)/ (2000 lb/ton) = 4.41 TPY Combined: 5.4+4.41 = 9.81 TPY		

A-#	Description	Required Efficiency	Source(s) Controlled	Pre-Control Emissions			
				SO2	PM	H2SO4	SO3
		0.01 grams per cubic meter at fenceline or 2 ppm as H2SO4 over any 10 consecutive minutes Ringelmann No. 1 for < 3 min/hr Ringelmann 0.5 or result in fallout to cause a public nuisance Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours 300 ppm (dry) SO2 4.0 lb/hr SO2 nor 2 lbs SO2 per 30 min avg. 0.5 lb/hr SO3 nor 0.5 lbs SO3 per 60 min avg. <i>0.746 lb/hr sulfuric acid nor 0.746 lb sulfuric acid per 60 min avg.</i>	S-52 Oleum Truck Loading	(0.0364 atm)* (60 lb-mol/day)* (64 lb H2SO4/lb-mol)* (365 days/yr)/(2000 lb/ton) = 25.51 TPY	(0.0364 atm)* (60 lb-mol/day)* (98 lb H2SO4/lb-mol)* (365 days/yr)/(2000 lb/ton) = 39.06 TPY (0.0364 atm)* (60 lb-mol/day)* (80 lb SO3/lb-mol)* (365 days/yr)/(2000 lb/ton) = 31.89 TPY Combined: 39.06+31.89 = 70.95 TPY	(0.0364 atm)* (60 lb-mol/day)* (98 lb H2SO4/lb-mol)* (365 days/yr)/(2000 lb/ton) = 39.06 TPY	(0.0364 atm)* (60 lb-mol/day)* (80 lb SO3/lb-mol)* (365 days/yr)/(2000 lb/ton) = 31.89 TPY
A-57	SO2 Portable Caustic Scrubber	pH of scrubbing solution should be at least 8	S-57 Sulfuric Acid Cleaning Operation	(5,895.6 ft ³ SO2/10 ⁶ ft ³ SCF flue gas)(2,248.6 ft ³ flue gas/min)(60 min/hr)(1320 hr/yr)(lbmol SO2/379.4 ft ³ SO2)(64 lb SO2/lbmol SO2) = 177,112 lb SO2/yr = 88.56 TPY	No emissions	No emissions	No emissions

Applicability of NSPS

40 CFR 60, Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

On July 11, 2006, the Environmental Protection Agency (EPA) published a rule to reduce emissions of air pollutants from stationary compression ignition (CI) internal combustion engines (stationary diesel engines). These new standards, known as New Source Performance Standards (NSPS), will limit emissions of nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), and Non-methane hydrocarbons (NMHC) from stationary diesel internal combustion engines. Sulfur oxides (SO_x) will also be controlled through the use of low sulfur fuel. The emissions standards are generally modeled after EPA's standards for non-road and marine diesel engines.

Subpart III applies to all new/reconstructed (after July 11, 2005) compression ignition (CI) diesel fueled engines, and limits the emissions of criteria pollutants. This regulation used the non-road engine precedent of requiring manufacturer-certified (MC, similar to that required for car engines) engines for compliance. For most new CI engines, the requirements are for operators to purchase an engine with the correct certification, to maintain the engine as recommended by the manufacturer, and to document that this maintenance was completed. This rule also includes requirements for maintenance recordkeeping and provisions where the engine operator is directly responsible for compliance for large engines and has an option for MC engines (to get flexibility in maintenance requirements).

S-56 Standby Diesel Fire Pump Engine was manufactured in March 2007 and construction commenced in 2007. Therefore, S-56 is considered a new source under Subpart III and is subject to this subpart. Applicable requirements for Subpart III have been included in the proposed Title V permit.

40 CFR, Part 60, Subpart A, General Provision and 40 CFR, Part 60, Subpart H, Standards of Performance for Sulfuric Acid Plants

In 2007, Rhodia, Inc. entered into a Consent Decree (CD) with U.S. EPA (EPA), the U.S. Department of Justice (DoJ) and other "State Parties," including the BAAQMD. This CD requires the Facility to submit an application within 90 days of July 1, 2007 (i.e., the "Effective Date" for the emissions limits imposed by the CD) to modify the Facility's Title V permit to include requirements of the CD. Rhodia, Inc. submitted Application 16756, which included proposed changes to the Facility's current Title V permit to incorporate various requirements of the CD.

In summary, the emission limits and related requirements for the Facility mandated by the CD are as follows:

- Sulfuric Acid Mist Limit:
 - a. Meet acid mist limit of 0.15 lbs per ton of 100% sulfuric acid produced.

- SO₂ Limit:
 - a. Meet a Long-Term Limit of 2.2 lbs SO₂/ton
 - b. Meet a Short-Term Limit of 3.0 lbs SO₂/ton
 - c. Comply with NSPS (40 CFR 60) Subparts A and H

To meet the emissions monitoring and related compliance requirements of the CD, this permit revision application proposes new monitoring terms and conditions to be added to the existing Title V permit. More specifically, paragraph 13(a) of the CD requires Rhodia to install and operate a continuous emission monitoring system (CEMS) to measure sulfur dioxide (SO₂) concentrations at the inlet of the converter when sulfur-bearing compounds are being fed to the furnace, except during periods of breakdown, repair and calibration. As required by paragraph 13(b) of the CD, the design, performance and operational requirements for the CEMS have been specified in an EPA-approved Alternative Monitoring Plan (AMP).

Data from the CEMS at the converter inlet must be combined with data from the existing SO₂ CEMS at the stack outlet to calculate emissions from the Facility on a pounds SO₂ per ton of concentrated (100%) sulfuric acid produced on a 3-hour rolling average basis.

Changes to permit:

The following correction was made to Section IV: “The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable.”

The following clarification was made to Section IV: “The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors.”

Section IV has been modified to say that SIP standards are now found on EPA's website and are not included as part of the permit.

Regulation 6, Particulate Matter and Visible Emissions, was renumbered as Regulation 6, Rule 1, and renamed as Particulate Matter, General Requirements on December 5, 2007. The equivalent rule in the State Implementation Plan (SIP) is Regulation 6, Particulate Matter and Visible Emissions, which was approved in a Federal Register notice of September 4, 1998. The BAAQMD rule is technically not federally enforceable, although the requirements are identical. This change is also reflected in the Section IV and VII tables.

The “Source-specific Applicable Requirements” title has been added to the top of each table.

The dates of adoption or approval of the rules and their "federal enforceability" status in each of the tables have also been updated.

The following changes were made to Table IV-A, S-1 Sulfuric Acid Plant:

- Added BAAQMD Regulation 1-522.1 since it was previously omitted
- Added BAAQMD Regulation 1-522.2 since it was previously omitted
- Added BAAQMD Regulation 1-522.10 since it was previously omitted

- Added BAAQMD Regulation 1-523.1 since it was previously omitted
- Added BAAQMD Regulation 1-523.2 since it was previously omitted
- Added BAAQMD Regulation 1-523.3 since it was previously omitted
- Added BAAQMD Regulation 1-523.4 since it was previously omitted
- Added BAAQMD Regulation 1-523.5 since it was previously omitted
- Added SIP Regulation 6-301 since it was previously omitted
- Added SIP Regulation 6-305 since it was previously omitted
- Added SIP Regulation 6-310 since it was previously omitted
- Added SIP Regulation 6-311 since it was previously omitted
- Added SIP Regulation 6-320 since it was previously omitted
- Added SIP Regulation 6-401 since it was previously omitted
- Added SIP Regulation 1-522.7 since BAAQMD Regulation 1-522.7 is no longer federally enforceable
- Added SIP Regulation 1-523.3 since it was previously omitted
- Added BAAQMD Regulation 9-1-604 since it was previously omitted
- Added 40 CFR 60 Subpart A since it was previously omitted
- Added 40 CFR 60 Subpart H since it was previously omitted
- Deleted 40 CFR 62 Subpart F since this facility is not listed as an affected facility under Section 62.1102 of the regulation
- Added 40 CFR 64 because Compliance Assurance Monitoring (CAM) applies for S-1
- Added Consent Decree requirements

The following changes were made to Table IV-B, S-2 Auxiliary Boiler:

- Added SIP Regulation 6-301 since it was previously omitted
- Added SIP Regulation 6-305 since it was previously omitted
- Added SIP Regulation 6-310 since it was previously omitted
- Added SIP Regulation 6-310.3 since it was previously omitted
- Added SIP Regulation 6-401 since it was previously omitted
- Added BAAQMD Regulation 9-7-112.2 and added effective date of 1/1/2012 because the facility will voluntarily limit natural gas consumption to less than 10 percent of the annual maximum input heat capacity on 1/1/2012 in order to qualify for this limited exemption for low fuel usage
- Description of Regulation 9-7-301 changed from “Emission Limits- Gaseous Fuel” to “Interim Emission Limits” to reflect current regulation
- Added expiration date of 1/1/2012 for the NOx performance standard in BAAQMD Regulation 9-7-301.1 to reflect current regulation
- Changed the federal enforceability of BAAQMD Regulation 9-7-301.1 from “Y” to “N” since the current version of the regulation has not been SIP-approved
- “Performance Standard, CO” section changed from BAAQMD Regulation 9-7-301.2 to 9-7-301.4 to reflect current regulation
- Changed the federal enforceability of BAAQMD Regulation 9-7-301.4 from “Y” to “N” since the current version of the regulation has not been SIP-approved
- Added BAAQMD Regulation 9-7-311 to reflect current regulation
- Deleted BAAQMD Regulation 9-7-502 to reflect current regulation
- Added BAAQMD Regulation 9-7-503.1 to reflect current regulation

- Deleted BAAQMD Regulation 9-7-503.2 since it is not applicable to S-2
- Description of Regulation 9-7-503.3 changed from “§306.3 Records” to “Hours of equipment testing using non-gaseous fuel and total operating hours per month using non-gaseous fuel” to reflect current regulation and added expiration date of 1/1/2012 to reflect current regulation
- Deleted Regulation 9-7-503.4 because S-2 will qualify for the limited exemption BAAQMD Regulation 9-7-112.2 on 1/1/2012 and therefore BAAQMD Regulation 9-7-403 does not apply (see above discussion on BAAQMD Regulation 9-7-112.2)
- Added BAAQMD Regulation 9-7-504.1 because BAAQMD Regulation 9-7-112.2 will apply to S-2 on 1/1/2012 (see above discussion on BAAQMD Regulation 9-7-112.2)
- Added BAAQMD Regulation 9-7-504.2 because BAAQMD Regulation 9-7-112.2 will apply to S-2 on 1/1/2012 (see above discussion on BAAQMD Regulation 9-7-112.2)
- Added BAAQMD Regulation 9-7-506 to reflect current regulation
- Changed the federal enforceability of BAAQMD Regulation 9-7-602 from “Y” to “N” since the current version of the regulation has not been SIP-approved
- Changed the federal enforceability of BAAQMD Regulation 9-7-603 from “Y” to “N” since the current version of the regulation has not been SIP-approved
- Added BAAQMD Regulation 9-7-604 since it was previously omitted
- Added SIP Regulation 9-7 since it was previously omitted

The following changes were made to Table IV-C, S-3 Natural Gas Preheater Furnace:

- Added SIP Regulation 6-301 since it was previously omitted
- Added SIP Regulation 6-305 since it was previously omitted
- Added SIP Regulation 6-310 since it was previously omitted
- Added SIP Regulation 6-401 since it was previously omitted

The following changes were made to Table IV-E, S-19 Alky Tank, T-1:

- Corrected the federal enforceability of BAAQMD Regulation 1-523.3 from “Y” to “N”
- Added BAAQMD Regulation 1-523.5 since it was previously omitted
- Added SIP Regulation 1-523.3 since it was previously omitted

The following changes were made to Table IV-F, S-20 Alky Tank, T-3:

- Corrected the federal enforceability of BAAQMD Regulation 1-523.3 from “Y” to “N”
- Added BAAQMD Regulation 1-523.5 since it was previously omitted
- Added SIP Regulation 1-523.3 since it was previously omitted

The following changes were made to Table IV-G, S-30 Gasoline Dispensing Island:

- Changed the federal enforceability of BAAQMD Regulation 8-7-301 from “N” to “Y” since the current version of the regulation has been SIP-approved
- Removed 6/1/94 version of SIP Regulation 8, Rule 7 because BAAQMD Regulation 8-7 is now federally enforceable

- Removed footnote pertaining to the federal enforceability of the 6/1/94 version of SIP Regulation 8-7 because BAAQMD Regulation 8-7 is now federally enforceable

The following changes were made to Table IV-H, S-38 Sulfur Dioxide Transload System:

- Deleted Table IV-H because S-38 is permanently out of service

The following changes were made to Table IV-I, S-48 Conveying and Sizing Subsystem:

- Deleted Table IV-I because S-48 is permanently out of service

The following changes were made to Table IV-J, S-49 PEP Fluidized Bed Dryer:

- Deleted Table IV-J because S-49 is permanently out of service

The following tables have been renumbered:

- Table IV-K renumbered to Table IV-H
- Table IV-L renumbered to Table IV-I
- Table IV-M renumbered to Table IV-J
- Table IV-N renumbered to Table IV-K

The following changes were made to Table IV-H (renumbered from Table IV-K), S-51 Oleum Storage Tank, T-19:

- Added SIP Regulation 6-301 since it was previously omitted

The following changes were made to Table IV-I (renumbered from Table IV-L), S-52 Oleum Truck Loading:

- Added SIP Regulation 6-301 since it was previously omitted

The following changes were made to Table IV-J (renumbered from Table IV-M), S-54 Oleum Truck Loading:

- Changed the federal enforceability of BAAQMD Regulation 8-5 from “Y” to “N” since the current version of the regulation has not been SIP-approved (note that Sections 112.4 and 501.1 are federally enforceable since they are identical to the respective sections in the current SIP-approved regulation)
- Description of Regulation 8-5-112 changed from “Limited Exemption, Tanks in Operation” to “Limited Exemption, Preventative Maintenance and Inspection of Tanks in Operation” to reflect current regulation
- Added BAAQMD Regulation 8-5-112.2 to reflect current regulation
- Previous BAAQMD Regulation 8-5-112.2 changed to 8-5-112.3 to reflect current regulation
- Previous BAAQMD Regulation 8-5-112.3 changed to 8-5-112.4 to reflect current regulation
- Added BAAQMD Regulation 8-5-112.5 to reflect current regulation
- Added BAAQMD Regulation 8-5-112.6 to reflect current regulation
- Description of Regulation 8-5-301 changed from “Storage Tanks Smaller than 150m³” to “Storage Tank Control Requirements” to reflect current regulation
- Deleted BAAQMD Regulation 8-5-301.3 to reflect current regulation
- Deleted BAAQMD Regulation 8-5-311 to reflect current regulation

- Deleted BAAQMD Regulation 8-5-311.3 to reflect current regulation
- Added BAAQMD Regulation 8-5-307.2 to reflect current regulation
- Added BAAQMD Regulation 8-5-328.1 to reflect current regulation
- Added BAAQMD Regulation 8-5-328.2 to reflect current regulation
- Added BAAQMD Regulation 8-5-328.3 to reflect current regulation
- Added BAAQMD Regulation 8-5-331.1 to reflect current regulation
- Added BAAQMD Regulation 8-5-331.3 to reflect current regulation
- Added BAAQMD Regulation 8-5-501.1 to reflect current regulation
- Added BAAQMD Regulation 8-5-501.3 to reflect current regulation
- Added BAAQMD Regulation 8-5-502 to reflect current regulation
- Deleted BAAQMD Regulation 8-5-603.1 to reflect current regulation
- Added SIP Regulation 8-5

The following tables have been added:

- Table IV-L for S-56 Standby Diesel Fire Pump Engine
- Table IV-M for S-57 Sulfuric Acid Cleaning Operation

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and 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.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit only contains elements 2-6-409.10.1 and 2-6-409.10.2.

The BAAQMD Enforcement and Compliance Division has conducted a review of compliance over the past year and has no records of compliance problems at this facility. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and as appropriate, revised the conditions for clarity and

enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

Where necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all ‘strikeout’ language will be deleted; all ‘underline’ language will be retained.

The existing permit conditions are generally derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). It is also possible for permit conditions to be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff.

The regulatory basis has been referenced following each condition. The regulatory basis may be a rule or regulation. The District is also using the following codes for regulatory basis:

- BACT: This code is used for a condition imposed by the APCO to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This code is used for a condition imposed by the APCO that limits a source’s operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This code is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This code is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit pursuant to Regulation 2, Rule 2.
- TRMP: This code is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District’s Toxic Risk Management Policy.

Changes to permit:

The permit conditions have been re-written so that they are in an active, not passive, voice and specify the owner/operator as the responsible party to improve enforceability.

Condition #2756 has been deleted because S-48 and S-49 are permanently out of service.

In Condition #17734, reference to S-38 Sulfur Dioxide Transload System has been deleted because S-38 is permanently out of service.

Condition #17734, parts 8 and 13 have been deleted because S-38 is permanently out of service.

In Condition #17734, part 15, reference to S-38 Sulfur Dioxide Transload System has been deleted because S-38 is permanently out of service.

In Condition #17734, part 22, references to BAAQMD Regulation 6 have been renumbered Regulation 6-1 to reflect current regulation.

Condition #22850, that applies to S-56 Standby Diesel Fire Pump Engine, has been added according to the ATCM per application #16079.

Condition #24537, that applies to S-57 Sulfuric Acid Cleaning Operation, has been added per application #21157.

Consent Decree Condition has been added per the Consent Decree.

40 CFR Part 64 Compliance Assurance Monitoring conditions have been added to condition #17734, parts 31 through 36.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source.

Under Title V, the District has the authority to impose additional monitoring where: (1) the existing applicable requirement does not require monitoring AND (2) monitoring is necessary to assure compliance with such applicable requirement.

Changes to permit:

The standard language at the beginning of the section has been updated.

A note has been added at the beginning of the section to clarify that this section is a summary of the limits and monitoring, and that in the case of a conflict between Sections I-VI and Section VII, the preceding sections take precedence.

The following changes have been made to the tables where applicable:

- The “Applicable Limits and Compliance Monitoring Requirements” title has been added to the top of each table
- “Regulation” has been deleted from citations of a section of a regulation. For example, “BAAQMD Regulation 9-1-301” is now “BAAQMD 9-1-301.”
- BAAQMD Regulation 6 standards have been updated to Regulation 6-1 to reflect current BAAQMD Rules, and the federal enforceability for BAAQMD Regulation 6-1 has been changed from “Y” to “N” since it has not been SIP-approved.

The following tables have been renumbered:

- Table VII-K renumbered to Table VII-H
- Table VII-L renumbered to Table VII-I
- Table VII-M renumbered to Table VII-J
- Table VII-N renumbered to Table VII-K

The following changes were made to Table VII-A, S-1 Sulfuric Acid Plant:

- Deleted “None” from Monitoring Type column for the BAAQMD Regulation 9-1-301 SO₂ limit citation. No monitoring is required for this SO₂ limit, but compliance with the SO₂ emission limit in BAAQMD Regulation 9-1-309 ensures compliance with this limit as well.
- Added SO₂ emission limit from Consent Decree
- Added H₂SO₄ emission limit from 40 CFR 60.83(a)(1)
- Added opacity limit from 40 CFR 60.83(a)(2)
- Added BAAQMD Condition #14980, part 1 to Monitoring Requirement Citation column for SO₃ and H₂SO₄ because it was previously omitted
- Corrected the BAAQMD Condition #17734, part 9 annual throughput limit for sulfuric acid

The following changes were made to Table VII-B, S-2 Auxiliary Boiler:

- The federal enforceability for BAAQMD Regulation 9-7 has been changed from “Y” to “N” because the current version of the regulation has not been SIP-approved
- CO emissions limit changed from BAAQMD Regulation 9-7-301.2 to 9-7-301.4 to reflect current regulation
- Added SIP Regulation 9-7-301.1 to table to include emission limits for NO_x because it was previously omitted
- Added SIP Regulation 9-7-301.2 to table to include emission limits for CO because it was previously omitted

The following changes were made to Table VII-H, S-38 Sulfur Dioxide Transload System:

- Deleted Table VII-H because S-38 is permanently out of service

The following changes were made to Table VII-I, S-48 Conveying and Sizing Subsystem:

- Deleted Table VII-I because S-48 is permanently out of service

The following changes were made to Table VII-J, S-49 PEP Fluidized Bed Dryer:

- Deleted Table VII-J because S-49 is permanently out of service

The following changes were made to Table VII-J (renumbered from Table VII-M), S-54 Oleum Truck Loading:

- Deleted the VOC limit from BAAQMD Regulation 8-5-311.3 to reflect current regulation

The following tables have been added:

- Table VII-L for S-56 Standby Diesel Fire Pump Engine
- Table VII-M for S-57 Sulfuric Acid Cleaning Operation

The tables below show the limits, prior to incorporation in the Title V permit, for which there are no applicable monitoring requirements. Additional monitoring, if any, imposed pursuant to Title V is shown in the last column. The basis for the monitoring decision is present in the discussion

following each table. Applicable limits not shown in the following tables have adequate monitoring, and so no additional monitoring is being proposed in the Title V permit.

NOx and CO Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
AUXILIARY BOILER: S2	BAAQMD 9-7-301.1	NOx emissions shall not exceed 30 ppmv @ 3% O2	Source test every five years
	BAAQMD 9-7-301.2	CO emissions shall not exceed 400 ppmv @ 3% O2	Source test every five years
PEP FLUIDIZED BED DRYER SUBSYSTEM: S49	BAAQMD Condition #2756, Part 3b	1.1 lb/hour as NO2	Source test every five years

NOx and CO Discussion:

S-2 Auxiliary Boiler, 21 MMBTU/hour

A new part (#30) has been added to Condition #17734 requiring source testing every five years to demonstrate compliance with the NOx and CO emissions limits of BAAQMD Regulations 9-7-301.1 and 9-7-301.2.

For S-2, boiler, the potential to emit NOx and CO is based on a Regulation 9, Rule 7 compliance emission source test conducted on S-2 on May 29, 1996. S-2 is equipped with low-NO burners and flue gas recirculation to comply with Regulation 9, Rule 7. On May 29, 1996, S-2's NOx emissions were measured to be 29.2 ppmv @ 3% O2 and S-2's CO emissions were measured to be 33.8 ppmv @ 3% O2. Regulation 9, Rule 7 limits the boiler to below 30 ppmv NOx and 400 ppmv CO. Based on the measured emission concentrations and the measured flowrates, the source test summary shows average mass emissions of 0.67 lb/hour NOx and 0.47 lb/hour CO. If S-2 were used 24 hours/day, the potential to emit would be: 16.1 lb/day NOx and 11.2 lb/day CO.

S-2, boiler, is only used to generate steam when the acid plant is down for maintenance. Since this boiler's NOx and CO emissions are small and the boiler is only used during acid plant maintenance, this frequency of source testing is appropriate to assure compliance.

SO₂ Sources

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
SULFURIC ACID PLANT: S1	BAAQMD Regulation 9-1-301	SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards	Not recommended
AUXILIARY BOILER (NATURAL GAS): S2	BAAQMD Regulation 9-1-301	SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards	Not recommended
	BAAQMD Regulation 9-1-302	300 ppm (dry)	Not recommended
NATURAL GAS PREHEATER FURNACE (NATURAL GAS): S3	BAAQMD Regulation 9-1-301	SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards	Not recommended
	BAAQMD Regulation 9-1-302	300 ppm (dry)	Not recommended
PEP FLUIDIZED BED DRYER SUBSYSTEM (NATURAL GAS): S49	BAAQMD Regulation 9-1-301	SO2 emissions shall not result in ground level SO2 concentrations exceeding state or federal ambient air quality standards	Not recommended
	BAAQMD Regulation 9-1-302	300 ppm (dry)	Not recommended
OLEUM STORAGE TANK, T-19: S51	BAAQMD Condition #13337, part 7	SO2 emission limit of 0.416 lb/hr	Source Test every five years
OLEUM TRUCK LOADING FACILITY: S52	BAAQMD Condition #13337, part 8	SO2 emission limit of 4.0 lb/hr	Source Test every five years
STANDBY DIESEL FIRE PUMP ENGINE: S-56	BAAQMD Regulation 9-1-301	Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
STANDBY DIESEL FIRE PUMP ENGINE: S-56	BAAQMD Regulation 9-1-304	Sulfur content of liquid fuel < 0.5% by weight	Fuel Certification
SULFURIC ACID CLEANING OPERATION: S-57	BAAQMD Regulation 9-1-302	300 ppm (dry)	None

SO2 Discussion:

BAAQMD Regulation 9-1-301 and Regulation 9-1-302

Area monitoring to demonstrate compliance with the ground level SO₂ concentration requirements of Regulation 9-1-301 is at the discretion of the APCO. Currently, there are no ground level monitors at this facility.

S-1, Sulfuric Acid Plant, is the main source of SO₂ emissions at this facility. There is a federally enforceable permit condition requiring that an SO₂ continuous emission monitor (CEM) monitor the stack of S-1. The APCO has determined that compliance with the 300 ppm SO₂ stack concentration limit in Regulation 9-1-309 assures compliance with the 9-1-301 limit. Ground level monitoring is not necessary.

In order to demonstrate proper abatement device function, federally enforceable permit conditions have been proposed, requiring the facility to periodically assess the performance of the abatement devices through monitoring abatement device operating parameters.

Other SO₂ emission sources at this plant are S-2 auxiliary boiler and S-3 natural gas preheater furnace. Each generates small concentrations of SO₂ emissions due to small quantities of sulfur compounds in the natural gas burned. Since there is a federally enforceable permit condition requiring the use of natural gas at these sources, monitoring for Regulation 9-1-301 limits is not necessary.

All facility combustion sources are subject to the SO₂ emission limitations in District Regulation 9, Rule 1 (ground-level concentration and emission point concentration). In EPA's June 24, 1999 agreement with the CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 9, Rule 1, since violations of the regulation are unlikely. Therefore, no monitoring is proposed for this requirement.

Continuous SO₂ monitoring of S-51 and S-52 is not needed because the emissions have been demonstrated by a 8/20/99 District source test to be low (0.035 lb/hour) which is far below the permit conditioned limit of 0.416 lb/hour. SO₂ emissions source testing every five years of S-51 and S-52 has been proposed to ensure continued compliance with the limits specified in the permit conditions. Permit Condition #13337, Part 16 has been added to this facility permit specifying this source test every five-year requirement.

Because S-56 will be fired exclusively on "California diesel Fuel" that has a maximum sulfur content of 500 ppmw (0.05% by weight) compliance with BAAQMD Regulation 6-1-304 is expected. Per the CAPCOA/ARB/EPA agreement of 6/24/99 entitled "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", compliance with liquid fuel sulfur limits in BAAQMD Regulation 9-1-304 will be assured by certification of the sulfur content by the fuel supplier for each fuel delivery. Therefore, no additional monitoring is necessary for this standard for S-56.

S-56 is a standby diesel engine that emits small quantities of SO₂ and it will be operated on an intermittent basis and it is not expected to cause or contribute to ground lever SO₂ concentrations that would lead to an exceedance of the standards of regulation 9-1-301.

PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
SULFURIC ACID PLANT: S-1	BAAQMD Regulation 6-1-301	Ringelmann 1.0	pH monitoring (at A-11)
	BAAQMD Regulation 6-1-310	0.15 gr/dscf	pH monitoring (at A-11)
AUXILIARY BOILER: S-2	BAAQMD Regulation 6-1-301	Ringelmann 1.0	Not recommended
	BAAQMD Regulation 6-1-310.3	0.15 gr/dscf at 6% O2	Not recommended
NATURAL GAS PREHEATER FURNACE: S-3	BAAQMD Regulation 6-1-301	Ringelmann 1.0	Not recommended
	BAAQMD Regulation 6-1-310	0.15 gr/dscf	Not recommended
	BAAQMD Regulation 6-1-311	Hourly Mass Emission Limit based on material throughput	Not recommended
OLEUM STORAGE TANK, T-19: S-51	BAAQMD Condition #13337, part 3	Ringelmann 0.5	Annual visible emission check
OLEUM TRUCK LOADING FACILITY: S-52	BAAQMD Condition #13337, part 3	Ringelmann 0.5	Annual visible emission check
STANDBY DIESEL FIRE PUMP ENGINE: S-56	BAAQMD Regulation 6-1-303.1	Ringelmann 2.0	None
	BAAQMD Regulation 6-1-310	0.15 gr/dscf	None

PM Discussion:

BAAQMD Regulation 6 “Particulate Matter And Visible Emissions”

Visible Emissions

BAAQMD Regulation 6-1-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Some of the sources are limited to the more restrictive limit of Ringelmann 0.5 by permit condition. Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. S-2 and S-3 burn exclusively natural gas, therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB entitled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP",

the EPA does not require the monitoring of PM for the combustion emissions from these sources.

Since S-1 is abated by scrubbers, Ringelmann 0.5 should not be exceeded if these abatement devices are working properly. In order to demonstrate proper abatement device function, additional permit conditions require the owner/operator of the facility to periodically assess the performance of the abatement devices by inspection or by monitoring abatement device operating parameters.

Since S-51 and S-52 are abated by mist eliminators, annual visible emission checks are adequate. No visible PM emissions are expected from these sources because these sources are abated by mist eliminators that are required to be properly operating and in good working condition.

BAAQMD Regulation 6-1-303.1 limits visible emissions to no darker than 0.5 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Visible emissions are normally not associated with combustion of gaseous fuels, such as diesel, and visible emissions violations are not expected for properly tuned engines. S-56 burns exclusively diesel, therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB entitled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", the EPA does not require the monitoring of PM for the combustion emissions from this source.

Particulate Weight Limitation

BAAQMD Regulation 6-1-310 limits filterable particulate emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from "heat transfer operations" to 0.15 gr/dscf @ 6% O₂.

Per the emission calculations shown below, the PM emissions of S-2 and S-3 are far below the emission limit of 0.15 gr/dscf. Each source was found to be in compliance with the Regulation 6-1-310 grain-loading limits, which are expected with clean-burning natural gas. Therefore, no PM monitoring for these sources is required.

For S-1, initial source tests, then periodic assessments of proper abatement device function (in accordance with the proposed permit conditions) has been proposed to demonstrate compliance with Regulation 6-1-310.

Per the emission calculations shown below, the PM emissions of S-56 are far below the emission limit of 0.15 gr/dscf. This source was found to be in compliance with the Regulation 6-1-310 grain-loading limits. Therefore, no PM monitoring for these sources is required.

Allowable Rate of Emissions Based on Process Weight Rate

BAAQMD Regulation 6-1-311 limits particulate emissions from general operations based on the process weight throughput. The maximum permitted throughput for each source was assumed, along with accepted emission factors and abatement factors.

Per the emission calculations shown below, the PM emissions of S-2 and S-3 are all far below the allowable PM emission limits. Each source was found to be in compliance with the Regulation 6-1-311 PM weight limit, which is expected with clean-burning natural gas. Therefore, no PM monitoring for these sources is required.

Emission Calculations:

Regulation 6-1-310 allows 0.15 grains PM/dscf

S-2 Auxiliary Boiler

The potential to emit is estimated using emission factors from AP-42, Table 1.4.2, dated 7/98.

$$(21 \text{ MMBtu/hr}) \times (1.9 \text{ lb PM/MMscf natural gas}) \times (7000 \text{ grains/lb}) \times (1 \text{ cf natural gas}/1050 \text{ Btu}) = 266 \text{ grains/hour} = 0.038 \text{ lb/hour}$$

The volume of combustion gases is calculated using the F factor method in EPA's Method 19, "Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates" in Appendix A of 40 CFR Part 60. The factor is 8600 dscf/MMBtu of natural gas burned.

$$(21 \text{ MMBtu/hr}) \times (8600 \text{ dscf exhaust gases/MMBtu}) = 180,600 \text{ dscf exhaust gases/hr}$$

The grain loading is calculated by dividing the grains per hour by the volume of exhaust gases per hour:

$$\text{Grain Loading, grains/dscf} = (266 \text{ grains/hour}) / (180,600 \text{ dscf exhaust gases/hr}) = 0.0015 \text{ grains PM/dscf}$$

S-3 Natural Gas Preheater Furnace, Emission factor from AP-42, Table 1.4.2, dated 7/98.

The potential to emit is estimated using emission factors from AP-42, Table 1.4.2, dated 7/98.

$$(97.5 \text{ MMBtu/hr}) \times (1.9 \text{ lb PM/MMcf natural gas}) \times (7000 \text{ grains/lb}) \times (1 \text{ cf natural gas}/1050 \text{ Btu}) = 1,235 \text{ grains/hour} = 0.176 \text{ lb/hour}$$

The volume of combustion gases is calculated using the F factor method as shown above:

$$(97.5 \text{ MMBtu gas/hr}) \times (8600 \text{ dscf exhaust gases/MMBtu gas}) = 838,500 \text{ dscf exhaust gases/hr}$$

The grain loading is calculated by dividing the grains per hour by the volume of exhaust gases per hour:

$$\begin{aligned}\text{Grain Loading, grains/dscf} &= (1,235 \text{ grains/hour}) / (838,500 \text{ dscf exhaust gases/hr}) \\ &= 0.0015 \text{ grains/dscf}\end{aligned}$$

S-56 Standby Diesel Fire Pump Engine

The potential to emit is estimated using emission factors from the engine manufacturer's spec sheet:

$$\begin{aligned}(0.13 \text{ g/hp/hr}) \times (7000 \text{ grains/lb}) \times (\text{lb}/454 \text{ g}) \times (160 \text{ hp}) \\ = 320.7 \text{ grains/hour}\end{aligned}$$

The grain loading is calculated by dividing the grains per hour by the volume of exhaust gases per hour (from engine manufacturer's spec sheet):

$$\begin{aligned}\text{Grain Loading, grains/dscf} &= (320.7 \text{ grains/hour}) / (57,180 \text{ dscf exhaust gases/hr}) \\ &= 0.006 \text{ grains/dscf}\end{aligned}$$

All PM emissions are assumed to be PM10.

Regulation 6-1-311 General Operations

As shown above, potential to emit for S-3 is below the minimum emission rate limitation of 1.8 lb/hour. Therefore, PM emissions are not calculated to determine compliance with Regulation 6-1-311.

For Source 1:

Using the facility's material balance, the PM emission factor for Source 1 is 0.00572 lb PM/ton H₂SO₄ produced.

The capacity of Source 1 is 76.4 tons per hour

From Rule 6-1-311, the particulate emissions may not exceed 40 lb/hour PM.

The potential to emit from Source 1 is calculated as:

$$(76.4 \text{ tons/hour}) \times (0.00572 \text{ lb PM/ton}) = 0.437 \text{ lb PM/hour}$$

The emissions are far below the emission rate allowed by this regulation.

POC Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
ALKY TANK, T-1: S-19	BAAQMD Regulation 8-5-117	0.5 psia true vapor pressure	Not recommended
ALKY TANK, T-3: S-20	BAAQMD Regulation 8-5-117	0.5 psia true vapor pressure	Not recommended
GASOLINE DISPENSING ISLAND (G5980): S-30	BAAQMD Regulation 8-7-301.2	95% recovery of gasoline vapors	Not recommended
SULFURIC ACID CLEANING OPERATION: S-57	BAAQMD Regulation 8-5-331.1	Tank Cleaning Agent limit Initial boiling point > 302 degrees F, true vapor pressure < 0.5 psia, or VOC content < 50 g/l	Record keeping

POC Discussion:

The true vapor pressure of the material stored in S-19 and S-20, alky tanks, is expected to be less than 0.5 psia because the spent acid stored in these tanks is 10% organics or less and has a very low vapor pressure. Determination of the vapor pressure is not feasible due to the sulfuric acid content of the liquid (85% or more). Moreover, any emissions from these sources are controlled by S-1, Sulfuric Acid plant, or A-2, Flare, when S-1 is not operating. Since the emissions are minor and controlled, no additional monitoring of the vapor pressure is required for these sources.

Source 30, Gasoline Dispensing Facility:

The standard District POC emission factor for aboveground tanks is 1.52 lb/1000 gallon pumped. Based on this emission factor, the maximum estimated POC emissions from this source are:

$$(400,000 \text{ gallon/year}) \times (1.52 \text{ lb/1000 gallon}) = 608 \text{ lb POC/year} = 0.3 \text{ ton POC/yr}$$

The POC emissions are low, therefore, additional monitoring of this source is not recommended. Regulation 8, Rule 7, Gasoline Dispensing Facilities does require records of throughput. The new permit condition for this source will require 5 years of records retention.

Source 57, Sulfuric Acid Cleaning Operation:

Once the tank is degassed, Regulation 8, Rule 5 does not require any additional vapor control for the displaced hydrocarbon vapors as long as the cleaning agent has low VOC. Because fresh sulfuric acid is the cleaning agent used at S-57, its VOC content is zero and it meets the requirement for cleaning agents in BAAQMD Regulation 8-5-331.1. Given that VOC's generated during tank cleaning are not addressed further by Regulation 8, Rule 5, it is unnecessary to impose additional monitoring for VOC at A-57's outlet, once the tank is degassed in compliance with the above rule. Therefore, VOC emissions generated by the cleaning

operation at S-57 are expected to be negligible. The new permit condition for this source will require record keeping to demonstrate compliance with BAAQMD Regulation 8-5-331.1, and will require 5 years of records retention.

SO3 Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
SULFURIC ACID PLANT: S-1	BAAQMD Regulation 6-1-320	0.04 grains/dscf	Annual Source Test
OLEUM STORAGE TANK, T-19: S-51	BAAQMD Condition #13337, part 7	SO3 emission limit of 0.5 lb/hr	Source Test Every 5 Years
OLEUM TRUCK LOADING FACILITY: S-52	BAAQMD Condition #13337, part 8	SO3 emission limit of 0.5 lb/hr	Source Test Every 5 Years

H2SO4 Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
SULFURIC ACID PLANT: S-1	BAAQMD Regulation 6-1-320	0.04 grains/dscf	Annual Source Test
	BAAQMD Regulation 12-6-301	0.30 lb/ton sulfuric acid produced	Annual Source Test
	40 CFR 60.31d	0.25 grams sulfuric acid mist per kilogram of sulfuric acid produced, the production being expressed as 100% sulfuric acid	Annual Source Test
OLEUM STORAGE TANK, T-19: S-51	BAAQMD Condition #13337, part 7	H2SO4 emission limit of 0.558 lb/hr	Source Test Every 5 Years
OLEUM TRUCK LOADING FACILITY: S-52	BAAQMD Condition #13337, part 8	H2SO4 emission limit of 0.746 lb/hr	Source Test Every 5 Years

Discussion of Other Pollutants:

BAAQMD Regulation 6-1-320, SO3 and H2SO4

District Regulation 6-1-320 limits emissions from sulfuric acid manufacturing plants to 0.04 grains/dscf of SO3 or H2SO4, or both, expressed as 100% H2SO4.

An 8/19/99 District source test of S-1 abated by A-11 measured H₂SO₄ emissions of 0.001 grains/dscf. This is below the limit of 0.04 grains/dscf contained in this rule. Although the source is expected to be in compliance with the H₂SO₄ and SO₃ requirement, an annual source test is proposed for this source due to its size.

BAAQMD Regulation 12-6-301, Acid Mist from Sulfuric Acid Plants

An 8/19/99 District source test of S-1 abated by A-11 measured emissions of 0.020 lb/ton sulfuric acid (H₂SO₄) produced. This is far below the limit of 0.300 lb/ton sulfuric acid produced contained in this rule. Although the source is expected to be in compliance with the H₂SO₄ requirement, an annual source test is proposed for this requirement due to the source's size and because the test can be performed at the same time as the test for BAAQMD Regulation 6-1-320.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will appear in Section VI of the permit.

Changes to permit:

BAAQMD Regulation 6 standards have been updated to Regulation 6-1 to reflect current BAAQMD Rules.

Test methods from Consent Decree were added.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards which the APCO has confirmed are not applicable to a source or group of sources, (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility has the first and second types of permit shield.

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the District has determined that compliance with the conditions of this permit will assure compliance with the “subsumed” regulatory requirements listed in the permit. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the “subsumed” regulatory and/or statutory provisions cited.

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] do not apply to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited, as long as the reasons listed below remain valid for the source or group of sources covered by this shield.

This permit has no streamlining.

Following is the detail of the permit shields that were requested by the applicant in their original Title V Permit application in 1995.

The following permit shields are allowed:

**Table VII-A
S-1 Sulfuric Acid Plant**

Citation	Title or Description (Reason not applicable)
BAAQMD 9-1-302	General Emission Limitation (Source is subject to Section 9-1-309)
BAAQMD 6-1-302	Opacity Limitation (SIP regulations do not require opacity monitoring for this source)

**Table VII-B
S-2 Auxiliary Boiler**

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart Dc	Standards of Performance for Boilers (Source constructed prior to 8/17/84 and has not been modified)

**Table VII-C
S-3 Natural Gas Preheater Furnace**

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 9, Rule 7	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (9/15/93) (This rule does not apply to this unit because it is not a boiler, steam generator, or process heater. The unit does not transfer heat to water or process streams. It is used only after a prolonged plant shutdown to heat the catalytic converter. After initial start-up, the temperature in the converter is maintained by recirculating process heat within a closed system)

**Table VII-D
S-12 Sulfuric Acid Tank, T-9
S-13 Sulfuric Acid Tank, T-4
S-14 Sulfuric Acid Tank, T-5
S-15 Sulfuric Acid Tank, T-6**

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 8, Rule 5	BAAQMD Regulation 8, Rule 5, Section 117 (The provisions of this rule do not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia).
SIP Regulation 8, Rule 18	SIP Regulation 8, Rule 18, Section 101 (The provisions of this rule do not apply to these sources because they do not contain organic liquids.)

**Table VII-D
S-19 Sulfuric Acid Tank, T-1
S-20 Sulfuric Acid Tank, T-3**

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 8, Rule 5	BAAQMD Regulation 8, Rule 5, Section 117 (The provisions of this rule do not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia).
SIP Regulation 8, Rule 18	SIP Regulation 8, Rule 18, Section 111 (The provisions of this rule do not apply to facilities that have less than 100 valves or less than 10 pumps and compressors. Such facilities are subject to Regulation 8, Rule 22 instead.)

Table VII-E
S-16 Sulfur Storage Tank, T-2
S-17 Sulfur Storage Tank, T-14
S-18 Sulfur Storage Tank, T-12
S-50 Sulfur Storage Tank, T-16

Citation	Title or Description (Reason not applicable)
BAAQMD Regulation 9, Rule 2, Section 301	BAAQMD Regulation 9, Rule 2, Section 110 (This rule does not apply on the facility owner's property. It only applies beyond the property fenceline.)

Table VII-F
S-36 Ammonium Sulfate/Bisulfite Tank, T-453A
S-37 Ammonium Sulfate/Bisulfite Tank, T-453B
S-57 Ammonium Sulfate/Bisulfite Tank, T-453C

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart PP	These sources are not the type of source or process subject to this rule.

Table VII-G
S-40 Cinder Water Collection Tank, T-500
S-41 Neutralizers, T-501, T-502
S-43 Sulfide Solution and Sulfide
S-44 Aeration & Check Tank, T-506
S-45 Sludge Tank, T-507 & Sludge Presses, F-521 A&B
S-47 PEP Iron Separation Subsystem

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart QQQ	These sources in the wastewater treatment system are not subject to this rule, because the facility does not meet the definition of a petroleum refinery.

Table VII-H
S-53 No. 6 Fuel Oil Storage Tank

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart K	No. 6 fuel oil is not defined as a petroleum liquid. Therefore, none of these subparts apply to this source. This tank is not subject to Subpart K because of age (built after May 19, 1978 and not modified)

**Table VII-H
S-53 No. 6 Fuel Oil Storage Tank**

40 CFR 60, Subpart Ka	This 44,000 gallon tank is not subject to Subpart Ka because of size (less than 420,000 gallons) and age (built after May 18, 1978 and not modified).
40 CFR 60, Subpart Kb	The tank was installed in 1998 and has not been modified. Subpart Kb does not apply because the vapor pressure of fuel oil is less than 3.5 kilopascals (kPa).
BAAQMD Regulation 8, Rule 5	BAAQMD Regulation 8, Rule 5, Section 117. (The provisions of this rule do not apply to tanks storing organic liquids with a true vapor pressure less than or equal to 0.5 psia).

**Table VII-I
S-54 LSA Storage Tank, T-360**

Citation	Title or Description (Reason not applicable)
40 CFR 60, Subpart K	This tank is not subject to Subpart K because of size (less than 40,000 gallons) and age (built after May 19, 1978 and not modified)
40 CFR 60, Subpart Ka	This source is not subject to Subpart Ka because of size (less than 40,000 gallons) and age (built after May 18, 1978 and not modified)
40 CFR 60, Subpart Kb	This source is not subject to Subpart Kb because it is a pressure vessel designed to operate at 75 psig at 200 degrees F, without emissions to the atmosphere. This is in excess of 204.9 kPa pressure exemption.

D. Alternate Operating Scenario:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

A 6/15/11 office memorandum from the Director of Enforcement to the Director of Engineering presents a review of the compliance record of Rhodia, Inc. (Site # B1661). The Compliance and Enforcement Division staff has reviewed the records for Rhodia, Inc. for the period from June 1, 2002 through June 15, 2011. This review was initiated as part of the District evaluation of an application by Rhodia, Inc. for a Title V permit renewal. During the period subject to review, activities known to the District include:

- There were 4 Notices of Violation (NOV) issued during this review period.
- The District did not receive any alleged complaints.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were no monitor excesses or equipment breakdowns reported or documented by District staff.

Of the 4 NOVs, 3 were emissions related violations and 1 was an administrative violation. There were 6 violations associated with the 4 NOVs. At the time of the compliance review, the 6 violations were in compliance, and achieved compliance shortly after discovery but did not represent ongoing violation that would require a compliance schedule in a Title V permit. In some cases, permit condition modifications have been made to address permit condition violations during the review period. Of the 4 NOVs issued, 2 violations were from the facility self-reporting, pursuant to District regulations and Title V requirements.

Based on this review and analysis of the violations for the 9-year period, the District has concluded that no schedule of compliance or change in permit terms is necessary beyond what is already contained in the current Title V permit for this facility. All other records show that the violations returned to compliance, there are no patterns of recurring violation, and the facility was in compliance at the time of this review.

District staff has conducted a compliance review of 1 Notice to Comply (NTC) issued to Rhodia Inc. from June 1, 2002 through June 15, 2011. The NTC was issued for a late gas audit used to confirm monitor readings. The audit was completed and passed at the time of issuance.

The District received one air pollution complaint alleging Rhodia Inc. as the source. The complaint was not confirmed.

The Compliance and Enforcement Division had made a determination that for the review period, Rhodia Inc. was in intermittent compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations with the exceptions of violations that are being addressed through a compliance and enforcement agreement, that would warrant consideration of a Title V permit compliance schedule or additional permit terms.

F. Differences between the Application and the Proposed Permit:

The Title V renewal permit application was originally submitted on October 31, 2006. This version is the basis for the proposed renewal Title V permit. Revisions were made to application 15374 as a result of changes at the facility that were made pursuant to Permit Applications #16202, 16079, 16756, and 21157. Differences between the application and the proposed permit include the following:

The proposed permit incorporates the Consent Decree requirements and other administrative changes to the Title V permit. Rhodia Inc. entered into a Consent Decree with the U.S. EPA, the U.S. Department of Justice, and other "State Parties," including the BAAQMD. The Consent Decree mandates emission limits for sulfuric acid mist and SO₂.

S-6 Standby Diesel Fire Pump Engine was archived on 6/7/07.

A Permit to Operate was issued for S-56 Standby Diesel Fire Pump Engine on 7/13/07.

A Permit to Operate was issued for S-57 Sulfuric Acid Cleaning Operation on 1/19/10.

APPENDIX A
BAAQMD COMPLIANCE REPORT

COMPLIANCE & ENFORCEMENT DIVISION

Inter-Office Memorandum

June 15, 2011

TO: BRIAN BATEMAN – DIRECTOR OF ENGINEERING *see for BB*
FROM: KELLY WEE – DIRECTOR OF ENFORCEMENT *KW*
SUBJECT: REVIEW OF COMPLIANCE RECORD OF:

RHODIA INC. - SITE # B1661

Background

This review was initiated as part of the District evaluation of an application by Rhodia Inc., for a Title V Permit Renewal. It is standard practice of the Compliance and Enforcement Division to undertake a compliance review in advance of a renewal of a Title V Permit to Operate. The purpose of this review is to assure that any non-compliance problems identified during the prior 9-year permit term have been adequately addressed by returning the facility to compliance, or, if non-compliance persists, that a schedule of compliance is properly incorporated into the Title V permit compliance schedule. In addition, the review checks for patterns of recurring violation that may be addressed by additional permit terms. Finally, the review is intended to recommend, if necessary, any additional permit conditions and limitations to improve compliance.

Compliance Review

Staff reviewed Rhodia Inc., Annual Compliance Certifications for June 1, 2002 to June 15, 2011 and found no ongoing non-compliance and no recurring pattern of violations, which have not already been corrected.

Rhodia Inc., entered into a Federal Consent Decree in July 2007. The impact of the Consent Decree varied on Rhodia facilities throughout the United States depending on the degree of compliance already in place. At the Martinez facility the efficiency of the plant was increased to 2.2 lbs SO₂ per ton acid produced from 2.5. The District has not seen a violation of the more stringent standard since it took effect in July of 2007.

The District has conducted a compliance review of 4 Notices of Violation (NOVs) issued to Rhodia Inc., from June 1, 2002 to June 15 2011. It is important to note that all of the violations associated with the NOVs were in compliance at the time of this review. Furthermore, the District's analysis of the NOVs for the 9-year period indicated that

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REVIEW OF COMPLIANCE RECORD OF:

RHODIA INC. – SITE #B1661

June 15, 2011

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there are no ongoing violations or pattern of recurring violations that would currently require a compliance schedule.

Understanding how the District handles the violations associated with the NOV's is important to understanding how the District evaluated the facility's compliance status. Whenever the District discovers a violation, it begins a two-step process. The first step is to end the violation and bring the alleged violator back into compliance. Once compliance is achieved, the second step is to proceed with penalty assessment. It is District policy to not proceed with penalty assessment until compliance has been achieved. If a facility has not achieved compliance in a timely fashion, the District proceeds with additional enforcement action. The vast majority of Notice of Violation penalties are resolved through settlement negotiations.

The results of the District's compliance review are shown in Table I. As stated above, the 6 violations associated with the 4 NOV's were in compliance at the time of this review. The violations achieved compliance shortly after discovery but did not represent ongoing violation that would require a compliance schedule in a Title V permit. In some cases, permit condition modifications have been made to address permit condition violations during the review period. Of the 4 NOV's issued, 2 violations were from the facility self-reporting, pursuant to District Regulations and Title-V requirements.

Based on this review and analysis of all the violations for the 9-year period, the District has concluded that no schedule of compliance or change in permit terms is necessary beyond what is already contained in the chemical plant's Title V permit. All other records show that the violations returned to compliance, were intermittent or did not evidence on-going non-compliance, there are no patterns of recurring violation, and the facility was in compliance at the time of this review.

The violation details associated with the 4 Notices of Violation (6 violations) are summarized below and detailed in Table 1.

NOV Violation Category	TOTAL
Emissions Related	3
Administrative	1
Permit-to-Operate	0
TOTAL	4

District Staff has conducted a compliance review of 1 Notice to Comply (NTC) issued to Rhodia from June 1, 2002 though June 15, 2011. The NTC was issued for a late gas audit used to confirm monitor readings. The audit was completed and passed at the time of issuance.

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REVIEW OF COMPLIANCE RECORD OF:

RHODIA INC. – SITE #B1661

June 15, 2011

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The District received one air pollution complaint alleging Rhodia Inc., as the source. The complaint was not confirmed.

Conclusion

The Compliance and Enforcement Division has made a determination that for the review period, Rhodia Inc. was in intermittent compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations with the exception of violations that are being addressed through a compliance and enforcement agreement, that would warrant consideration of a Title V permit compliance schedule or additional permit terms.

KJW;WK;JGG;PAC

APPENDIX B

GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer: Head of Bay Area Air Quality Management District

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

Basis

The underlying authority that allows the District to impose requirements.

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEQA

California Environmental Quality Act

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District regulations.

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAPS

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC

Non-methane Hydrocarbons (Same as NMOC)

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC

Precursor Organic Compounds

PM

Particulate Matter

PM10

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2

Sulfur dioxide

THC

Total Hydrocarbons (NMHC + Methane)

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

TPH

Total Petroleum Hydrocarbons

TRMP

Toxic Risk Management Plan

TSP

Total Suspended Particulate

VOC

Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m ²	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
yr	=	year