

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
General Chemical Corporation
Facility #A0023**

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Application: 3907

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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. The statement of basis documents for any permit revisions that may have occurred since the initial Major Facility Review permit was issued are hereby incorporated by reference and are available upon request.

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 identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0023.

This facility received its initial Title V permit on 9/14/98. This application is for a permit renewal. Although the current permit expired on 7/01/02, it continues in force until the District takes final action on the permit renewal. The standard sections of the permit have changed since 9/14/98. The proposed permit shows all changes to the permit in ~~strikeout~~/underline format.

B. Facility Description

The facility produces high quality and specialty blends of sulfuric acid from spent alkylation acid piped from the neighboring refinery, Chevron U.S.A., and from elemental sulfur. The facility uses the decomposition chamber process where the spent acid and sulfur are burned to form sulfur dioxide, which is then reacted with oxygen to form sulfur trioxide. The sulfur trioxide is then hydrated to produce sulfuric acid. Over one half of the facility's capacity is returned to the refinery via pipeline. The remainder is used by a General Chemical electronic chemical operation in Bay Point, CA and by detergent, alum, fertilizer, and auto battery manufacturers. The plant is designed to decompose 600 tons per day of spent sulfuric acid while producing 600 tons per day of fresh sulfuric acid.

Since the District issued the first Title V permit to General Chemical Corporation on 9/14/98, the facility has submitted ten new source review applications, three of which were cancelled. General Chemical has not submitted any applications to revise their Title V permit since the initial permit was issued.

1. Application 3157 was submitted on 7/18/01 for a backup abatement system for Alkylation Acid Storage Tanks (S-S3, S-10, S-13, S-16, and S-32). This system is consists of Activated Carbon Beds (A-4) to remove hydrocarbons and a Caustic Scrubber (A-5) to remove sulfur dioxide. Because this is a backup system, there is no change in emissions for this application during normal operation.
2. Application 3828 was submitted on 12/3/01 for Sulfuric Acid Storage Tank (S-35). Although the use of S-35 results in H_2SO_4 emissions of 0.047 tpy, Regulation 2-1-123.2.1 exempts this source from permitting requirements.
3. Application 4620 was submitted on 3/26/02 for the Back- up Pond Generator (S-33), which was exempt from permit requirements until 5/17/2000 when Regulation 1 and Regulation 2-1 were modified to require engines greater than 50 HP to require a Permit to Operate. There is no net increase in emission from S-33 because it had been in operation since before the District issued the Title V permit. S-33 is now permanently out of service.
4. Application 5782 was submitted on 7/10/02 for a new Emergency Caustic Scrubber System. This project consists of a Caustic Scrubber System (A-6) and a Diesel Caustic Pump(S-34). It will only be used in emergency situations for a maximum of 1 hr/day. A6 will not increase emissions for this plant, but use of the Diesel Pump will result in the following emission increases: NO_x, 0.180 tpy; CO, 0.03 tpy; POC, 0.02 tpy; and PM₁₀, 0.01 tpy.
5. Application 6994 was submitted on 1/27/03 for the installation of a new Natural Gas Generator (S-36) that is abated by a 3-way Non-Selective Catalytic Reduction System (A-33). This application increased annual NO_x (2.76 tpy), CO (11.06 tpy), POC (2.76 tpy), SO₂ (0.03) and PM₁₀ (0.58 tpy) emissions at General Chemical Corp.
6. Application 7350 was submitted on 4/11/03 to replace the damaged Primary Absorption Tower of the Sulfuric Acid Plant (S-1). The new primary Absorption tower resulted in no net difference in throughput or capacity, and thus there is no increase in emissions associated with this application.

7. Application 8786 was submitted on 12/23/03 to raise the emissions limits for A-4, Acid Storage Tanks Back-Up Vent Activated Carbon Beds, and A-5, Acid Storage Tanks Back-Up Vent Packed Tower Caustic Scrubber. There is no increase in emissions since the abatement system is only used in emergencies.
8. Application 21593 was submitted on 2/10/10 to replace two existing electrostatic precipitators at Sulfuric Acid Plant (S-1). There is no increase in emissions associated with this application.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order 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, which 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.

Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

Changes to permit:

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

SIP Regulation 2, Rule 4 - Permits, Emissions Banking, BAAQMD Regulation 2, Rule 5 - New Source Review of Toxic Air Contaminants, BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review, and SIP Regulation 2, Rule 6 - Permits, Major Facility Review have been added to Standard Condition 1.A.

The following language was added to Standard Condition I.B.1: "This Major Facility Review Permit was issued on [] and expires on []."

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.

In Standard Condition I.B.2, "reissuance" has been changed to "re-issuance."

The following language was added to Standard Condition I.B.5: "The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or (strikeout "or") the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition."

The following correction was made to Standard Condition I.B.6: "This permit does not convey any property rights of any sort, (strikeout "nor") or any exclusive privilege."

The following correction was made to Standard Condition I.B.8: "Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code."

The following language was added to Standard Condition I.B.10: "The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources."

Standard Condition I.B.11, which requires the responsible official to certify all documents submitted, was added to conform to changes in Regulation 2, Rule 6.

Standard Condition I.B.12, which requires the permit holder to comply and certify compliance of all conditions of the permit, has been added because it was omitted in error.

Standard Condition I.E.1 requiring the permit holder to provide any information, records, and reports requested or specified by the APCO, was added because it was omitted in error.

Standard Condition I.E is now Standard Condition I.E.2, and the following correction was made: "Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of ~~entry~~ creation of the record."

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

The dates of the reporting periods and reporting deadlines have been added to Standard Conditions I.F and I.G for additional clarity. The reporting periods and deadlines have not changed.

The first sentence of Standard Condition I.F has been changed from " All required monitoring reports must be submitted to the District at least once every six months." to " Reports of all

required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. " to conform more closely to BAAQMD Regulation 2-6-409.18.

Standard Condition I.F was modified to conform to the current standard.

The following language was added to Standard Condition I.G: "The certification period will be July 1st through June 30th. The certification shall be submitted by July 31st of each year."

The following clarification was made to Standard Condition I.G: "The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification ~~should~~ shall be sent to the Environmental Protection Agency at the following address."

Standard Condition I.H was modified to conform to the current standard.

Standard Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

Standard Condition I.J, Accidental Release, has been changed to Condition I.K.

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 emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Rule 2-6-210, per year.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions 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 be listed in the abatement device table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

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 the permitted sources 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 equipment list between the time that the facility originally applied for a Title V permit and the permit proposal date:

Devices Removed from Service or Archived since Application was submitted:

S-6 Sulfuric Acid Tank has been removed.

S-7 Sulfur Melting Pit is permanently out of service.

S-14 Gasoline Dispensing Facility (GDF #6363), is permanently out of service.

S-33 Standby Generator Diesel Engine is permanently out of service.

Devices Permitted Since Application was submitted:

An Authority to Construct was issued for A-6 Packed Bed Scrubber and S-34 Caustic Pump Diesel Engine on 6/5/02 under application 5782.

An Authority to Construct was issued for A-4 Back-up Vent Activated Carbon Beds and A-5 Back-Up Vent Packed Tower Caustic Scrubber on 5/7/03 under application 3157. The permit conditions were modified and a revised Permit to Operate was issued on October 1, 2003 under application 8786.

An Authority to Construct was issued for S-34 Caustic Pump Diesel Engine on 8/6/08 under application 5782.

A Letter of Exemption was issued for S-35 T-303, Sulfuric Acid Storage Tank on 8/20/02 under application 3828.

An Authority to Construct was issued for S-36 Natural Gas-Fired IC Engine on 1/9/04 under application 6994.

Devices with Changed Permit Status:

S-36 Natural Gas Generator has lost its permit exemption since the original Title V permit was issued in 1997.

District permit applications not included in this proposed permit

None

Corrections to Devices Shown in Application

None

Changes to permit:

The title of Section II has been changed from “Equipment List” to “Equipment.”

The following changes were made to Table II-A:

- Added language to clarify that the capacity limits in the Table are enforceable limits.
- S-6 Sulfur Storage Tank, deleted, removed from service
- S-7 Sulfur Melting Pit, deleted, removed from service
- S-14 Gasoline Dispensing Facility (GDF #6363), deleted, removed from service
- Added S-34 Caustic Pump Diesel Engine
- Added S-36 Natural Gas Fired IC Engine

The following changes were made to Table II-B:

- Changed title of table to “Table II-B – Abatement Devices”
- Removed source numbers in Applicable Requirement description
- For A-1, BAAQMD Regulation 6-1-320 was added to Applicable Requirement description because it was previously omitted
- For A-1, BAAQMD Regulation 12-6-301 was added to Applicable Requirement description because it was previously omitted
- For A-1, SIP Regulation 6-320 was added to Applicable Requirement description because it was previously omitted
- For A-1, added reference to BAAQMD Regulation 9-1-309 because it was previously omitted
- For A-1, added BAAQMD Regulation 6-1-320 and SIP Regulation 6-320 emission limit to Required Efficiency description
- For A-1, added BAAQMD Regulation 12-6-301 emission limit to Required Efficiency description
- For A-1, removed Condition #13507, part 2 from Applicable Requirement description
- For A-2, added S-16 to Source(s) Controlled description because it was previously omitted
- For A-2, removed BAAQMD Regulation 6-320 emission limits because A-2 vents directly to A-1 and does not vent to atmosphere
- For A-2, removed BAAQMD Regulation 12-6-301 emission limits because A-2 vents directly to A-1 and does not vent to atmosphere
- For A-2, removed Condition #13507, part 2 from Applicable Requirement description
- A-4 Acid Storage Back-Up Vent Activated Carbon Beds, added per NSR # 3157
- A-5 Acid Storage Back-Up Vent Packed Tower Caustic Scrubber, added per NSR # 3157
- A-6 Emergency Caustic Scrubber System, added per NSR # 5782

- A-33 SCR Emission Control System, added per NSR # 6994
- S-1 Sulfuric Acid Manufacturing Plant, added per NSR # 1592

Table II-C was added for exempt sources S-19 East Loading/Unloading Station (Sulfuric Acid), S-21 South Loading/Unloading Station, and S-35 T-303, Sulfuric Acid Storage Tank. Pursuant to Regulation 2-6-239, these sources are considered to be significant because each has a potential to emit more than 2 TPY of a regulated air pollutant.

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 Sections IV and 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 BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered *significant sources* pursuant to the definition in BAAQMD Rule 2-6-239.

Changes to permit:

The title of Section III has been changed from “General Applicable Requirements” to “Generally Applicable Requirements.”

The following correction was made to Section III: “The District has determined that these requirements ~~would~~will not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted.”

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.”

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.

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.

A note has been added to clarify the difference between BAAQMD rules and the versions of the rules in the SIP.

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

- BAAQMD Regulation 2, Rule 1, General Requirements
- 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
- 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
- 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) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in 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 portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it 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, which 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. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Complex Applicability Determinations:

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. CAM does not apply for sulfuric acid mist because the mist eliminator is not considered to be a stand-alone control device for the purposes of CAM. Because the mist eliminator is used to recover sulfuric acid, it is considered to be inherent process equipment for the sulfuric acid production process. Therefore, the mist eliminator shall be considered part of S-1 Sulfuric Acid Plant. This interpretation is consistent with the treatment of other sulfuric acid production facilities across the country. EPA has previously determined that the facilities listed below are not subject to CAM.

Plant Name	Location
General Chemical	Anacortes, WA
General Chemical	Augusta, GA
J.R. Simplot	Pocatello, ID
E.I. DuPont De Nemours and Company	Wurtland, KY
PCS Phosphate Co Inc	Aurora, NC
Kennecott Utah Copper Corp	Magna, UT
Climax Molybdenum Co	Fort Madison, IA
Rhodia	Hammond, IN
Wilbara, LLC	Wilmington, NC
PCS Nitrogen Fertilizer LP	Geismar, LA

Applicability of 112(j)

The 1990 Amendments to section 112 of the Clean Air Act included a new section 112(j), which is entitled “Equivalent Emission Limitation by Permit.” Section 112(j)(2) provides that the provisions of section 112(j) apply eighteen months after the EPA misses a deadline for promulgation of a standard under section 112(d) established in the source category schedule for standards. General Chemical is subject to 112(j) because they are a major source of HAPs.

On May 20, 1994, EPA issued a final rule (40 CFR 63, Subpart B) for implementing section 112(j). That rule requires major source owners or operators to submit a permit application 18

months after a missed date on a regulatory schedule. 40 CFR 63, Subpart B also establishes requirements for the content of the permit applications and contains provisions governing the establishment of the maximum achievable control technology (MACT) equivalent emission limitations by the permitting authority.

On March 30, 2010, EPA proposed an amended Subpart B to clarify the process for sources and permitting authorities to follow in establishing case-by-case emissions limitations under section 112(j) in the case of complete vacatur of a section 112(d) MACT standard, and to streamline the permit application by combining the Part 1 and Part 2 permit application.

On June 8, 2007, the United States Court of Appeals for the District of Columbia Circuit vacated the 2004 NESHAP for the Industrial, Commercial and Institutional Boilers and Process Heaters (“Boilers”) source category, 40 CFR 63 Subpart DDDDD (also referred to as the Boiler MACT). The Court vacated this regulation in its entirety and issued the mandate effectuating the vacatur of the Boilers standards on July 30, 2007. The proposed amendments to Subpart B described above clarify that the section 112(j) regulations do apply in the case of such vacatur. In the proposed amended Subpart B, EPA also proposed a new deadline for submittal of a permit application to obtain a section 112(j) limit in the case of a complete vacatur. For the Boilers standards, EPA proposed to revise 40 CFR 63.52(a) to require that such sources submit permit applications the earlier of 90 days after promulgation of the Subpart B amendments or the date by which a source’s permitting authority has requested in writing a section 112(j) Part 2 application. The facility submitted the Part 2 application on January 29, 2009.

On June 4, 2010, EPA published a new proposed Boiler MACT in the Federal Register. The Boiler MACT became final on March 21, 2011. The final rule (40 CFR Part 63, Subpart DDDDD) would reduce emissions of a number of toxic air pollutants, including mercury, other metals, and organic air toxics, which include polycyclic organic matter (POM) and dioxins.

In the Boiler MACT, EPA adopted a work practice standard under section 112(h) that requires an annual tune-up for existing natural gas-fired boilers and process heaters at a Major Source facility. Existing natural gas-fired units > 10 MMBtu/hr would be subject to a work practice standard consisting of annual tune-ups. Existing units with a heat input capacity < 10 MMBtu/hr would be subject to a work practice standard consisting of tune-ups every two years. The tune-up requirements are specified in §63.7540(a)(10) of the Boiler MACT. Additionally, existing natural gas-fired units at a Major Source facility must undergo a one-time energy assessment of cost-effective energy conservation measures. The energy assessment program is described in Table 3 of the Boiler MACT.

For existing natural gas-fired boilers and process heaters, EPA adopted a work practice standard in lieu of emission standards for the following reasons:

- Implementing emission standards would result in high capital costs of installing controls on such units to comply with MACT limits. This capital cost is higher than the estimated combined capital cost for the types of boilers and process heaters that are subject to emission standards.

- EPA believes that proposing emission standards for existing natural gas-fired boilers and process heaters that result in the need to employ the same emission control system as needed for the other fuel types would have the negative benefit of providing a disincentive for switching to gas as a control technique (and a pollution prevention technique) for boilers and process heaters in the other fuel subcategories.
- Emission limits on existing natural gas-fired boilers and process heaters may have the negative benefit of providing an incentive for a facility to switch from gas (considered a “clean” fuel) to a “dirtier” but cheaper fuel (i.e, coal).

For existing natural gas-fired boilers and process heaters, EPA adopted a “beyond the MACT floor” level of control consisting of a one-time energy assessment for the following reasons:

- If a facility implemented the cost-effective energy conservation measures identified in the energy assessment, it would potentially result in greater HAP reduction than achieved by a boiler tune-up alone and potentially reducing HAP emissions by an additional 820 to 1,640 TPY.
- The costs of any energy conservation improvement will be offset by cost savings in lower fuel costs.
- EPA believes that an energy assessment is an appropriate beyond-the-floor control technology because it is one of the measures identified in CAA section 112(d)(2), which states that “Emission standards promulgated ... and applicable to new or existing sources ... is achievable ... through application of measures, processes, methods, systems or techniques including, but not limited to measures which – (A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications.”

Based on the proposed amended 40 CFR 63 Subpart B described above, the BAAQMD has determined that the existing process heaters at this facility (S-9 Process Air Heater and S-15 Startup Air Heater) are subject to the case-by-case MACT requirement. The District has determined that the case-by-case MACT is equivalent to the final Boiler MACT. Because S-9 and S-15 are both existing natural gas-fired units > 10 MMBtu/hr, they will be subject to the work practice standard in the Boiler MACT consisting of annual tune-ups, and must also undergo a one-time energy assessment of cost-effective energy conservation measures.

Applicable requirements for the proposed amended 40 CFR 63 Subpart B and adopted 40 CFR Part 63, Subpart DDDDD have been included in the proposed Title V permit, including the future effective dates.

Changes to permit:

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 the full language of 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 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 Manufacturing Process:

- 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 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 SIP Regulation 1-523.5 since it was previously omitted
- Removed 11/10/82 version of SIP Regulation 1 because it has been replaced with the 6/28/99 version
- Removed 6/16/83 version of SIP Regulation 6 because it has been replaced with the 9/4/98 version
- Removed 5/3/84 version of SIP Regulation 9, Rule 1 because BAAQMD Regulation 9, Rule 1 is now federally enforceable
- Added NSPS 40 CFR, Part 60 Subpart Cd since it was previously omitted
- Added BAAQMD Condition #14980 Part 2 per application #21593

The following changes were made to Table IV-B, S-9 Process Air Heater:

- Removed 5/3/84 version of SIP Regulation 9, Rule 1 because BAAQMD Regulation 9, Rule 1 is now federally enforceable
- Added 40 CFR 63 Subpart B
- Added 40 CFR 63 Subpart DDDDD

The following changes were made to Table IV-D, S-14 Gasoline Dispensing Facility:

- Deleted Table IV-D because S-14 is permanently out of service

The following tables have been renumbered:

- Table IV-E renumbered to Table IV-D
- Table IV-F renumbered to Table IV-E

- Table IV-G renumbered to Table IV-F
- Table IV-H renumbered to Table IV-G
- Table IV-I renumbered to Table IV-H
- Table IV-J renumbered to Table IV-I

The following changes were made to Table IV-D (renumbered from Table IV-E), S-15 Startup Air Heater:

- Removed 5/3/84 version of SIP Regulation 9, Rule 1 because BAAQMD Regulation 9, Rule 1 is now federally enforceable
- Added 40 CFR 63 Subpart B
- Added 40 CFR 63 Subpart DDDDD
- For BAAQMD Condition #7606 Part 1, deleted “Annual Fuel Use Limit” and the corresponding basis from description of equipment because the annual fuel use limit is in Part 2
- Added BAAQMD Condition #7606 Part 2 because it was previously omitted
- BAAQMD Condition #7606 Part 2 renumbered Part 3
- BAAQMD Condition #7606 Part 3 renumbered Part 4
- BAAQMD Condition #7606 Part 4 renumbered Part 5

The following changes were made to Table IV-H (renumbered from Table IV-I), S-24 Electronic Grade Sulfuric Acid Manufacturing Process:

- Added “BAAQMD” to Regulation 1 for clarification
- Added SIP Regulation 1-522.7 since BAAQMD Regulation 1-522.7 is no longer federally enforceable
- Removed 11/10/82 version of SIP Regulation 1 because it has been replaced with the 6/28/99 version
- Removed 6/16/83 version of SIP Regulation 6 because it has been replaced with the 9/4/98 version
- Removed 5/3/84 version of SIP Regulation 9, Rule 1 because BAAQMD Regulation 9, Rule 1 is now federally enforceable
- Added NSPS 40 CFR, Part 60 Subpart Cd since it was previously omitted

The following tables have been added:

- Table IV-J for S-2 Sulfuric Acid Storage Tank, S-5 Sulfuric Acid Storage Tank, S-11 Sulfuric Acid Storage Tank, S-28 Sulfuric Acid Storage Tank, S-29 Sulfuric Acid Storage Tank, S-30 Sulfuric Acid Storage Tank, S-31 Sulfuric Acid Storage Tank
- Table IV-K for S-3 Alkylation Acid Storage Tank, S-10 Alkylation Acid Storage Tank
- Table IV-L for S-8 New Sulfur Melting Pit
- Table IV-M for S-20 Truck Loading/Unloading Station, S-22 Sulfur Unloading Station
- Table IV-N for S-34 Caustic Pump Diesel Engine
- Table IV-O for S-36 Natural Gas Fired IC Engine

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 contains only sections 2-6-409.10.1 and 2-6-409.10.2.

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

Changes to permit:

The schedule of compliance now states that the permit holder shall also comply with applicable requirements “cited in” this permit that become effective during the term of the permit "on a timely basis" to follow the regulation more closely.

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.

When 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 “strike-out” language will be deleted; all “underline” language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also 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. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

When applicable, conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

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

When applicable, conditions have also been deleted due to the following:

- Redundancy in record-keeping requirements.
- Redundancy in other conditions, regulations and rules.
- The condition has been superseded by other regulations and rules.
- The equipment has been taken out of service or is exempt.
- The event has already occurred (i.e. initial or start-up source tests).

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- **BACT:** This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- **Cumulative Increase:** This term 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 term 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 term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

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 #708, that applied to S-14 Gasoline Dispensing Facility, has been deleted because S-14 is permanently out of service.

Permit Evaluation and Statement of Basis: Site #A0023, General Chemical Corporation, 525 Castro Street, Richmond CA 94801

Condition #2051, part 1, that applies to S-13 Alkylation Acid Storage tank, has been modified per application #3157 to allow abatement by A-4 Acid Storage Tanks Back-up Vent Activated Carbon Canisters and A-5 Acid Storage Tanks Back-up Vent Packed Tower Caustic Scrubber when the S-1 decomposition furnaces are unavailable.

In Condition #7934, Refinery Make Gas (RMG) has been removed because the facility no longer burns Refinery Make Gas at S-9.

Condition #12051, part 2, that applies to S-17 Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid), has been corrected to state that it applies to S-17 (and not S-3, S-10, and S-13), and has been modified per application #3157 to allow abatement by A-4 Acid Storage Tanks Back-up Vent Activated Carbon Beds and A-5 Acid Storage Tanks Back-up Vent Packed Tower Caustic Scrubber when the S-1 decomposition furnaces are unavailable.

Condition #12052, part 2, that applies to S-18 Truck Unloading Station (Alkylation Acid), has been corrected to state that it applies to S-18 (and not S-3, S-10, and S-13), and has been modified per application #3157 to allow abatement by A-4 Acid Storage Tanks Back-up Vent Activated Carbon Beds and A-5 Acid Storage Tanks Back-up Vent Packed Tower Caustic Scrubber when the S-1 decomposition furnaces are unavailable.

Condition #13215, part 2, that applies to S-16 Alkylation Acid Storage tank, has been modified per application #3157 to allow abatement by A-4 Acid Storage Tanks Back-up Vent Activated Carbon Canisters and A-5 Acid Storage Tanks Back-up Vent Packed Tower Caustic Scrubber when the S-1 decomposition furnaces are unavailable.

Condition #13889, part 1, that applies to S-32 Acid Storage tank, has been modified to allow abatement by A-4 Acid Storage Tanks Back-up Vent Activated Carbon Canisters and A-5 Acid Storage Tanks Back-up Vent Packed Tower Caustic Scrubber when the S-1 decomposition furnaces are unavailable and the tank contains spent alkylation acid.

Condition #14980, part 1, has been modified to clarify that annual source testing is required at the exhaust at A-1 to comply with BAAQMD Regulation 12-6-301 and 40 CFR 60.31d.

Condition #14980, part 2, has been added per application #21593.

Condition #19267 that applies to A-4 Activated Carbon Beds, A-5 Packed Tower Caustic Scrubber, S-3 Acid Storage Tank, and S-10 Acid Storage Tank has been added per application #3157 and 8786.

Condition #20509 that applies to S-36 Natural Gas Generator has been added per application #6994.

Condition #20580 that applies to A-6 Emergency Caustic Scrubber System has been added per application #5782.

Condition #20581 that applies to S-34 Caustic Pump Diesel Engine, has been added per application #5782.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

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 headings at the top of the tables have been updated. “Pollutant” has been changed to “Type of Limit” since not every limit is a pollutant limit. “Emission Limit Citation” has been changed to “Citation of Limit” since not every limit is an emission limit. “Emission Limit” has been changed to “Limit” since not every limit is an emission limit.
- “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.
- The “type of limit” has been changed to “Opacity” for BAAQMD Regulation 6-1-301, since it is an opacity standard.
- The “type of limit” has been changed to “FP” for BAAQMD Regulation 6-1-310 and 6-1-311, since it is a filterable particulate standard.
- SIP Regulation 9-1-301 has been deleted because BAAQMD Regulation 9-1-301 is now in the SIP.
- The federal enforceability for BAAQMD Regulation 9-1 has been changed from “N” to “Y” because the regulation is now in the SIP.

The following tables have been renumbered:

- Table VII-D renumbered to Table VII-C
- Table VII-E renumbered to Table VII-D
- Table VII-F renumbered to Table VII-E
- Table VII-G renumbered to Table VII-F
- Table VII-H renumbered to Table VII-G
- Table VII-I renumbered to Table VII-H

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

- Clarified that compliance with the SO₂ emission limit in BAAQMD Regulation 9-1-309 ensures compliance with the SO₂ standard in BAAQMD Regulation 9-1-301
- “Acid mist” changed to “Sulfuric Acid mist” for clarification
- “BAAQMD Cond #14980” changed to “BAAQMD Condition #14980, part 1” because the annual source testing requirement for sulfuric acid mist is found in this condition part, and because this condition now has more than one part
- Added BAAQMD Regulation 12-6-301 to table
- Added NSPS 40 CFR 60.31d
- Added BAAQMD Condition #14980, part 1 to Monitoring Requirement Citation column for SO₃ and H₂SO₄ because it was previously omitted

The following changes were made to Table VII-B, S-9 Process Air Heater:

- The federal enforceability for BAAQMD Regulation 9-7 has been changed from “N” to “Y” because the regulation is now in the SIP
- Moved BAAQMD Condition #7934, parts 2 and 3 to the end of the table for consistency

The following changes were made to Table VII-C, S-14 Gasoline Dispensing Facility:

- Deleted Table VII-C because S-14 is permanently out of service

The following changes were made to Table VII-C (renumbered from Table VII-D), S-15 Startup Air Heater:

- Deleted BAAQMD Regulation 9-7-301.1 because NO_x emissions limits are given in BAAQMD Condition #7606, part 3
- Deleted BAAQMD Regulation 9-7-301.2 because CO emissions limits are given in BAAQMD Condition #7606, part 4

The following tables have been added:

- Table VII-G for S-2 Sulfuric Acid Storage Tank, S-5 Sulfuric Acid Storage Tank, S-11 Sulfuric Acid Storage Tank, S-28 Sulfuric Acid Storage Tank, S-29 Sulfuric Acid Storage Tank, S-30 Sulfuric Acid Storage Tank, S-31 Sulfuric Acid Storage Tank
- Table VII-H for S-3 Alkylation Acid Storage Tank, S-10 Alkylation Acid Storage Tank
- Table VII-I for S-8 New Sulfur Melting Pit
- Table VII-J for S-13 Alkylation Acid Storage Tank #16
- Table VII-K for S-17 Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid)
- Table VII-L for S-18 Truck Unloading Station (Alkylation Acid)
- Table VII-M for S-20 Truck Loading/Unloading Station, S-22 Sulfur Unloading Station
- Table VII-N for S-34 Caustic Pump Diesel Engine
- Table VII-O for S-36 Natural Gas Fired IC Engine

The District has reviewed all monitoring and has determined the existing monitoring is adequate with the following exceptions.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other

limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

NO_x Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-9 Process Air Heater	BAAQMD Regulation 9-7-301.1	30 ppmv, dry @ 3% O ₂	None
S-15 Startup Air Heater	BAAQMD Condition #7606, part 3	66 ppmv, dry @ 3% O ₂	None

NO_x Discussion:

S-9 Process Air Heater was source tested on June 12, 1998 to determine compliance with the NO_x emission standard of Regulation 9-7-301.1 that became effective on January 1, 1996. The results of the test showed that S-9 was in compliance with those standards. S-9 emitted 18.9 ppm NO_x @ 3% O₂ which complies with the 9-7-301.1 limit of 30 ppm NO_x.

The potential to emit for S-9 is not significant based upon 8,760 hours of operation per year and the maximum allowable emission rate of 30 ppm as shown below:

$$(0.037 \text{ lb/MM BTU})(15 \text{ MM BTU/hr})(8,760 \text{ hr/yr}) = 4,862 \text{ lb/yr}$$

Therefore, additional monitoring is not necessary to insure ongoing compliance with this standard for S-9.

S-15 Startup Air Heater was source tested on May 10, 1994 to determine compliance with the NOx emission standard of BAAQMD condition #7606, part 3. The results of the test showed that S-15 was in compliance with those standards. S-15 emitted 22.4 ppm NOx @ 3% O₂ which complies with the permit condition limit of 66 ppm NOx.

The potential to emit for S-15 is not significant based upon the annual natural gas usage limit of 5,000,000 cubic feet per year established under condition #7606, part 2 and the maximum allowable NOx emission rate of 66 ppm (equivalent to 0.082 lb/MM BTU) as shown below:

$$(0.082 \text{ lb/MM BTU})(5,000,000 \text{ ft}^3/\text{yr})(1050 \text{ BTU}/\text{ft}^3) = 431 \text{ lb/yr}$$

Therefore, additional monitoring is not necessary to insure ongoing compliance with this standard for S-15.

CO Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-9 Process Air Heater	BAAQMD Regulation 9-7-301.2	400 ppmv, dry @ 3% O ₂	None
S-15 Startup Air Heater	BAAQMD Condition #7606, part 4	50 ppmv, dry @ 3% O ₂	None

CO Discussion:

S-9 Process Air Heater was source tested on June 12, 1998 to determine compliance with the CO emission standard of Regulation 9-7-301.1 that became effective on January 1, 1996. The results of the test showed that S-9 was in compliance with those standards. S-9 emitted 167.1 ppm CO @ 3% O₂ which complies with the 9-7-301.1 limit of 400 ppm CO.

The potential to emit for S-9 is not significant based upon 8,760 hours of operation per year and the maximum allowable emission rate of 400 ppm as shown below:

$$(0.3 \text{ lb/MM BTU})(15 \text{ MM BTU/hr})(8,760 \text{ hr/yr}) = 39,420 \text{ lb/yr}$$

Therefore, additional monitoring is not necessary to insure ongoing compliance with this standard for S-9.

S-15 Startup Air Heater was source tested on May 10, 1994 to determine compliance with the CO emission standard of BAAQMD condition #7606, part 4. The results of the test showed that S-15 was in compliance with that standard. S-15 emitted 2.2 ppm NO_x @ 3% O₂ which complies with the permit condition limit of 50 ppm CO.

The potential to emit for S-15 is not significant based upon the annual natural gas usage limit of 5,000,000 cubic feet per year established under condition #7606, part 2 and the maximum allowable CO emission rate of 50 ppm (equivalent to 0.0375 lb/MM BTU) as shown below:

$$(0.0375 \text{ lb/MM BTU})(5,000,000 \text{ ft}^3/\text{yr})(1050 \text{ BTU}/\text{ft}^3) = 197 \text{ lb}/\text{yr}$$

Therefore, additional monitoring is not necessary to insure ongoing compliance with this standard for S-15.

SO₂ Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-1 Sulfuric Acid Manufacturing Plant, S-9 Process Air Heater, S-15 Startup Air Heater, S-24 Electronic Grade Sulfuric Acid Manufacturing Process	BAAQMD 9-1-301	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	None
S-9 Process Air Heater, S-15 Startup Air Heater	BAAQMD 9-1-302	300 ppm (dry)	None
S-34 Caustic Pump Diesel Engines	BAAQMD 9-1-304	Sulfur content of liquid fuel < 0.5% by weight	Fuel Certification

SO₂ Discussion:

BAAQMD Regulation 9-1-301

Because both S-1 Sulfuric Acid Plant and S-24 Electronic Grade Sulfuric Acid Plant are abated by A-1 Sulfur Dioxide Abatement System they achieve SO₂ emission rates of less than 300 ppmvd, @ 12% O₂ (monitored continuously by CEM) in compliance with BAAQMD Regulation 9-1-309. Therefore, normal operation of S-1 and S-24 are not expected to result in violations of the ground level concentration limits of Regulation 9-1-301 and additional monitoring 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 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. S-9 Process Air Heater and S-15 Start-up Air Heater are fired exclusively with natural gas. Therefore, no monitoring is necessary for this requirement.

BAAQMD Regulation 9-1-302

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 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. S-9 Process Air Heater and S-15 Start-up Air Heater are fired exclusively with natural gas. Therefore, no monitoring is necessary for this requirement.

BAAQMD Regulation 9-1-304

Because S-34 Caustic Pump Diesel Engine will be fired exclusively on "California diesel Fuel" that has a maximum sulfur content of 500 ppmw (0.05% by weight) compliance with Regulation 6-304 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 source.

H₂SO₄ Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-1 Sulfuric Acid Manufacturing Plant, S-24 Electronic Grade Sulfuric Acid Manufacturing Process	BAAQMD 12-6-301	0.15 g/kg (0.3 lb/ton) of acid produced	Annual source test

H₂SO₄ Discussion:

BAAQMD Regulation 12-6-301

An annual source test is required for the above sources to comply with BAAQMD Regulation 12-6-301.

PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S-1 Sulfuric Acid Manufacturing Plant, S-9 Process Air Heater, S-15 Start-up Air Heater, S-24 Electronic Grade Sulfuric Acid Manufacturing Process	BAAQMD Regulation 6-301	Ringelmann 1.0	None
S-34 Caustic Pump Diesel Engines	BAAQMD Regulation 6-303.1	Ringelmann 2.0	None
S-1 Sulfuric Acid Manufacturing Plant, S-24 Electronic Grade Sulfuric Acid Manufacturing Process	BAAQMD Regulation 6-310	0.15 gr/dscf	None
S-9 Process Air Heater, S-15 Start-up Air Heater, and S-34 Caustic Pump Diesel Engines	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O ₂	None
S-1 Sulfuric Acid Manufacturing Plant, S-24 Electronic Grade Sulfuric Acid Manufacturing Process	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None

PM Discussion:

BAAQMD Regulation 6 “Particulate Matter and Visible Emissions”

Visible Emissions

Because both S-1 Sulfuric Acid Plant and S-24 Electronic Grade Sulfuric Acid Plant are abated by A-1 Sulfur Dioxide Abatement System, they achieve SO₂ emission rates of less than 300 ppmvd, @ 12% O₂ (monitored continuously by CEM) in compliance with BAAQMD Regulation 9-1-309. Therefore, normal operation of S-1 and S-24 are not expected to result in violations of the visible emissions standard of Regulation 6-1-301 and additional monitoring is not necessary.

BAAQMD Regulation 6-301 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). Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. Sources S-9 Process Air Heater and S-15 Start-up Air Heater burn natural gas exclusively, therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

BAAQMD Regulation 6-303.1 limits visible emissions to no darker than 2.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour) for engines of less than 1500 cubic inch displacement. No monitoring has been required for S-34 Caustic Pump Diesel Engine since visible emissions violations are not expected for properly tuned engines.

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) 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. These are the "grain loading" standards.

Because both S-1 Sulfuric Acid Plant and S-24 Electronic Grade Sulfuric Acid Plant are abated by A-1 Sulfur Dioxide Abatement System, they achieve sulfuric acid mist emission rates of less than 0.15 g/kg of acid produced in compliance with BAAQMD Regulation 12-6-301. Therefore, normal operation of S-1 and S-24 are not expected to result in violations of the grain loading limit of Regulation 6-310 and additional monitoring is not necessary.

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Sources S-9 Process Air Heater and S-15 Start-up Air Heater burn natural gas exclusively, therefore, per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with Regulation 6-310.3 for these sources.

Allowable Rate of Emissions Based on Process Weight Rate

Because both S-1 Sulfuric Acid Plant and S-24 Electronic Grade Sulfuric Acid Plant are abated by A-1 Sulfur Dioxide Abatement System, they achieve sulfuric acid mist emission rates of less than 0.15 g/kg of acid produced in compliance with BAAQMD Regulation 12-6-301. Therefore, normal operation of S-1 and S-24 are not expected to result in violations of the process weight based mass emission limits of Regulation 6-311 and additional monitoring is not necessary.

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 also appear in Section IV of the permit.

Changes to permit:

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

An alternate method was added for Regulation 6-1-301, 6-1-310 and 6-1-311.

The test methods for Regulation 6-1-303, 9-1-304, 9-1-302, and 9-1-304 were added.

The test methods for SIP Regulation 9-1-301, 9-1-308, and 9-1-309 have been removed.

Method 19B has been removed from the test methods for Regulations 9-1-302 and 9-1-304 because it is obsolete.

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 explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting 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 type of permit shield.

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.

**Table IX-A
S-1 Sulfuric Acid Manufacturing Process**

Citation	Title or Description (Reason not applicable)
SIP 9-1-302	General Emission Limitation (Source is subject to Section 9-1-309)
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for this source)
40 CFR 60.82	Standards of Performance for Sulfuric Acid Plants (Source constructed prior to 8/17/71 and not modified as defined by 40 CFR 60.14 since 8/17/71)
40 CFR 60.83	Standards of Performance for Sulfuric Acid Plants (Source constructed prior to 8/17/71 and not modified as defined by 40 CFR 60.14 since 8/17/71)

**Table IX-B
S-24 Sulfuric Acid Manufacturing Process**

Citation	Title or Description (Reason not applicable)
SIP 9-1-302	General Emission Limitation (Source is subject to Section 9-1-309)
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for this source)
40 CFR 60.82	Standards of Performance for Sulfuric Acid Plants (Source is not Sulfuric Acid Manufacturing as defined by 60.81(a))
40 CFR 60.83	Standards of Performance for Sulfuric Acid Plants (Sources is not Sulfuric Acid Manufacturing as defined by 60.81(a))

**Table IX-C
Facility-Wide**

Citation	Title or Description (Reason not applicable)
SIP 6-302	Opacity Limitation (SIP regulations do not require opacity monitoring for these sources)

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

A 5/25/11 office memorandum from the Director of Enforcement, to the Director of Engineering, presents a review of the compliance record of General Chemical (Site #: A0023). The Compliance and Enforcement Division staff has reviewed the records for General Chemical for the period from September 1, 1998 through April 30, 2011. This review was initiated as part of the District evaluation of an application by General Chemical for a Title V permit renewal. During the period subject to review, activities known to the District include:

- There were 15 Notices of Violation (NOV) issued during this review period.
- The District received 11 alleged complaints.
- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were 1 breakdown request, 4 indicated monitor excesses, 0 pressure relief device releases, and 7 inoperative monitor reports.

Of the 15 NOVs, 10 were emissions related violations and 5 were administrative violations. There were 15 violations associated with the 15 NOVs. In 93% of the violations, compliance was achieved within 1 day of occurrence. The one violation that took 15 days to correct was for missing records that were eventually made available. The violations did not indicate recurrent patterns of violation because investigations into the cause of the violations revealed unrelated causes.

Based on this review and analysis of the violations for the 11.8-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, as the record showed 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.

District staff has conducted a compliance review for General Chemical and 1 Notice to Comply (NTC) was issued to General Chemical from September 1, 1998 to April 30, 2011. This NTC was issued for Regulation 1, Rule 522.7 for three days of missing records. The District uses the NTC to achieve compliance by using enforcement action appropriate to the severity of the violation.

Permit Evaluation and Statement of Basis: Site #A0023, General Chemical Corporation, 525 Castro Street, Richmond CA 94801

During the period from September 1, 1998 to April 30, 2011, the District received 11 air pollution complaints alleging General Chemical as the source. The complaints were not confirmed.

The District received 1 notification for a Reportable Compliance Activity (RCA): 1 breakdown request, 4 indicated monitor excesses, 0 pressure relief device releases, and 7 inoperative monitor reports. Of the RCAs, 4 resulted in NOVs.

The Compliance and Enforcement Division had made a determination that for the review period, General Chemical was in intermittent compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations 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 permit renewal application was originally submitted on December 18, 2001. This version is the basis for constructing the proposed Title V renewal permit. Revisions were made to application 3907 as a result of changes at the facility that were made pursuant to permit applications 5782, 3157, and 8786. Changes to the permit conditions, application, sources, etc. include the following:

An Authority to Construct was issued for A-6 Packed Bed Scrubber and S-34 Caustic Pump Diesel Engine on 6/5/02 under application 5782.

An Authority to Construct was issued for A-4 Back-Up Vent Activated Carbon Beds and A-5 Back-up Vent Packed Tower Caustic Scrubber on 5/7/03 under application 3157. The permit conditions were modified and a revised Permit to Operate was issued on February 6, 2004 under application 8786.

A Permit to Operate was issued for S-36 Natural Gas Generator and A-33 Non-Selective Catalytic Reduction System on 1/9/04.

APPENDIX A
BAAQMD COMPLIANCE REPORT

COMPLIANCE & ENFORCEMENT DIVISION

Inter-Office Memorandum

May 25, 2011

TO: BRIAN BATEMAN – DIRECTOR OF ENGINEERING *BB 6/16*

FROM: KELLY WEE – DIRECTOR OF ENFORCEMENT *KW*

SUBJECT: REVIEW OF COMPLIANCE RECORD OF:

GENERAL CHEMICAL - SITE # A0023

Background

This review was initiated as part of the District evaluation of an application by General Chemical 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 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

District staff reviewed General Chemical Annual Compliance Certifications for September 1, 1998 to April 30, 2011 and found no ongoing non-compliance and no recurring pattern of violations, which have not already been corrected.

The District has conducted a compliance review of 15 Notices of Violation (NOVs) issued to General Chemical from September 1, 1998 to April 30, 2011. It is important to note that all violations associated with the NOVs were in compliance at the time of this review. The District's analysis of the NOVs for the 12.8-year period indicated that 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 NOVs 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

REVIEW OF COMPLIANCE RECORD OF:

GENERAL CHEMICAL - SITE #A0023

May 25, 2011

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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 15 violations associated with the 15 NOVs were in compliance at the time of this review. In 93% of the violations, compliance was achieved within 1 day of occurrence. The one violation that took 15 days to correct was for missing records that were eventually made available. The violations did not indicate recurrent patterns of violation because investigations into the cause of the violations revealed unrelated causes.

Based on this review and analysis of all the violations for the 11.8-year period, the District has concluded that no schedule of compliance or change in permit terms is necessary beyond what is already contained in General Chemical's Title V permit, as the record showed 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 15 Notices of Violation (15 violations) are summarized below and detailed in Table 1.

Violation Category	TOTAL
Emissions Related	10
Administrative	5
Permit-to-Operate	0
TOTAL	15

District Staff has conducted a compliance review for General Chemical and one (1) Notice to Comply (NTC's) was issued for regulation 1, rule 522.7 for three days of missing records. The District uses the NTC to achieve compliance by using enforcement action appropriate to the severity of the violation. In most cases, these minor violations involve procedural, administrative, or recordkeeping omissions that did not conceal a violation or were de minimis emissions.

District staff also reviewed additional District compliance records for General Chemical for September 1, 1998 to April 30, 2011. During this period General Chemical activities known to the District include:

The District received eleven (11) air pollution complaints alleging General Chemical as the source: investigations into the complaints were unconfirmed.

REVIEW OF COMPLIANCE RECORD OF:

GENERAL CHEMICAL - SITE #A0023

May 25, 2011

Page 3 of 3

The District received one (1) notification for a Reportable Compliance Activity (RCA)¹ : one (1) breakdown request, four (4) indicated monitor excesses, zero (0) pressure relief device releases, and seven (7) in-operative monitor reports. Four (4) of the RCAs resulted in NOVs.

The District processed no dockets for a variance before the District's Hearing Board.

Conclusion

The Compliance and Enforcement Division has made a determination that for the review period General Chemical was in intermittent compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule or additional permit terms. The Division does not have any recommendations for any additional permit conditions and limitations to improve compliance beyond what is already contained in the Title V Permit under consideration.

¹ Reportable Compliance Activity (RCA), also known as "Episode" reporting, is the reporting of compliance activities involving a facility as outlined in District Regulations and State Law. Reporting covers breakdown requests, indicated monitor excesses, pressure relief device releases, and inoperative monitor reports.

² Reportable Compliance Activity (RCA), also known as "Episode" reporting, is the reporting of compliance activities involving a facility as outlined in District Regulations and State Law. Reporting covers breakdown requests, indicated monitor excesses, pressure relief device releases, and inoperative monitor reports.

BAAQMD Notices of Violation

General Chemical (Site# A0023)

September 1,1998 - April 30, 2011

TABLE 1

V#	S#	Occur	Issue	Reg	Violation Comments	Compliance Achieved	Basis for No Compliance Schedule
A03713	1	08/15/99	10/14/99	9-1-309	Exceed stack limit	08/15/99	This violation was corrected within 4 days by repairing the leaks.
A03639	15	05/01/01	05/17/01	1-301	SO2 release	05/01/01	This violation was corrected by shutting down the plant.
A11277	na	09/01/01	09/18/01	2-6-307	Inaccurate Title V Compliance Certification report	09/01/01	This administrative violation was corrected by submitting an amended report to the District.
A11283	na	11/29/01	12/03/01	1-301	SO3 release	11/29/01	This violation was corrected by shutting down the plant.
A12978	24	11/29/01	04/02/02	6-320	Excess SO3 emission	11/29/01	This violation was corrected by shutting down the plant.
A12979	24	11/29/01	04/02/02	12-6-301	Acid Mist >0.3 lbs / ton of acid produced	11/29/01	This violation was corrected by shutting down the plant.
A12981	24	11/29/01	04/03/02	40CFR 60.31d	Acid Mist >0.5 lbs / ton of acid produced	11/29/01	This violation was corrected by shutting down the plant.
A12980	na	01/16/02	04/02/02	2-6-307	Inaccurate Semi-Annual Monitoring Report	01/16/02	This administrative violation was corrected by submitting an amended report to the District.
A12988	1	04/02/02	08/26/02	1-522.9	Missing records on the SO2 continuous emission monitor (CEM)	04/17/02	This administrative violation was corrected when the CEM data were made available.
A45208	3	11/15/02	11/20/03	2-1-307	Failed to submit source test results to District	11/15/02	This administrative violation was corrected when the test results were submitted to the District.

BAAQMD Notices of Violation

General Chemical (Site# A0023)

September 1, 1998 - April 30, 2011

TABLE 1

V#	S#	Occur	Issue	Reg	Violation Comments	Compliance Achieved	Basis for No Compliance Schedule
A45201	1	01/28/03	05/02/03	2-6-307	Failure to submit annual source test results to the District	01/28/03	This administrative violation was corrected by submitting the test results to the District.
A45212	34	01/30/04	04/26/04	2-1-307	Failed source test for PM-10	01/30/04	This violation was corrected by modifying the permit condition.
A47620	na	06/23/06	11/02/06	1-301	SO2 / SO3 release	06/23/06	This violation was corrected by shutting down the plant.
A48628	1	04/05/07	06/04/07	9-1-309	SO2 Excess	04/05/07	This violation was corrected by shutting down the source.
A49500	1	01/19/10	04/20/10	9-1-309	SO2 Excess	01/19/10	This violation was corrected by shutting down the plant.

Permit Evaluation and Statement of Basis: Site #A0023, General Chemical Corporation, 525 Castro Street,
Richmond CA 94801

APPENDIX B

GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

Basis

The underlying authority which 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). Cumulative increase is 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, NO_x, 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
scfm	=	standard cubic feet per minute
yr	=	year