

ENGINEERING EVALUATION
Eco Services Operations Corp, Plant: 22789
100 Mococo Road, Martinez CA 94553
Application: 29467

BACKGROUND

Eco Services has applied for a Change of Conditions for the following existing source (S-58) and for an Authority to Construct/Permit to Operate for an abatement device at S-58:

Existing source description:

S-58 Sulfur Storage Tank T-18, 30,000 gallons

Revised source description:

S-58 Sulfur Storage Tank T-18, 30,000 gallons, abated by:
A-58 Wet Scrubber, 150 acfm maximum, custom

S-58 was originally issued an Authority to Construct under Application 27530. S-58 was originally a replacement for S-18 Sulfur Storage Tank T-12, which was permanently taken out of service in 2017. A source test of S-58 required under Condition #17734 Part 24a and conducted on September 20, 2017 showed that emissions exceeded the permitted emission limits. Specifically, the measured H₂S of 0.21 lbs/hour and calculated H₂S emission factor of 0.0093 lbs/long ton exceeded the respective limits of 0.09 lbs/hour and 0.0036 lbs/long ton in Condition #17734; and the measured SO₂ of 347.1 ppm exceeded the Regulation 9-1-302 (General Emission Limitation) standard of 300 ppm.

As required under NOV #A57598, a subsequent source test was conducted on October 23, 2018, which showed a measured H₂S rate of 0.13 lbs/hour and calculated H₂S emission factor of 0.0057 lbs/long ton; still exceeding the aforementioned limits. Since S-58 is in violation of permit condition requirements, the Permit to Operate for S-58 has not been issued. The changes requested under this Application 29467 are necessary in order to help bring S-58 into compliance.

The facility submitted Application 29467 to address this permit condition violation by requesting an increase in existing emission limits for S-58 under Permit Condition #17734. The facility also requested a throughput increase to accommodate throughput historically handled by S-50 Sulfur Storage Tank T-16, which has shifted to S-58. S-50 was a permitted tank (the only other tank capable of receiving sulfur from trucks) which was dismantled on August 22, 2017. Table 1 summarizes the existing and requested limits for S-58, as well as the 9/20/17 and 10/23/18 source results.

However, a Health Risk Assessment (HRA) based on the requested emission rate (conducted on April 10, 2019) determined that the project as proposed would exceed Regulation 2-5 thresholds. In order to meet the project risk requirements of Regulation 2-5 and the 300 ppm limit for SO₂ in Regulation 9-1, the facility has proposed to install a wet scrubber (A-58), which is expected to abate H₂S and SO₂ emissions to acceptable levels. According to the facility, emissions only occur during the filling of S-58 (which causes the displacement of the vapor space of the tank) and little to no emissions occur during withdrawal of material from S-58. As such, the facility requested a permit condition that requires A-58 to be operated only during loading operations at S-18, when there is displacement of the vapor space in the tank. This request to limit the operation of A-58 to only loading events at S-58 has been granted, but the facility will be required to meet the

same emissions limits for non-loading as for loading, and to perform source testing during both loading and non-loading events to corroborate the emissions limits. Additionally, the Air District will have the authority to administratively reduce the emissions limits for non-loading if a determination is made that the lower emissions can be achieved during non-loading.

Table 1. Existing and Requested Limits for S-58

	Reason for Emissions Limit changes	A-58 vendor-guaranteed outlet emissions (ppmv)		HRA conducted for request?	Throughput Limit (Existing and/or Proposed), long tons			Emissions (Existing and/or Proposed)			
		H ₂ S	SO ₂		(long tons/hour)	(long tons/day)	(long tons/yr)	H ₂ S (lbs/long ton)	H ₂ S (lbs/hour)	SO ₂ (lbs/long ton)	SO ₂ (lbs/hour)
Condition #17734 limit	N/A	N/A	N/A	N/A	25	500	104,000	0.0036	0.09	0.0044	0.11
9/20/17 source test (OS-7046)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0093	0.21	0.0008	0.02
10/23/18 source test (OS-7163)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0057	0.13	N/A	N/A
Requested Condition #17734 limit (original request in this application)	Exceedances of Cond #17734 H ₂ S limits and Regulation 9-1-302 SO ₂ limit during 9/20/17 source test and Cond #17734 H ₂ S limits during 10/23/18 source test	N/A	N/A	Yes; 1 st HRA (4/10/19)	46.428	500 (No change)	182,500	0.01245	0.578	0.0044 (no change requested)	0.204
Requested Condition #17734 limit (2 nd request in this application)	Results of 1 st HRA exceeded Regulation 2-5 thresholds; therefore, abatement device (A-58) proposed	125	N/A	Yes, 2 nd HRA (10/14/20)	46.428 (request by facility to delete limit denied)	500 (No change)	182,500	0.0028	0.07	0.0044 (No change requested)	0.11 (No change requested)
Requested Condition #17734 limit (3 rd request in this application)	Revised emissions calculations to avoid triggering SO ₂ offsets requirement per Regulation 2-2	86	38	Yes, 3 rd HRA (6/24/21)	82.25 (request by facility to delete limit denied)	500 (No change requested)	182,500 (request by facility to delete limit denied)	7.56 lbs/MMdscf	6.45E-02	6.29 lbs/MMdscf	5.36E-02

As part of the settlement of NOV #A57598, the facility and the Air District entered into a Compliance and Enforcement Agreement on April 29, 2020, which stipulates that the facility must install the scrubber (A-58) and perform a source test to demonstrate compliance by the completion deadlines as specified in the agreement. The Compliance Schedule will be incorporated into the upcoming Title V renewal permit for this facility under Application 28060.

Permit Condition #17734 also applies to other sources, including S-1 Sulfuric Acid Plant. Permit Condition #17734 Part 9 currently specifies a sulfuric acid production limit at S-1 of 629,062 tons in any consecutive 12-month period. However, Permit Condition #27262 Part 1 also specifies a sulfuric acid production limit on S-1 of 409,165 tons in any consecutive 365-day period. Permit Condition #27262 was issued under Application 29745 in August 2020 at that reduced throughput limit. To ensure consistency between these conditions, the production limit in Condition #17734 Part 9 will be deleted to avoid redundancy.

EMISSION CALCULATIONS

SO₂, POC, CH₄, and H₂S Emissions

Due to the lack of information (such as published literature and/or test results) available regarding emissions in molten sulfur tanks, Air District staff conducted a source test for SO₂, NMOC, and CH₄ at S-18 (the tank that S-58 originally replaced, as mentioned above) on June 23, 2016 as part of the review for Application 27530 to derive emission factors for S-58. This source test did not include H₂S because the Air District lab currently does not have the capability to perform the wet chemistry H₂S method. The test showed negligible concentrations of NMOC and CH₄ (< 1 ppmv). Therefore, POC and CH₄ emissions are expected to continue to be negligible for this project under Application 29467. For SO₂, the June 23, 2016 source test resulted in an emission factor of 0.00044 lbs SO₂/long ton of molten sulfur loaded. This was then multiplied by 10 to provide an adequate margin of compliance, resulting in an SO₂ emission factor of 0.0044 lbs SO₂/long ton that was used to estimate emissions for Application 27530 and as the basis for the emission limit in Permit Condition #17734.

However, since S-58 will be controlled by A-58 Wet Scrubber, the SO₂ emission factor and corresponding maximum SO₂ emissions will be estimated using the vendor-guaranteed outlet concentration of 38 ppmv SO₂ rather than the unabated activity-based SO₂ emission factor. The vendor provided a guaranteed outlet SO₂ concentration of 38 ppmv and H₂S concentration of 86 ppmv.

Since the emissions calculations below are now based on maximum concentrations and maximum flow rates rather than maximum throughputs, it is more appropriate to impose lbs/MMacf limits in lieu of the existing lbs/long ton limits in Part 13a. This will help address the facility's concerns regarding the enforceability of throughput-based emissions limits. The emissions limits are expressed on a wet basis (ppmv wet basis and lbs/MMacf) rather than dry basis because this was the basis used to establish the vendor-guaranteed concentration levels shown below. The vendor does not have the stack moisture data used to establish the moisture content. Additionally, Air District source test staff confirmed that there are difficulties in obtaining moisture content data during source tests.

Maximum annual molten sulfur throughput = 182,500 long tons/yr

Maximum daily molten sulfur throughput = 500 long tons/day
Maximum hourly molten sulfur throughput = 82.25 long tons/hour
Minimum hourly molten sulfur throughput = 23.2 long tons/hour

The estimated maximum SO₂ emissions are as follows:

Maximum SO₂ stack concentration = 38 ppmv (vendor guarantee, wet basis)

Maximum A-58 Wet Scrubber flow rate = 150 acfm (142 dscfm)

Molar specific Volume of gas at 70F and 14.7 psia = 386.9 scf/lbmol

Maximum hourly SO₂ emissions

= (Stack flow, ppm/10⁶)(MW SO₂, lbs/lbs-mol)(lbs-mol/386.9 dscf)(Flow rate, dscfm)(60 min/hour)

= (38 ppmv/10⁶)(64 lbs/lbs-mol)(lbs-mol/386.9 dscf)(142 dscfm)(60 min/hour) = **0.0536 lbs/hour**

Maximum annual SO₂ emissions = (5.36E-02 lbs SO₂/hour)(8760 hr/year) = **469.18 lbs/year**

Maximum daily SO₂ emissions = (5.36E-02 lbs SO₂/hour)(24 hr/day) = **1.29 lbs/highest day**

SO₂ emission factor

= (Maximum hourly SO₂ emissions, lbs/hour) / [(Flow rate, acfm)(60 min/hour)]

= (5.36E-02 lbs/hour) / (150 acfm * 60 min/hr) = 5.96E-06 lbs/acf = **5.96 lbs SO₂/MMacf**

The estimated maximum H₂S emissions are as follows:

Maximum H₂S stack concentration = 86 ppmv (vendor guarantee, wet basis)

Maximum A-58 Wet Scrubber flow rate = 150 acfm (142 dscfm)

Molar Specific Volume of gas at 70F and 14.7 psia = 386.9 scf/lbmol

Maximum hourly H₂S emissions

= (Stack flow, ppm/10⁶)(MW H₂S, lbs/lbs-mol)(lbs-mol/386.9 dscf)(Flow rate, dscfm)(60 min/hour)

= (86 ppmv/10⁶)(34 lbs/lbs-mol)(lbs-mol/386.9 acf)(142 dscfm)(60 min/hour) = **0.0644 lbs/hour**

Maximum annual H₂S emissions = (6.44E-02 lbs H₂S/hour)(8760 hr/yr) = **564.14 lbs/year**

Maximum daily H₂S emissions = (6.44E-02 lbs H₂S/hour)(24 hr/day) = **1.55 lbs/highest day**

H₂S emission factor

= (Maximum hourly H₂S emissions, lbs/hour) / [(Flow rate, acfm)(60 min/hour)]

= (6.44E-02 lbs/hour) / (150 acfm * 60 min/hr) = 7.16E-06 lbs/acf = **7.16 lbs H₂S/MMacf**

The facility will be required via permit conditions to conduct periodic source testing at the stack of A-58 during both loading and non-loading (immediately after loading) events to demonstrate compliance with the aforementioned H₂S and SO₂ emission factor and concentration limits.

Fugitive Emissions

Based on the source test results shown above, fugitive emissions of SO₂, POC, and CH₄ are assumed to be negligible. Fugitive emissions of H₂S are based on fugitive component emission factors for an SRU at a Chevron refinery. These emission factors were originally developed by the Air District for the Chevron renewal project. However, these fugitive emission factors based on the assumption that H₂S comprises 4.63% (wt.) of rich diethanolamine (DEA), while the MSDS for molten sulfur shows that H₂S comprises only 1% (wt.) of molten sulfur. Therefore, to obtain conservative H₂S emissions estimates for S-58, it is assumed that the fugitive H₂S emission factors for S-58 are equivalent to the fugitive H₂S

emission factors for rich DEA for the Chevron SRU. The fugitive H₂S emissions estimates are as follows:

Table 2. Fugitive H₂S emissions estimates

	Rich DEA	Emission Factor @25 ppm H ₂ S lbs/day/source	RDEA Emissions lbs/year
Valves	10	0.0013	4.745
PSVs	0	0.01245	0
Pump Seals	2		
Flanges	36	0.0023	30.222
Connectors	0	0.0009	0
Nozzles	13		
Total (lbs/yr)			34.967
Total (lbs/day)			0.096
Total (lbs/hour)			3.992E-3

Summary of Total Post-Project Emissions

Maximum annual H₂S emissions = 564 lbs/year + 34.97 lbs/year = **599 lbs/year**
 Maximum daily H₂S emissions = 1.55 lbs/day + 0.096 lbs/day = **1.65 lbs/day**
 Maximum hourly H₂S emissions = 6.44E-02 lbs/hour + 3.992E-03 lbs/hour = **6.84E-02 lbs/hour**

Maximum annual SO₂ emissions = 469.18 lbs/yr = **0.235 tons/year**
 Maximum daily SO₂ emissions = **1.29 lbs/highest day**
 Maximum hourly SO₂ emissions = **5.36E-02 lbs/hour**

Criteria Pollutant Emission Increase

The actual post-project emission increase is the difference between the post-project emissions and the pre-project baseline emissions. Per Regulation 2-2-603, the baseline emission level is the annual average emissions based on the previous 36 months of operation for each source. The baseline POC emissions calculations are shown below. The SO₂ emission factor of 0.0008 lbs/long ton is the calculated emission factor from the October 23, 2018 source test.

Total 36-month throughput (10/1/17-10/1/20) = 177,068.67 long tons
 Pre-project Baseline throughput = 177,068.67/3 = 59,022.89 long tons/yr

Pre-project Baseline SO₂ emissions = (0.0008 lbs SO₂/long ton)(59,022.89 long tons/yr)
 = 47.22 lbs/yr

SO₂ emissions increase = 469.18 – 47.22 = 421.96 lbs/yr = **0.211 tons/year**

BACT REVIEW AND DETERMINATION

In accordance with Regulation 2, Rule 2, Section 301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NOx, CO, SO₂ or PM₁₀.

Daily emissions are calculated to establish whether a source triggers the requirement for BACT. Based on the information above, BACT is not triggered for S-58.

PLANT CUMULATIVE INCREASE AND OFFSETS

Eco Services has requested to receive onsite contemporaneous emission reduction credits (CERC's) for the shutdown of S-50 Sulfur Storage Tank T-16. This application was deemed complete on December 23, 2020. Therefore, in accordance with Regulation 2-2-206, this facility qualifies for CERC's since the shutdown occurred within 5 years immediately prior to the date of a complete application for an Authority to Construct or Permit to Operate. CERC's are calculated as the average annual emissions from the shutdown equipment from actual throughput and usage of the three years (September 2014 through August 22, 2017) prior to the date in which the emission reduction became enforceable per Regulations 2-2-603 and 2-2-605, which is the date in which S-50 was dismantled (August 22, 2017). The onsite CERC's are used to offset the emission increases from this facility as shown below at a ratio of 1:1. The onsite CERC's are calculated as follows. In the absence of emissions data for S-50, it is assumed that the SO₂ emission factor for S-50 is equivalent to that of S-58. Therefore, the aforementioned calculated SO₂ emission factor of 0.0008 lbs/long ton from the October 23, 2018 source test will be used for the calculations below.

Total 36-Month Throughput (9/2014 through 8/22/2017) = 126,734.49 long tons
 Baseline annual throughput = 126,734.49/3 = 42,244.83 long tons/yr

The sulfur throughput data for S-50 used to derive the baseline annual throughput have been reviewed and verified to ensure the throughput limit of 324,000 long tons/yr as per Condition #17734 Part 9 was met during the three-year baseline period. Therefore, the baseline throughput does not need to be adjusted downward.

SO₂ CERC's = (0.0008 lbs SO₂/long ton)(42,244.83 long tons/yr) = 33.8 lbs/yr = **0.017 tons/year**

The table below summarizes the total Cumulative Increase for this facility prior to accounting for CERC's.

Table 3. Cumulative Increase				
Pollutant	Increase in plant emissions prior to April 5, 1991* (tons/year)	Increase in plant emissions since April 5, 1991 (tons/year)	Increase in plant emissions associated with this application prior to accounting for CERC's (tons/year)	Cumulative increase in emissions (Post 4/5/91 + Current application increase) (tons/year)
SO ₂	7.318	0.741	0.211	0.952

* This plant was formerly Rhone-Poulenc Inc. (Plant #20) prior to 12/9/97, and the pre-4/5/91 emissions shown above are associated with the old plant.

Therefore, accounting for CERC's, the net SO₂ emissions increase is calculated as follows:

$$\text{Net SO}_2 \text{ emissions increase} = 0.211 \text{ tons/year} - 0.017 \text{ tons/year} = \mathbf{0.194 \text{ tons/year}}$$

The table below summarizes the total Cumulative Increase for this facility after accounting for CERC's.

The table below summarizes the total Cumulative Increase for this facility.

Table 4. Cumulative Increase				
Pollutant	Increase in plant emissions prior to April 5, 1991* (tons/year)	Increase in plant emissions since April 5, 1991 (tons/year)	Increase in plant emissions associated with this application (tons/year)	Cumulative increase in emissions (Post 4/5/91 + Current application increase) (tons/year)
SO ₂	7.318	0.741	0.194	0.935

* This plant was formerly Rhone-Poulenc Inc. (Plant #20) prior to 12/9/97, and the pre-4/5/91 emissions shown above are associated with the old plant.

Per Regulation 2-2-303.1, offsets must be provided for any new or modified source at facilities with a facility-wide potential to emit more than 100 tons/year of SO₂ and an un-offset cumulative increase exceeding 1.0 tons/year. The un-offset SO₂ cumulative increase is the sum of the project cumulative increase and the un-offset cumulative increase from previously issued permits after April 5, 1991, as per Regulations 2-2-608 and 2-2-209. The facility-wide potential to emit SO₂ at this facility exceeds 100 tons/year and this project results in the cumulative increase remaining below 1.0 tons/year; therefore, SO₂ offsets are not required for this project at this time.

STATEMENT OF COMPLIANCE

TOXICS NSR/TBACT

As shown above, the maximum annual and hourly H₂S emissions will be 599 lbs/year and 6.84E-02 lbs/hour, respectively. The thresholds for H₂S in Table 2-5-1 of Regulation 2-5 are 390 lbs/yr and 0.093 lbs/hour. The maximum H₂S emissions in this project exceeds TAC thresholds in Table 2-5-1 of Regulation 2-5.

An initial HRA, based on an uncontrolled emissions rate, conducted on April 10, 2019 found that the risk levels (the maximum chronic hazard index was 0.021 and the maximum acute hazard index was 4.5) were not acceptable per Regulation 2-5-302.

Based on the controlled emission rate, a revised HRA conducted on October 14, 2020 found that the risk levels (the maximum chronic hazard index was 0.0095 and the maximum acute hazard index was 0.93) were acceptable per Regulation 2-5-302 with the addition of the proposed A-58.

Based on the revised vendor-guaranteed outlet H₂S concentration and change in methodology for calculating emissions, a revised HRA conducted on June 24, 2021, found that the risk levels (the maximum chronic hazard index was 0.01 and the maximum acute

hazard index was 0.48) were acceptable per Regulation 2-5-302 and that S-58 will not trigger the requirement for TBACT.

In a September 14, 2021 email, the facility requested an additional increase in the flange count limit in Permit Condition #17734 Part 13b. Per guidance from the Air District's Toxics staff, the previous HRA results can be prorated linearly. The revised risk levels are:

Maximum chronic hazard index = $(0.01) (599 \text{ lbs/year}) / (594.26 \text{ lbs/year}) = 0.01$ in a million
Maximum acute hazard index = $(0.48) (6.84\text{e-}02 \text{ lbs/hour}) / (6.78\text{E-}02 \text{ lbs/hour}) = 0.484$ in a million

The revised risk levels are still acceptable per Regulation 2-5-302 and that S-58 will not trigger the requirement for TBACT since the proposed abatement will reduce emissions below the TBACT thresholds.

DISTRICT RULES

S-58 is subject to the SO₂ limitations of Regulation 9-1-301 (Limitations on Ground Level Concentrations) and Regulation 9-1-309 (Emission Limitations for Sulfuric Acid Plants). From Regulation 9-1-301, the ground level concentrations of SO₂ shall not exceed 0.5 ppm continuously for 3 consecutive minutes or 0.25 ppm averaged over 60 consecutive minutes, or 0.05 ppm averaged over 24 hours. Per Regulation 9-1-309, a person shall not emit from any source in a sulfuric acid plant a gas stream containing sulfur dioxide in excess of 300 ppmv @ 12% O₂. S-58 is expected to comply with the 300 ppmv limit in Regulation 9-1-302 since the vendor of the wet scrubber A-58 guarantees that the SO₂ outlet concentration will be below 300 ppm. S-58 is subject to and is expected to comply with the H₂S limitations of Regulation 9-2-301 (Limitations on Hydrogen Sulfide). From Regulation 9-2-301, the ground level concentrations of H₂S during any 24 hour period shall not exceed 0.06 ppm averaged over three consecutive minutes or 0.03 ppm averaged over 60 consecutive minutes.

The fugitive components associated with S-58 are not subject to Regulation 8-18 because S-58 emits only inorganics. Fugitive organic emissions are expected to be even less than the organic emissions from the process at S-58, which are already negligible.

FEDERAL RULES

PSD and NESHAPS are not triggered.

CEQA

The Air District has determined that this permit action is exempt from CEQA (i) because the permitting of the project involved has no or negligible expansion of use beyond that existing at the time of the Air District's CEQA determination (CEQA § 21084; Guidelines § 15301; Air District Regulation 2-1-312.6); (ii) because the abatement device is categorically exempt from CEQA per CEQA Guidelines §§ 15061(b)(3) and 15308, "Action to Protect the Environment" and Air District Regulation 2-1-312.2, "Permit applications to install air pollution control or abatement equipment."; and (iii) because the permit action is also categorically exempt from CEQA per CEQA Guidelines §§ 15061(b)(3), the "Common Sense" exemption.

Basis for Exemption:

Approval of Application 29467 is not subject to CEQA because the Air District has determined that the project does not expand existing use (CEQA Guidelines § 15301). Issuance of this Authority to Construct does not authorize any expansion of the existing use of the sources at this facility since the aforementioned changes will not increase the footprint of any existing equipment. Therefore, this permit action is subject to the “Class 1” exemption (Guidelines § 15301). In addition, the air pollution abatement equipment of this project is subject to the “Addition of safety or health protection devices for use during construction of or in conjunction with existing structures, facilities, or mechanical equipment...” exemption (Guidelines § 15301f). Finally, the applicant has included in its permit application CEQA-related information (CEQA Appendix H) that demonstrates that the project has no potential for resulting in any significant environmental impacts beyond what is already entailed in the applicant’s existing use of the facility.

PUBLIC NOTICES

This project is over 1,000 ft from the nearest public school. However, since this project is located within an Overburdened Community and triggers the requirements of HRA, it is therefore subject to the public notification requirements of Regulation 2-1-412.

TITLE V STATEMENT OF BASIS (SOB)

This facility is a Major Facility with a Title V permit. The changes to this Title V permit to incorporate this Change of Condition application are included in Appendix A of this evaluation report.

PERMIT CONDITIONS (#17734)

See Appendix B

RECOMMENDATION

The Air District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of Air District, state, and federal air quality-related regulations. The preliminary recommendation is to issue an Authority to Construct to Eco Services Operations Corp. However, the proposed source is located within an Overburdened Community and a Health Risk Assessment is required for this project, which triggers the public notification requirements of Air District Regulation 2-1-412. After the comments are received and taken into consideration, the Air District will make a final determination on the permit.

I recommend that the Air District initiate a public notice and consider any comments received prior to taking any final action on issuance of an Authority to Construct for the following abatement device:

A-58 Wet Scrubber, 150 acfm maximum, custom

and issue a Permit to Operate a Modified Source for:

S-58 Sulfur Storage Tank T-18, 30,000 gallons, abated by:

A-58 Wet Scrubber, 150 acfm maximum, custom

By: E-signed by Jimmy Cheng Date: 2/14/23
Jimmy Cheng, Senior Air Quality Engineer

APPENDIX A

The proposed changes to the tables in Section IV and permit conditions in Section VI of the Title V permit are provided below. For conditions, please refer to the Permit Condition Section of the Evaluation Report for Application # 29467.

Table II:

Table II B – Abatement Devices					
A#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
A-58	Wet Scrubber	S-58	BAAQMD Condition 17734, part 16		Requirement for control
A-58	Wet Scrubber	S-58	BAAQMD Condition 17734, part 17c	The pH shall not be less than 6 at each of the two stages.	pH > 6

Table IV:

**Table IV-D
Source-specific Applicable Requirements
S-16 Sulfur Storage Tank, T-2
S-17 Sulfur Storage Tank, T-14
S-58 Sulfur Storage Tank, T-18**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition #17734			
Part 5a	Daily and hourly sulfur throughput limit for S-58 (basis: cumulative increase and Regulation 2-5)	Y	
Part 9	(Deleted (Redundant with Condition 27262 Part 1) (previously: “Annual sulfuric acid production limit (basis: cumulative increase and BAAQMD Regulation 2-1-234.3)”)	N/A	
Part 10a	Annual sulfur throughput limit for S-58 (basis: cumulative increase and Regulation 2-5)	Y	
Part 13a	H2S and SO2 emissions limits for S-58 (basis: cumulative increase and Regulation 2-5)	Y	
Part 13b	Fugitive component count limits for S-58 (basis: cumulative increase and Regulation 2-5)	Y	
Part 13c	Flow rate limit for A-58 (basis: cumulative increase)	Y	
Part 15	Record Retention Requirement (basis: cumulative increase and Regulation 2-6-501)	Y	

Table IV-D
Source-specific Applicable Requirements
S-16 Sulfur Storage Tank, T-2
S-17 Sulfur Storage Tank, T-14
S-58 Sulfur Storage Tank, T-18

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
Part 16	Control of S-19, S-20, and S-58 (basis: cumulative increase and Regulation 2-5)	<u>Y</u>	
Part 17b	Properly maintain and keep in good operating condition A-11. pH of scrubbing liquid requirement. (basis: cumulative increase)	<u>Y</u>	
Part 17c	Properly maintain and keep in good operating condition A-58. pH of scrubbing liquid requirement. (basis: cumulative increase)	<u>Y</u>	
Part 22	Source Test Requirements (basis: 2-6-409.2, 2-6-503)	<u>Y</u>	
Part 24	Recordkeeping for pH monitoring (basis: 2-6-503)	<u>Y</u>	
Part 24a	Source Test Requirements for S-58 during loading operations (basis: cumulative increase and Regulation 2-5)	<u>Y</u>	
Part 24b	Source Test Requirements for S-58 during non-loading operations (basis: cumulative increase and Regulation 2-5)	<u>Y</u>	

Section VI. Permit Conditions:

The changes to the permit conditions are shown in the "Permit Conditions" section above.

Table VII:

Table VII-D
Applicable Limits and Compliance Monitoring Requirements
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~~
S-58 Sulfur Storage Tank, T-18

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Through-put Limits	BAAQMD Condition #17734, Part 5a	Y		82.25 long tons of sulfur per hour at S-58	BAAQMD Condition #17734, part 15	P/H	hourly records
	BAAQMD Condition #17734, Part 5a	Y		500 long tons of sulfur per day at S-58	BAAQMD Condition #17734, part 15	P/D	Daily records

Through-put Limits	BAAQMD Condition #17734, Part 5	Y		888 long tons of sulfur per day at S-16, S-17, S-18, and S-50 and S-58	BAAQMD Condition #17734, part 15	P/M	monthly records
	BAAQMD Condition #17734, Part 10	Y		324,000 long tons of sulfur per year at S-16, S-17, S-18, and S-50 and S-58	BAAQMD Condition #17734, part 15	P/M	monthly records
	BAAQMD Condition #17734, Part 10a	Y		182,500 long tons of sulfur per year at S-58	BAAQMD Condition #17734, part 15	P/M	monthly records
H2S	BAAQMD Condition #17734, Part 13a	Y		86 ppmv wet basis (7.16 lb per MMacf) and 6.45E-02 lb/hour at A-58 for loading operations	BAAQMD Condition #17734, part 24a	P/M	Source Test
	BAAQMD Condition #17734, Part 13a	Y		86 ppmv wet basis (7.16 lb per MMacf) and 6.45E-02 lb/hour at S-58 for non-loading operations	BAAQMD Condition #17734, part 24b	P/M	Source Test
SO2	BAAQMD Condition #17734, Part 13a	Y		38 ppmv wet basis (5.96 lb per MMacf) and 5.36E-02 lb/hour at A-58 for loading operations	BAAQMD Condition #17734, part 24a	P	Source Test
	BAAQMD Condition #17734, Part 13a	Y		38 ppmv wet basis (5.96 lb per MMacf) and 5.36E-02 lb/hour at S-58 for non-loading operations	BAAQMD Condition #17734, part 24b	P	Source Test
Stack flow rate	BAAQMD Condition #17734, Part 13c	Y		150 acfm at A-58	BAAQMD Condition #17734, part 13c	C	Blower motor run time meter
Scrubbing Liquid pH	BAAQMD Condition #17734, part 17c	Y		pH at least 6	BAAQMD Condition #17734, part 24	P/D	Scrubbing liquid sampling and pH testing

APPENDIX B

PERMIT CONDITIONS (#17734)

Condition #17734 For:

S-1 Sulfuric Acid Plant, abated by A-11 Ammonia Scrubber
S-2 Auxiliary Boiler
S-3 Natural Gas Preheater Furnace
S-16 Sulfur Storage Tank, T-2
S-17 Sulfur Storage Tank, T-14
~~S-58 Sulfur Storage Tank, T-18~~
S-19 Alky Tank, T-1, abated by S-1 Sulfuric Acid Plant OR A-2 Packed Bed Scrubber and A-5 Flare (when S-1 is not in operation)
S-20 Alky Tank, T-3, abated by S-1 Sulfuric Acid Plant OR A-2 Packed Bed Scrubber and A-5 Flare (when S-1 is not in operation)
~~S-50 Sulfur Storage Tank, T-16~~
S-58 Sulfur Storage Tank, T-18, abated by A-58 Wet Scrubber
A-2 Packed Bed Scrubber
A-5 Flare
A-58 Wet Scrubber

Fuel Usage Conditions:

1. The owner/operator shall ensure that S-2 and S-3 burn only natural gas. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
2. The owner/operator shall ensure that the combined natural gas usage at S-2 and S-3 does not exceed 978,200,000 standard cubic feet during any consecutive 12-month period. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
3. The owner/operator shall ensure that the combined monthly average natural gas usage at S-2 and S-3 does not exceed 2,700,000 standard cubic feet per calendar day. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)

Daily Material Throughput Conditions:

4. The owner/operator shall ensure that the monthly average production of sulfuric acid at S-1 does not exceed 1834 tons per calendar day. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
5. The owner/operator shall ensure that the combined monthly average throughput of sulfur at S-16, S-17, ~~S-50~~, and S-58 does not exceed 888 long tons per calendar day. Note: A long ton equals 2240 pounds. (Basis: cumulative

increase and BAAQMD Regulation 2-1-234)

- 5a. The owner/operator shall ensure that the maximum daily throughput of sulfur at S-58 does not exceed 500 long tons in a single calendar day. The owner/operator shall ensure that the maximum hourly throughput of sulfur at S-58 does not exceed ~~82.2525~~ long tons in a single hour. Note: A long ton equals 2240 pounds. (Basis: cumulative increase, Regulation 2-5)
6. The owner/operator shall ensure that the monthly average throughput of alkylation acid at S-19 does not exceed 960 tons per calendar day. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
7. The owner/operator shall ensure that the monthly average throughput of alkylation acid at S-20 does not exceed 960 tons per calendar day. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
8. (Deleted; S-38 removed from service)

Annual Material Throughput Conditions:

9. ~~The owner/operator shall ensure that the production of sulfuric acid at S-1 does not exceed 629,062 tons in any consecutive 12-month period. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)~~ Deleted (redundant with Condition 27262, Part 1)

10. The owner/operator shall ensure that the combined throughput of sulfur at S-16, S-17, ~~S-58~~, and S-58 does not exceed 324,000 long tons in any consecutive 12-month period. Note: A long ton equals 2240 pounds. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
- 10a. The owner/operator shall ensure that the throughput of sulfur at S-58 does not exceed ~~104,000~~ 182,500 long tons in any consecutive 12-month period. Note: A long ton equals 2240 pounds. (Basis: cumulative increase, Regulation 2-5)
11. The owner/operator shall ensure that the throughput of alkylation acid at S-19 does not exceed 267,351 tons in any consecutive 12-month period. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)
12. The owner/operator shall ensure that the throughput of alkylation acid at S-20 does

not exceed 267,351 tons in any consecutive 12-month period. (Basis: cumulative increase and BAAQMD Regulation 2-1-234)

13. (Deleted; S-38 removed from service)

13a. At all times of operation of S-58, the owner/operator shall not exceed any of the following emissions limits ~~at the vent of S-58. The District Air District~~

~~may~~

~~administratively reduce the following emissions limits if the results of source test(s) required under Part 24a demonstrate that lower emissions rates are achievable.~~

~~0.0036 lb H₂S/long ton of sulfur loaded and/or 0.09 lb of H₂S in any hour~~

~~0.0044 lb SO₂/long ton of sulfur Loaded and/or 0.11 lb of SO₂ in any hour~~

~~there is no detectable flow outlet of S-58/there is no detectable flow outlet of S-58/~~

During loading events:

H₂S: 86 ppmv wet basis (7.16 lbs/MMacf) at the vent of A-58
6.45E-02 lbs in any hour at the vent of A-58

SO₂: 38 ppmv wet basis (5.96 lbs/MMacf) at the vent of A-58
5.36E-02 lbs in any hour at the vent of A-58

During non-loading events:

H₂S: 86 ppmv wet basis (7.16 lbs/MMacf*) at the vent of S-58
6.45E-02 lbs in any hour at the vent of S-58

SO₂: 38 ppmv wet basis (5.96 lbs/MMacf*) at the vent of S-58
5.36E-02 lbs in any hour at the vent of S-58

*Note that the lbs/MMacf limits will not apply for non-loading events during periods of no flow from the vent of S-58.

~~H₂S: there is no detectable flow at the outlet of S-58/inlet of A-58~~

~~SO₂: there is no detectable flow at the outlet of S-58/inlet of A-58~~

The listed concentration limits (ppmv) may be administratively reassessed and adjusted by the Air District for non-loading events based on source test data. In no event shall the listed mass emission rates (lb/hr) be exceeded during non-loading events.

(Basis: cumulative increase, Regulation 2-5)

13b. The owner/operator shall not exceed the following fugitive component counts associated with S-58:

107 valves

2 pump seals
~~3614~~ flanges

(Basis: Cumulative Increase, Regulation 2-5)

13c. At all times of operation of A-58, the owner/operator shall not exceed a stack flow rate of ~~142 dscfm~~ 150 acfm at A-58. The owner/operator shall equip A-58 with a properly maintained and properly calibrated per manufacturer's specifications, ~~flow~~ meter to continuously measure ~~stack flow rate~~ blower motor run time at A-58. The owner/operator of A-58 shall use the annual source test data to establish the relationship between motor run time and maximum wet flow rate (acfm). (Basis: Cumulative Increase)

Recordkeeping Conditions:

14. The owner/operator shall maintain monthly records of all fuel usage at S-2 in an ~~District~~Air District-approved log. These records shall be kept on site for a minimum of five years from the date of entry and shall be made available to ~~District~~Air District personnel upon request. (Basis: cumulative increase, BAAQMD Regulation 2-6-501)

15. The owner/operator shall maintain monthly records of material throughputs at ~~S-1~~, S-16, S-17, S-19, S-20, ~~S-50~~, and S-58 in an ~~District~~Air District-approved log. The owner/operator shall maintain hourly and daily records of material throughputs at S-58 in a ~~District~~Air District-approved log.

These

records shall be retained on-site for a minimum of five years from the date of entry and made available to ~~District~~Air District personnel upon request.

(Basis:

cumulative increase, BAAQMD Regulation 2-6-501)

Flare, Packed Bed Scrubber, ~~and~~ Venturi Scrubber, and Wet Scrubber
Conditions:

16. The owner/operator shall ensure that organic and sulfuric acid emissions from S-19 and S-20 are controlled by S1, Sulfuric Acid Plant. The owner/operator shall ensure that organic emissions from S-19 and S-20 are controlled by A-2, packed bed scrubber, and A-5, flare, during all periods that S1 is not operating. The owner/operator shall ensure that S-58 is controlled at all times by a properly maintained and properly operated (per manufacturer's specifications) A-58 Wet Scrubber ~~when~~ during loading operations at S-58.

[basis: cumulative increase, BAAQMD Regulation 2-5]

17a. The owner/operator shall ensure that Packed bed scrubber, A-2, and Flare, A-5, are

properly maintained and kept in good operating condition when in operation. In no event shall the pH of the scrubbing liquid of A-2 be less than 5 nor greater than 14, when S-19 and/or S-20 are vented to the scrubber.

- 17b. The owner/operator shall ensure that Ammonia scrubber, A-11 is properly maintained and kept in good operating condition at all times. In no event shall the pH of the scrubbing liquid of A-11 be less than 3.5 nor greater than 14, when S-1 is in operation.
[basis: cumulative increase]

17c. The owner/operator shall ensure that Wet Scrubber, A-58 is properly maintained and kept in good operating condition within the manufacturer's design specifications at all times of operation. In no event shall the pH of the scrubbing liquid at each of the two stages of A-58 be less than 6 when A-58 is in operation.
[basis: cumulative increase]

18. The owner/operator of A-5, flare, shall check the flare for visible emissions at least once each time that the flare is operated. If any visible emissions are detected, the owner/operator shall take corrective action, and check for visible emissions during the next time the flare is operated. If no visible emissions are detected, the owner/operator shall continue to check for visible emissions at least once each time the flare is operated. (basis: Regulation 2-6-503)
19. Whenever organic gases are routed to A-5, flare, the owner/operator shall ensure that the flare flame is lit. The owner/operator of A-5 shall maintain an alarm system that will immediately signal to the operator any flare flame failure. Upon the detection of a flame failure, the owner/operator shall take corrective action, prior to resuming the routing of organic gases to the flare.
(basis: Regulation 2-6-503)
20. The owner/operator shall keep records of all visible emissions checks, the person performing the check, all flare flame failures, and all corrective actions taken on A-5, flare. The records shall be retained for five (5) years and shall be made

available to DistrictAir District staff upon request.
(basis: Regulation 2-6-503)

21. To determine compliance, the owner/operator of this source shall maintain the following data ~~on a daily basis~~:
- a. Operating times of S-19 and S-20 on a daily basis.
 - b. ~~Stack flow rates (dry basis)~~ Blower operating hours at A-58 on a daily basis.
 - ~~c. Additionally, r~~ Records of Manufacturer's specifications for the A-58 scrubber and flow ~~blower operating hour meter at A-58 and =~~
 - ~~c. S~~ source test results shall be maintained.
- Records shall be available for DistrictAir District inspection for a period of at least five years following the date on which such data or reports are recorded or made.
[basis: cumulative increase]

Source Test Conditions

22. In order to demonstrate compliance with BAAQMD Regulation 6-1-310, 6-1-311, 6-1-320, BAAQMD Regulation 12-6-301, Acid Mist, and the standard in 40 CFR 60.31d of sulfuric acid manufacturing plant, S-1, the owner/operator shall perform an annual source test at the exhaust from A-11. The owner/operator shall obtain approval for all test procedures from the DistrictAir District's Source Test Section at least 7 days before conducting any tests. The results of this annual source test shall be submitted to the DistrictAir District within 30 days of conducting the test. The source test data and the summarized results shall be kept on site for at least five years after the test date.
(basis: BAAQMD Regulation 2-6-409.2, 2-6-503)
23. In order to demonstrate compliance with BAAQMD Regulation 9-7, the owner/operator shall perform a NOx and CO source test of Source 2, auxiliary boiler, at least every 5 years. The owner/operator shall obtain approval for all test procedures from the DistrictAir District's Source Test Section at least 7 days before conducting any tests. The results of this ~~annual~~ source test shall be submitted to the DistrictAir District within 30 days of conducting the test. The source test data and the summarized results shall be kept on site for at least five years after the test date. (basis: BAAQMD Regulation 2-6-409.2,

2-6-503)

24. In order to demonstrate compliance with part 17 of this condition, the owner/operator shall record the pH of scrubbers A-2, ~~and~~ A-11, and A-58 on a daily basis when each scrubber is operating. The pH data shall be kept on site for at least five years after the date that a record is made. (basis: BAAQMD Regulation 2-6-503)

24a. Within 90 days of ~~issuance of startup of A-58~~the Authority to Construct under Application 27530 and ~~annually every 5 years~~ thereafter, the owner/operator shall conduct an DistrictAir District- approved source test of H2S and an DistrictAir District- approved source test of SO2 at the vent of ~~A-58~~ to demonstrate compliance with the loading event emissions limits contained in Part 13a. ~~If the Air District-approved results of any three consecutive source tests for loading events demonstrate that both measured H2S and SO2 emissions are less than 50% of the respective emissions limits for loading events in Part 13a for each of these source tests, the owner/operator may request that the Air District administratively revise this condition to reduce the frequency of source testing, conduct testing once every two years until such time that a test shows that either measured H2S or SO2 emissions exceeds 50% of the respective emission limits, at which point testing will revert back to annually as described above.~~ The source test protocol shall be subject to DistrictAir District- for review ~~and approval~~ and shall be submitted to the DistrictAir District source test section at least 7 days prior to the scheduled source test date. The source test results shall be submitted to the DistrictAir District source test section and to the DistrictAir District Engineering Division within 30 days of the source test date. The source test data and the summarized results shall be kept on site for at least five years after the test date.

In the event that loading stops/ceases during a source test run, please the owner/operator shall record the time that the loading event ceased and shall continue to measure and record the emissions at the vent of A-58 during the remainder of the given source test run. This portion of emissions in which non-loading occurs during the given source test run shall not be included in the measured emissions for loading events for the purpose of demonstrating compliance with the loading event emissions limits in Part 13a.

(Basis: cumulative increase, Regulation 2-5)

24b. Within 90 days of ~~issuance of~~ startup of A-58

~~and annually~~ then coinciding with the testing frequency for loading event emissions limits described above thereafter, the owner/operator shall conduct an Air District-approved source test of H₂S, SO₂, and the vent~~stack~~ flow rate H₂S and an Air District-approved source test of SO₂ at the vent of SA-58 immediately after loading events to demonstrate compliance with the non-loading event limits contained in Part 13a. If the results of any source test demonstrates that the measured~~S-58 vent flow rates~~ H₂S emissions, and/or SO₂ emissions exceed the ~~respective emissions~~ corresponding limits~~s~~ for non-loading events in Part 13a, the Air District may administratively revise Part 16 to require abatement of S-58 by A-58 at all times of operation of S-58. The source test protocol shall be subject to Air District review~~and approval~~ and shall be submitted to the Air District source test section at least 7 days prior to the scheduled source test date. The source test results shall be submitted to the Air District source test section and to the Air District Engineering Division within 30 days of the source test date. The source test data and the summarized results shall be kept on site for at least five years after the test date. (Basis: cumulative increase, Regulation 2-5).

25. As of July 1, 2007, the sulfuric acid plant is considered an "affected facility" under NSPS (40 CFR Part 60) Subparts A and H and the owner/operator shall comply with all applicable requirements under NSPS Subparts A and H as well as the EPA-approved Alternative Monitoring Plans (AMPs). For the period before July 24, 2007, the owner/operator is not required to comply with the initial notification and compliance demonstration requirements of NSPS Subparts A and H. (Basis: Regulation 2-1-403; 40 CFR Part 60, Subparts A and H))
26. By July 1, 2008, the owner/operator shall ensure that emissions of sulfur dioxide does not exceed a "long-term limit" of 2.20 lbs per ton of 100% sulfuric acid produced (averaged over all operating hours in a rolling 365-day period including during periods of startup, shutdown, or malfunction). By July 1, 2007, the owner/operator shall ensure that emissions of sulfur dioxide does not exceed a "short-term limit" of 3.00 lbs per ton of 100% sulfuric acid produced (averaged over each rolling 3-hour period), except during periods of startup, shutdown and malfunction. "100% sulfuric acid produced" (which includes

scrubber byproduct) means the stoichiometric quantity of sulfuric acid that would be produced at the sulfuric acid plant if all sulfur trioxide exiting the converter were used to produce anhydrous sulfuric acid.

"Operating hours" are the periods during which sulfur or sulfur-bearing compounds (excluding conventional fossil fuels such as natural gas or fuel oils) are being fed to the furnace.

"Startup" means the 24-hour period beginning when the feed of sulfur or sulfur-bearing materials (excluding conventional fossil fuels such as natural gas or fuel oils) to the furnace commences after a main gas blower shutdown. "Shutdown" means the cessation of operation of the sulfuric acid plant for any reason, and begins at the time sulfur or sulfur-bearing feeds (excluding conventional fossil fuels such as natural gas or fuel oils) to the furnace ceases. "Malfunction" shall have the same meaning as found in 40 CFR 60.2." (Basis: Regulation 2-1-403)

27. Effective July 23, 2007, the owner/operator shall ensure that emissions of sulfuric acid mist do not exceed 0.15 lbs per ton of 100 % sulfuric acid produced. (Basis: Regulation 2-1-403, 40 CFR 60.83(a)(1))
28. The owner/operator shall install and operate SO₂ CEMS by July 1, 2007 to demonstrate compliance with the SO₂ limits in Part 26. Except during CEMS breakdowns, repairs, calibration checks, and zero span adjustments, the owner/operator shall operate CEMS during all sulfuric acid plant "Operating Hours" as defined in Part 26 to monitor and record the 3-hour arithmetic average (not weighted by production volume) SO₂ emission rate and the SO₂ emission rate averaged (not weighted by production volume) over all operating hours in each rolling 365-day period (both SO₂ emission rates in units of pounds per ton of 100% acid produced). The owner/operator shall ensure that CEMS is installed, certified, calibrated, maintained and operated according to 40 CFR 60.11, 60.13, and Part 60, Appendices B and F, except as otherwise provided in the EPA-approved alternative monitoring plan (AMP). The EPA-approved AMP shall be implemented by the owner/operator upon installation of the SO₂ CEMS. (Basis: Regulation 2-1-403)
29. The owner/operator shall take all steps

necessary to avoid CEMS breakdowns and minimize CEMS downtime, including operating and maintaining the CEMS according to best practice to minimize downtime and maintaining an on-site inventory of spare parts or other supplies necessary to make rapid repairs of the equipment. In the event of CEMS downtime longer than 24 hours, the owner/operator shall demonstrate compliance through the procedures outlined in the EPA-approved AMP. (Basis: Regulation 2-1-403)

30. The owner/operator shall ensure that the emission limits and standards for SO₂ and sulfuric acid mist in Parts 26 and 27 are not relaxed. (Basis: Regulation 2-1-403)

Compliance Assurance Monitoring Condition
For S-1 Sulfuric Acid Plant

31. The pH range specified in Permit Condition 17734, part 17b shall be maintained in A-11 Ammonia Scrubber during the period exhaust vapors from S-1 are abated by A-11. [Basis: 40 CFR 64.3(a)(2)]
32. A scrubber (A-11) liquid pH of less than 3.5 shall constitute an excursion. The owner/operator shall initiate an investigation of the control equipment within 24 hours for possible corrective action. If corrective action is required, the plant will proceed to implement such corrective action as soon as practicable. A pH below 3.5 in itself does not constitute a violation of the standard for PM, H₂SO₄, or SO₃. Failure to take corrective action as soon as practicable shall constitute an excursion for the purposes of responding to excursions under 40 CFR 64.7. [Basis: 40 CFR 64.6(c)(2)]
33. The owner/operator shall analyze a sample of Scrubber (A-11) liquid at least once per day to determine the pH of the scrubber liquid at all times A-11 is operating, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable.

[Basis: 40 CFR 64.7(c)]

34. Upon detecting an excursion, the owner/operator shall restore operation of the S-1 Sulfuric Acid Plant (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [Basis: 40 CFR 64.7(d)(1)]
35. In addition to the general reporting requirements of this permit, all reports of excursions shall follow the format outlined in 40 CFR 64.9(a)(2). [Basis: 40 CFR 64.9(a)]
36. In addition to the general recordkeeping requirements specified in section I.F. of this permit, all recordkeeping shall follow the format outlined in 40 CFR 64.9(b). [Basis: 40 CFR 64.9(b)]