ConocoPhillips

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ESDR-182-06
03-001-02-A

CERTIFIED MAIL – 7002 3150 0003 9082 1430

Ms. Brenda Cabral
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Subject: Response to Permit Evaluation and Statement of Basis – Application #10994

Dear Ms. Cabral:

Attached is a summary our comments on the Statement of Basis for Application #10994. We are still reviewing the Applicability of NSPS Subpart J to the flares. We will provide comments on this issue in the future.

Please contact Brent Eastep at (510) 245-4672 if you have questions or require further information.

Sincerely,

Philip C. Stern
Environmental Superintendent

Enclosures

cc: Brenda Cabral (via e-mail: BCabral@baaqmd.gov)

ConocoPhillips' Response to Draft Application 10994 Statement of Basis (SOB)

Comment Number	Issue	Location in Draft SOB	Response/Change Requested & Rationale
1	Applicability of Regulation 6-311 to Sulfur Plants (S-1001 – 1003) and Tail Gas Incinerators (A-421 – 423)	Table II B (p. 5-7); Table IV Ua (p. 29); PC #19278.4 (p. 46) Table VII Ua (p. 54)	Delete the applicability of Regulation 6-311 to the Sulfur Plants (S-1001 – 1003) in Tables IV Ua and VII Ua, and for Tail Gas Incinerators (A-421 – 423) in Table II B. Delete Permit Condition #19278.4. The emissions from the Sulfur plants (S-1001 – 1003) are currently subject to Regulation 6-330, which specifically regulates sulfur recovery units. Regulation 6-330 controls emissions of particulate matter from sulfur plants by limiting the emissions of SO3 and H2SO4. The applicability of Regulation 6-311 is not necessary because Regulation 6-330 already limits the only source of particulate matter at these sources.
2	Applicability of NSPS 40 CFR 60 Subpart J to Flares (S-296 and 398)	Table IV L (p. 9) Table VII L (p. 48)	ConocoPhillips is currently reviewing with the BAAQMD Legal Department the applicability of NSPS Subpart J to the Flares. Comments will be provided in the future.
3	BAAQMD Question: Do you (ConocoPhillips) know what normal monitoring is for heating value and exit velocity? [Flares, S-296 and 398]	Table VII L (p.49)	If the gases are not fully recovered during regeneration, flare gas volume is measured directly, per BAAQMD Regulation 12-11. Using the diameter of the flare tip, the velocity is calculated. Heating value for gases flared during regeneration is calculated based on flare gas samples taken during the flaring.
4	Applicability of NESHAPS 40 CFR 63 Subpart A to Flares (S-296 and 398)	Table VII – L "Presence of Flame" (p. 48)	Under the "Emission Limit" column add language similar to that in the other 40 CFR 63 flare citations. Add "... whenever emissions from S306 or S308 regeneration vented to flare" after "Presence of flame".
5	Applicability of NSPS 40 CFR 60 Subpart A and J to Sulfur Plants (S-1001 – 1003)	Table IV Ua (p. 29-31)	Delete all references to 40 CFR 60 Subpart A in Table IV Ua. In accordance with the ConocoPhillips Consent Decree, the Sulfur Plants are subject to NSPS Subpart J. NSPS Subpart J references the applicable sections of Subpart A. Consistent with other regulations which reference sections in other subparts in the Title V Permit, ConocoPhillips believes it is appropriate to only reference the applicable NSPS Subpart J sections in Tables IV Ua and VII Ua.

6	BAAQMD Question: Are 1002 and 1003 (S-1002 and S-1003) reconstructed?	p. 28	No. The sulfur plants are not reconstructed.
7	BAAQMD Question: Are you (ConocoPhillips) considering parameters pursuant to 63.1573(d) and (e)?	p. 28	No.
8	BAAQMD Question: Has this plan been submitted?	Table IV Ua 63.1574(f)(1) (p. 39)	Yes. The OMMP for S-1001 – S-1003 (Sulfur Recovery Units) was submitted with the Notice of Compliance Status (NOCS) in September, 2005.
9	BAAQMD Question: Have you (ConocoPhillips) complied with Part 2 (of PC# 20620)?	p. 47	Per 40 CFR 63.1574(f), the OMMP was submitted for S-1001 - S-1003 (Sulfur Plants) on 9/8/05 and for S-308 (U244 Reformer) on 4/10/06. The OMMP for S-306 (U231 Reformer) is due 150 days after the next scheduled turnaround.
10	Delete References to Permit Condition 19278 Parts 1 and 2 for Sulfur Plants (S-1001 – 1003)	Table IV Ua (p. 41) Table VII Ua (p. 54)	Pages 45 & 46 under Changes to the Permit references that source testing is not required and the requirements were deleted from Permit Condition #19278 Parts 1 and 2. For consistency, the references in Tables IV Ua and VII Ua to PC#19278 Parts 1 and 2 should be deleted.
11	Reduced source testing frequency for Sulfur Plants (S-1001 – 1003)	PC# 19278.3 (p. 46) Table VII – Ua (p. 55)	Add the following language to Permit Condition #19278 Part 3, "If the results are less than one quarter of the standard, the owner/operator shall repeat the source tests every permit term. If the results are greater than one quarter of the standard, the owner/operator shall repeat the source tests on an annual basis." Change the reference to providing source test results from 45 days to 60 days of the test. In Table VII – Ua, under the column Monitoring Requirement Citation, replace "... Part 2" with "... Part 3".
12	Sulfur Plant SO2 Emission Limit Averaging Period	Table VII Ua (p. 54, 55)	For the SO2 Limit, in the "Limit" column add "...12-Hour Rolling Average" after "250 ppm at 0% excess air".
13	Applicability of NSPS 40 CFR 60 Subpart J to Sulfur Plants (S-1001 – 1003)	Table IV Ua (p. 31)	The reference to Performance Specification 3 appears to be incorrect and should be removed. NSPS Subpart J specifically refers to Performance Specification 2, but not Performance Specification 3.

14	BAAQMD Question: Are both options being chosen? The tests seem to show that you are using caustic. Isn't that a wet scrubber?	Table IV Nb 63.1567(a)(1) (p.22-23)	Neither reformer will use a wet scrubber. Both reformers will use an "internal scrubbing system," which is circulation of caustic inside the reformer unit, not use of a wet scrubber. Add "using internal scrubbing system" to the end of the first sentence after "...during coke burn-off and catalyst rejuvenation".
15	BAAQMD Question: No scrubber? Why was this stricken?	Table IV Nb 63.1567(b)(1) (p. 23)	There is no wet scrubber on either S306 or S308. Both systems use an internal scrubbing system. See response to Comment Number 14 above.
16	BAAQMD Question: Are both options being chosen? [Options are control of HCL to 30 ppmv or 92% TOC destruction]	Table VII Nb (p. 52)	No. ConocoPhillips has chosen to comply with the 30 ppmv HCL limit for Unit 244 (S-308). For Unit 231 (S-306), we are considering both options.
17	BAAQMD Question: Can you identify the monitoring for TOC and HCL limits?	p. 52	For Unit 244 (S-308), colorimetric monitoring is done to demonstrate compliance with the 30 ppmv limit. The presence of a flame at the flare is monitored to demonstrate compliance with the TOC limit. For Unit 231 (S-306), monitoring options will be identified during the initial compliance demonstration (1st regeneration after 4/11/05) and submitted with the OMMP no later than 150 days after the regeneration.
18	Correct company name.	Throughout entire document.	Please replace "Conoco", with "ConocoPhillips" throughout the document.
19	Acceptable Test Methods	Table VIII (p. 57)	The references to Method 4 and 15 should be deleted from Table VII. These Test Methods are not referenced in Refinery MACT II.

Table II B – Abatement Devices

A#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
2	Sulfur Plant Tail-Gas Treatment Plant	S1002 tailgas	40 CFR 63.1568(a)(1)(i)	none	SO2< 250 ppm at 0% O2
3	Sulfur Plant Tail-Gas Treatment Plant	S1003 tailgas	BAAQMD 9-1-313.2 and SIP 9-1-313.2	none	95% of H2S in refinery fuel gas is removed and recovered on a refinery-wide basis
3	Sulfur Plant Tail-Gas Treatment Plant	S1003 tailgas	BAAQMD 6-330	none	0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4
3	Sulfur Plant Tail-Gas Treatment Plant	S1003 tailgas	40 CFRS 60.104(a)(2)(i)	none	SO2< 250 ppm at 0% O2
3	Sulfur Plant Tail-Gas Treatment Plant	S1003 tailgas	40 CFR 63.1568(a)(1)(i)	none	SO2< 250 ppm at 0% O2
421	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A1	6-301	none	Ringelmann 1 for < 3 min/hr
421	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A1	6-310	none	0.15 gr/dscf
~~421~~	~~Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)~~	~~A1~~	~~6-311~~	~~none~~	~~40 lb/hr~~
421	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A1	6-330	none	0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4
422	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A2	6-301	none	Ringelmann 1 for < 3 min/hr
422	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A2	6-310	none	0.15 gr/dscf
~~422~~	~~Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)~~	~~A2~~	~~6-311~~	~~none~~	~~40 lb/hr~~

Table II B – Abatement Devices

A#	Description	Source(s) Controlled	Applicable Requirement	Operating Parameters	Limit or Efficiency
422	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A2	6-330	none	0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4
423	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A3	6-301	none	Ringelmann 1 for < 3 min/hr
423	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A3	6-310	none	0.15 gr/dscf
~~423~~	~~Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)~~	~~A3~~	~~6-311~~	~~none~~	~~40 lb/hr~~
423	Tail-Gas Incinerator (19.5 MMbtu/hr, RFG)	A3	6-330	none	0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4

III. Generally Applicable Requirements

No changes to this section are proposed in this action.

IV. Source-Specific Applicable Requirements

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

- District Rules
- SIP Rules (if any) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into the California State Implementation Plan. SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless EPA has approved them through another program.

Table IV – Ua
Source-specific Applicable Requirements
S1001 – SULFUR PLANT UNIT 234 , S1002 – SULFUR PLANT UNIT 236
S1003 – SULFUR PLANT UNIT 238, ~~S301 – MOLTEN SULFUR PIT 234~~
~~S302 – MOLTEN SULFUR PIT 236 AND S303 – MOLTEN SULFUR PIT 238~~

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions (12/19/90)**		
6-301	Ringelmann #1 Limitation	Y	
6-305	Visible Particles	Y	
6-310~~.3~~	Particulate Weight Limitation	Y	
~~6-311~~	~~General Operations~~	~~Y~~	
6-330	Sulfur Recovery Units (SO3, H2SO4 emission limitations)	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)**		
9-1-313	Sulfur Removal Operations at Petroleum Refineries (processing more than 20,000 bbl/day of crude oil)	N	
9-1-313.2	operation of a sulfur removal and recovery system that removes and recovers: 95% of H2S from refinery fuel gas, 95% of H2S and ammonia from process water streams ~~(sulfur recovery is required when a facility removes 16.5 ton/day or more of elemental sulfur).~~	N	
SIP Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide (6/8/99)**		
9-1-313	Sulfur Removal Operations at Petroleum Refineries (processing more than 20,000 bbl/day of crude oil)	Y	
9-1-313.2	operation of a sulfur removal and recovery system that removes and recovers: 95% of H2S from refinery fuel gas, 95% of H2S and ammonia from process water streams	Y – note 1	
~~*40 CFR 60 Subpart A*~~	~~*General Provisions (03/16/1994)*~~		
~~*60.7*~~	~~*Notification and record keeping*~~	~~Y~~	
~~*60.7(a)(5)*~~	~~*Notification of beginning of demonstration of continuous monitoring system*~~	~~Y~~	
~~*60.7(b)*~~	~~*Records of startup, shutdown, or malfunction, malfunction of control equipment; or periods when CEM is inoperative*~~	~~Y~~	
~~*60.7(c)*~~	~~*Excess emissions and monitoring systems reports*~~	~~Y~~	
~~*60.7(d)*~~	~~*Format of summary report forms*~~	~~Y~~	
~~*60.7(f)*~~	~~*Records*~~	~~Y~~	
~~*60.8*~~	~~*Performance tests*~~	~~Y~~	

Table IV – Ua
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S1003 – SULFUR PLANT UNIT 238, ~~S301 – MOLTEN SULFUR PIT 234~~
~~S302 – MOLTEN SULFUR PIT 236 AND S303 – MOLTEN SULFUR PIT 238~~

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
~~60.11~~	~~Compliance with standards and maintenance requirements~~	~~Y~~	
~~60.11(a)~~	~~Compliance determined by performance tests and CEM~~	~~Y~~	
~~60.11(d)~~	~~Good air pollution control practice~~	~~Y~~	
~~60.11(f)~~	~~applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (c)~~	~~Y~~	
~~60.11(g)~~	~~Credible evidence~~	~~Y~~	
~~60.12~~	~~Circumvention~~	~~Y~~	
~~60.13~~	~~Monitoring requirements~~	~~Y~~	
~~60.13(a)~~	~~CEMs subject to Appendices B and F~~	~~Y~~	
~~60.13(b)~~	~~Installation of CEMs before performance tests~~	~~Y~~	
~~60.13(d)(1)~~	~~Zero and span calibration drifts~~	~~Y~~	
~~60.13(e)~~	~~Continuous operation, minimum frequency of operation~~	~~Y~~	
~~60.13(e)(2)~~	~~Monitoring cycle every 15 minutes~~	~~Y~~	
~~60.13(f)~~	~~Representative measurements~~	~~Y~~	
~~60.19~~	~~General notification and reporting requirements~~	~~Y~~	
NSPS 40 CFR 60 Subpart J	***Standards of Performance for Petroleum Refineries (7/1/00)***		
60.104	*Standards for Sulfur Oxides*	*Y*	
60.104(a)(2)(i)	*Sulfur dioxide (SO2) less than 250 ppm at 0% excess air*	*Y*	
60.105	*Monitoring of Emissions and Operations*	*Y*	
60.105(a)	*Continuous Monitoring systems*	*Y*	
60.105(a)(5)	*SO2 and O2 monitors*	*Y*	
60.105(a)(5)(i)	*Span values: 500 ppm SO2 and 25% O2*	*Y*	
60.105(a)(5)(ii)	*The performance evaluations for this SO2 monitor under §60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations*	*Y*	
60.105(e)(4)	*Periods of excess emissions*	*Y*	
60.105(e)(4)(i)	*12-hour periods where concentration exceeds average of 250 ppm, dry, at 0% O2*	*Y*	
60.106	*Test methods and procedures*	*Y*	
60.106(a)	*Methods in Appendix A*	*Y*	
60.106(f)	*Determination of compliance with SO2 limit*	*Y*	
60.106(f)(1)	*Methods to determine SO2 concentration*	*Y*	
60.106(f)(3)	*Methods to determine O2 concentration*	*Y*	

Table IV – Ua
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S1003 – SULFUR PLANT UNIT 238, ~~S301 – MOLTEN SULFUR PIT 234~~
~~S302 – MOLTEN SULFUR PIT 236 AND S303 – MOLTEN SULFUR PIT 238~~

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.107	*Reporting and recordkeeping requirements*	*Y*	
60.107(d)	*Data availability*	*Y*	
60.107(e)	*Semi-annual reports*	*Y*	
60.107(f)	*Signed certifications*	*Y*	
NSPS 40 CFR 60 Appendix B	***Performance Specifications***		
Performance Specification 2	*Specifications and Test Procedures for SO2 and NOX Continuous Emission Monitoring Systems in Stationary Sources*	*Y*	
~~*Performance Specification 3*~~	~~*Specifications and Test Procedures for O2 and CO2 Continuous Emission Monitoring Systems in Stationary Sources*~~	~~*Y*~~	
NSPS 40 CFR 60 Appendix F	***Quality Assurance Procedures***		
40 CFR 63, Subpart A	***General Provisions (3/16/94)***		
63.1	*Applicability (except that Subpart UUU specifies calendar or operating day)*	*Y*	
63.2	*Definitions*	*Y*	
63.3	*Units and Abbreviations*	*Y*	
63.4	*Prohibited Activities*	*Y*	
63.5	*Construction and Reconstruction*	*Y*	
63.5(a)	*Applicability*	*Y*	
63.5(b)	*Requirements for existing, newly constructed, and reconstructed sources (replace reference to Section 63.9 with Sections 63.9(b)(4) and (5))*	*Y*	
63.5(c)	*[reserved]*	*Y*	
63.5(d)	*Application for approval of construction or reconstruction*	*Y*	
63.5(d)(1)	*General application requirements*	*Y*	
63.5(d)(1)(i)	*Application for approval (except that Subpart UUUspecifies the application is submitted as soon as practicable before startup but not later than 90 days (rather then 60) after the promulgation date where construction or reconstruction had commenced and initial startup had not occurred before promulgation.)*	*Y*	
63.5(d)(1)(ii)	*Separate application for each construction or deconstruction (Except that emission estimates specified in §63.5(d)(1)(ii)(H) are*	*Y*	

Table IV – U
Source-specific Applicable Requirements
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S1003 – SULFUR PLANT UNIT 238, ~~S301 – MOLTEN SULFUR PIT 234~~
~~S302 – MOLTEN SULFUR PIT 236 AND S303 – MOLTEN SULFUR PIT 238~~

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
	stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.		
63.1576(d)	Records required by Tables 34 and 35 of Subpart UUU	Y	
63.1576(e)	Maintain copy of operation, maintenance, and monitoring plan	Y	
63.1576(f)	Records of changes that affect emission control system performance	Y	
63.1576(g)	Records in a form suitable and readily available for review	Y	
63.1576(h)	Maintain records for 5 years	Y	
63.1576(i)	Records onsite for 2 years; may be maintained offsite for remaining 3 years	Y	
BAAQMD Condition 19278			
~~Part 1~~	~~Annual source test requirement to verify H2S and ammonia removal efficiency. [Basis: Regulation 9-1-313.2]~~	~~Y~~	
~~Part 2~~	~~H2S and ammonia source test reporting requirement.~~	~~Y~~	
Part 3	Annual source test to verify SO3 and H2SO4 exhaust concentrations. [Basis: Regulation 6-330]	Y	
~~**BAAQMD Condition 20620**~~			
~~Part 1~~	~~Application requirement for 40 CFR63, Subpart UUU~~	~~Y~~	
~~Part 2~~	~~Submittal requirement for Operation, Maintenance, and Monitoring Plan~~	~~Y~~	~~4/11/05~~
BAAQMD Condition 21099	**APPLICABLE TO S1002, S1003 ONLY**		
Part 1	Light hydrocarbon control valve requirements [Basis: BACT]	Y	~~modification date~~
Part 2	Light hydrocarbon flange/connector requirements [Basis: BACT]	Y	~~modification date~~
Part 3	Centrifugal compressor requirements [Basis: BACT]	Y	~~modification date~~
Part 4	Light hydrocarbon centrifugal pump requirements [Basis: BACT]	Y	~~modification date~~
Part 5	Monitoring and repair program requirement [Basis: BACT]	Y	~~modification date~~
Part 6	ULSD project component count report requirement [Basis: BACT,	Y	~~modification~~

that the concentration of NH3 was 5.4 ppm or less, showing that destruction efficiency was excellent.

The fuel gas at Conoco is consistently under the 160 ppm limit in 40 CFR 60, Subpart J. Earlier studies show that the concentration in the fuel gas prior to desulfurization was between 70,000 and 120,000 ppm. This demonstrates a recovery rate of at least 99.8% of the H2S.

Deletion of parts 1 and 2 is also discussed in the statement of basis for Application 12433, which has been through public notice and will be proposed to EPA shortly.

CONDITION 19278

Conditions for S1001, S1002, S1003, Sulfur Recovery Units

Deleted _____. ~~Effective April 1, 2004, the owner/operator shall conduct the following District approved analyses at least once per calendar year:~~

~~a. H2S concentration in the fuel gas at the inlet and outlet of each refinery fuel gas treatment system,~~
~~b. H2S concentration in the sour water at the inlet and outlet of each sour water stripper system.,~~
~~c. H2S concentration in the inlet and outlet (upstream of any tailgas thermal oxidizer) of each sulfur plant,~~
~~d. ammonia concentration in the sour water stream at the inlet and outlet of each sour water stripper system [Regulation 9-1-313.2]~~

~~2. The owner/operator shall summarize the results of these analyses in a written report to the District within 30 days of the analyses. The report shall include a determination of compliance or noncompliance with the 95% removal and retention requirements of Regulation 9-1-313.2. Each analysis and report shall be retained onsite for at least 5 years. [Regulation 9-1-313.2]~~

3. An annual District-approved source test shall be performed to verify compliance with the requirements of Regulation 6-330. A copy of the source test results shall be provided to the District Director of Compliance and Enforcement within ~~45~~ 60 days of the test. If the results are less than one quarter of the standard, the owner/operator shall repeat the source tests every permit term. If the results are greater than one quarter of the standard, the owner/operator shall repeat the source tests on an annual basis.
[Regulation 6-330]

~~4. During the next turnaround after issuance of the permit pursuant to Application 10994, the owner/operator shall install a second testing port into the stack of Tail Gas Incinerators A421-A423. The owner/operator shall submit plans to the Source Test group for approval prior to construction. Within 90 days of startup after the turnaround and after obtaining approval from the District for the source test protocol, the owner/operator shall perform source tests to determine compliance with BAAQMD Regulations 6-310 and 6-311. Within 60 days of the source tests, the owner/operator shall submit the results of the source tests to the District. If the results are less than one quarter of the standard, the~~

Table VII – L
Applicable Limits and Compliance Monitoring Requirements
S296 – C-1 FLARE
S398 – MP-30 FLARE
[Flares which are visually inspected upon release, with no remote viewing system]

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQMD 6-310	Y	~~12/1/04~~	No emissions from source > 0.15 grains per dscf of gas volume	BAAQMD Condition 18255, Part 4	P/E	Visual Inspection
VE	*40 CFR 63.11(b)(4)*	*Y*		*No visible emissions except for 5 min in any two hours whenever emissions from S306 or S308 regeneration vented to flare*	*BAAQMD Condition 18255, Part 4*	*P/E*	*Visual Inspection*
SO2	40 CFR 60.104(a)(1)	Y		~~S398 is~~ Flares exempt per restriction in Condition 18255, Part 7~~; does not apply to S296~~(for the purposes of EPA enforcement, compliance is presence of fuel gas recovery system	None	N	None
All		N			BAAQMD 12-11-501 & 12-11-505	P/C	Flow Rate
All		N			BAAQMD 12-11-502.1 & 12-11-505	P/E	Composition
All		N			BAAQMD 12-11-502.3 & 12-11-505	P/E	Composition
All		N			BAAQMD 12-11-503 & 12-11-505	P/C	Flame Detector
All		N			BAAQMD 12-11-504 & 12-11-505	P/C	Purge Gas Flow Rate
All		N			BAAQMD 12-11-507	P/C	1 frame per minute image video recording
All		N			BAAQMD 12-11-507	P/C	1 frame per minute image video recording
Presence of flame	40 CFR 63.11(b)(5)	Y		Presence of flame *whenever emissions from S306 or S308 regeneration vented to flare*	40 CFR 63.11(b)(5)	C	Thermo-couple
Through-put	BAAQMD Condition 18255, Part 1	Y	~~12/1/04~~	1.69 E 6 lb/hr of vent gas at each flare	BAAQMD Condition 18255, Part 2	P/E	records

Table VII – Ua
Applicable Limits and Compliance Monitoring Requirements
S1001 - SULFUR PLANT UNIT 234; S1002 - SULFUR PLANT UNIT 236;
S1003 - SULFUR PLANT UNIT 238~~; S301 – MOLTEN SULFUR PIT 234; S302 – MOLTEN SULFUR PIT 236; S303 – MOLTEN SULFUR PIT 238~~

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
~~(H2S, ammonia)~~	~~BAAQMD 9-1-313.2 and SIP 9-1-313.2~~	~~N~~ ~~Y~~		~~95% of H2S in refinery fuel gas is removed and recovered on a refinery-wide basis AND 95% of H2S in process water streams is removed and recovered on a refinery-wide basis AND 95% of ammonia in process water streams is removed; refineries which remove the equivalent of 16.5 ton/day or more of elemental sulfur shall install a sulfur recovery plant or sulfuric acid plant~~	~~BAAQMD Condition 19278 Part 1~~	~~P/A~~	~~Source Test~~
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for no more than 3 minutes/hour	None for gaseous-fueled sources	N	None
FP	BAAQMD 6-305	Y		Prohibition of nuisance	None for gaseous-fueled sources	N	None
FP	BAAQMD 6-310	Y		0.15 grain/dscf	None for gaseous-fueled sources	N	None
~~FP~~	~~BAAQMD 6-311~~	~~Y~~			~~None~~	~~N~~	~~None~~

Table VII – Ua
Applicable Limits and Compliance Monitoring Requirements
S1001 - SULFUR PLANT UNIT 234; S1002 - SULFUR PLANT UNIT 236; S1003 - SULFUR PLANT UNIT 238~~; S301 – MOLTEN SULFUR PIT 234; S302 – MOLTEN SULFUR PIT 236; S303 – MOLTEN SULFUR PIT 238~~

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	40 CFR 63.1568(a)(1)(i)	Y		*250 ppm at 0% excess air 12-hour rolling average*	40 CFR 63.1572	C	CEM
SO3, H2SO4	BAAQMD 6-330	Y		0.08 grain/dscf exhaust concentration of SO3 and H2SO4, expressed as 100% H2SO4	BAAQMD Condition 19278 Part 3~~2~~	P/A	Source Test
throughput	BAAQMD Condition 20989, Part A	~~N~~Y		98,915 long ton/yr for S1001, S1002, S1003, S301, S302, S303	BAAQMD Condition 20989, Part A	P/M	records

Table VII – Ub
Applicable Limits and Compliance Monitoring Requirements
~~S1001 - Sulfur Plant Unit 234; S1002 - Sulfur Plant Unit 236; S1003 - Sulfur Plant Unit 238;~~ S301 - Molten Sulfur Pit 234; S302 - Molten Sulfur Pit 236; S303 - Molten Sulfur Pit 238

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
throughput	BAAQMD Condition 20989, Part A	~~N~~Y		98,915 long ton/yr for ~~S1001, S1002, S1003,~~ S301, S302, S303	BAAQMD Condition 20989, Part A	P/M	records

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 VI of the permit.

Changes to permit:
Test methods have been added for the limit in 40 CFR 60, Subpart J.

Table VIII
Test Methods

Applicable Requirement	*Description of Requirement*	*Acceptable Test Methods*
40 CFR 60 Subpart J, 60.104(a)(2)(i)	*SO2 limit*	*EPA Method 6, Determination of sulfur dioxide emissions from stationary sources, or* *EPA Method 6c, Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Procedure), and* *Method 3, Gas analysis for the determination of dry molecular weight, or* *Method 3A, Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)~~, and~~* *~~Method 4, Determination of moisture content in stack gases, and~~* *~~Method 15, Determination of hydrogen sulfide, carbonyl sulfide, and carbon disulfide emissions from stationary sources~~*