Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
a. Emission Unit 80: Boiler 80-1 (618 mmBtu/hr, Boiler 80-2 (716 mmBtu/hr), Boiler 80-3 (618 mmBtu/hr), Boiler 80-4 (737 mmBtu/hr), (Emission Point 80-1)		
1. **[RESERVED]**		
2. Conditions Applicable to Multiple Pollutants:		
i. Operational Limitations: *[Reference APC-90/0288(A5), APC-90/0289(A6), 90/0290(A5) and APC-90/0291]* A. Only desulfurized refinery fuel gas (RFG) or natural gas may be fired in Boilers 80-1, 80-2 and 80-4. Only desulfurized RFG, natural gas or syngas may be fired in Boiler 80-3. B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** E. Except during periods of startup and shutdown, the burner steam injection and flue gas recirculation systems in Boiler 2 shall be working in a manner consistent with maintaining 0.04 lb/MMBtu NO_X on a 24 hour rolling average. F. **[RESERVED]** G. **[RESERVED]** H. The Owner/Operator shall not cause or allow the combustion of any fuel in Boiler 80-4 at a rate that exceeds the boiler design capacity of 737 MMBtu/hr averaged over a rolling 365 day period. *[Reference 7 **DE Admin. Code** 1102 Section*	ii. Compliance Method: *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-90/0291]* A. Compliance with Operational Limitation (A) shall be based on the Monitoring/Testing requirements. B. **[RESERVED]** C. Compliance with Operational Limitation (D) shall be based on compliance with Condition a.5.iii.A. D. Compliance with Operational Limitation (E) shall be based on maintaining the manufacturer's recommended steam injection and flue gas recirculation rates. The rates may be adjusted based on the experience of the Owner/Operator with these controls, consistent with minimizing emissions and good engineering practices. E. **[RESERVED]** F. Compliance with Operational Limitation (H) shall be based on Monitoring/Testing requirements. G. Compliance with Operational Limitation (I) shall be based on the H_2S CEMS. H. Comply with "Combined Limits" in	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]** F. **[RESERVED]** G. The Owner/Operator shall notify the Department in writing prior to making any material changes which cause these units to fall under the authority of Title IV of the Clean Air Act. H. **[RESERVED]** I. The Owner/Operator shall submit the following quarterly CEMS reports by January 30, April 30, July 30 and October 30 of each calendar year: 1. The H_2S CEMS reports shall include the information required by 40 CFR 60.7(c) and (d). *[Reference 40 CFR*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
11.8, dated 06/01/1997] I. The H_2S content of the RFG shall not exceed 0.10 grain/dscf on a 3 hour rolling average. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290A5) and APC-97/0503(A3)]* J. Comply with "Combined Limits" in Condition 3 - Table 1.f.	Condition 3 - Table 1.f. iii. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]** F. **[RESERVED]** G. The Owner/Operator shall continuously monitor and record the fuel flow rates for each boiler. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2, dated 12/11/2000]* H. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H_2S in RFG before it is combusted in any fuel burning device. The H_2S monitor shall be located downstream of all process steps that increase the concentration of H_2S in RFG prior to its being combusted in any fuel burning device. The monitoring instrument shall conform to the QA/QC requirements in 40 CFR 60, Appendix "F." The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR	*60.7(c) and (d)]* J. Comply with "Combined Limits" in Condition 3 - Table 1.f. K. **[RESERVED]** *[Reference APC-90/0288(A5), APC-90/0289 A6), APC-90/0290(A5), APC-90/0291* and *APC-97/0503(A3)]* vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	60, Appendix "B." The Relative accuracy evaluations shall be conducted using Method 11 of 40 CFR Part 60, Appendix "A." *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* I. Comply with "Combined Limits" in Condition 3 - Table 1.f. iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall maintain all records necessary for determining compliance with this permit in accordance with Condition 3(b). *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-90/0291]* B. Comply with "Combined Limits" in Condition 3 - Table 1.f.	
3. Particulate Emissions:		
i. Emission Standards: *[Reference APC-90/0288(A5), APC-90/0289(A6), and APC-90/0290(A5)]* A. **[RESERVED]** B. PM_{10} emissions including H_2SO_4 shall not exceed the following limits:	iii. Compliance Method: *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-90/0291]* A. Compliance with PM_{10} Emission Standards shall be demonstrated using stack test based emissions factors and	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
1. 0.0104 lb/mmBtu heat input when firing natural gas or refinery fuel gas in Boilers 80-1, 80-2 and 80-3. 2. 0.026 lb/mmBtu heat input when firing syngas in Boiler 80-3. 3. 24 TPY from Boiler 80-1. 4. 27.8 TPY from Boiler 80-2. 5. 92 TPY from Boiler 80-3. C. **[RESERVED]** D. TSP emissions shall not exceed the following limits: 1. 0.0062 lb/mmBtu heat input when firing natural gas or refinery fuel gas in Boilers 80-1, 80-2 and 80-3. 2. 0.0074 lb/mmBtu heat input when firing syngas in Boiler 80-3. 3. 13.5 TPY from Boiler 80-1. 4. 15.7 TPY from Boiler 80-2. 5. 13.5 TPY from Boiler 80-3. E. **[RESERVED]** F. **[RESERVED]** ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	fuel flow rates for the boilers. B. Compliance with TSP Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers. C. **[RESERVED]** iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM_{10}, including H_2SO_4. 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM_{10} performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE**	vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	***Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
4. Sulfur Dioxide (SO_2):		
i. Emission Standards: A. **[RESERVED]** B. The Owner/Operator shall not cause or allow the emission of SO_2 in excess of the following limits: 1. Boiler 80-1: 61.4 TPY 2. Boiler 80-2: 71.2 TPY 3. Boiler 80-3: 778.9 TPY *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	iii. Compliance Method: *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* A. Compliance with the SO_2 Emission Standards for Boiler 80-3 shall be based on the SO_2 Continuous Emissions Monitoring System (CEMS) for Boiler 80-3. B. Compliance with the SO_2 Emission Standards for Boilers 80-1 and 80-2 shall be demonstrated by complying with the fuel gas monitored H_2S content limitations as measured by the H_2S Continuous Monitoring System (CMS) for Boilers 80-1 and 80-2. iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall operate and maintain SO_2 CEMS for 80-3. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* B. The SO_2 CEMS shall conform to	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** viii. Certification Requirement: In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 – Table 1.a.2.v (EU-80).

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Performance Specification 2 of 40 CFR 60, Appendix "B." The Quality Assurance/Quality Control (QA/QC) procedures for SO_2 CEMS for this boiler shall be established in accordance with 40 CFR 60, Appendix "F". *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]** v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall maintain SO_2 CEMS data, calibration and audit results in accordance with Condition 3(b). *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]*	
5. Nitrogen Oxides (NO_X):		
i. Emission Standards: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j B. The Owner/Operator shall not cause or	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. Compliance with the NO_X Emission Standards for Boiler 80-2 and the "Facility-wide Emission Limit for	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
allow the emission of NO_X in excess of the following baseline emission levels for the boilers: *[Reference APC-90/0289(A6)]* 1. RESERVED 2. RESERVED 3. RESERVED A. The NO_X emissions shall not exceed the following levels based on a 24-hour rolling average basis: 1. 0.20 lb/mmBtu for Boilers 80-1, 80-3 and 80-4. 2. 0.04 lb/mmBtu for Boiler 80-2. B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	Nitrogen Oxides (NOx)" shall be based on Continuous Emissions Monitoring System (CEMS) for NO_X and CO_2 for Boilers 80-1, 80-2 and 80-3. B. RESERVED iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall operate and maintain NO_X and CO_2 CEMS for the boilers. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* B. The QA/QC procedures for NO_X and CO_2 CEMS shall be established in accordance with 40 CFR 60, Appendix "F". *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/2000]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]*	*6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 – Table 1.a.2.v (EU-80). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The Owner/Operator shall maintain NO_X CEMS data, calibration and audit results in accordance with Condition 3(b). *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]*	
6. Carbon Monoxide (CO):		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. **[RESERVED]** B. The Owner/Operator shall not cause or allow the emissions of CO in excess of 0.034 lb/mmBtu from Boilers 80-1, 80-2 and 80-3 on a 24 hour rolling average basis. C. The Owner/Operator shall not cause or allow the emission of CO in excess of the following limits: 1. 92 TPY for Boiler 80-1. 2. 106.6 TPY for Boiler 80-2. 3. 92 TPY for Boiler 80-3. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* Compliance with the CO Emission Standards shall be demonstrated by the following methods: A. **[RESERVED]** B. Stack test based emissions factor and fuel flow rates for Boilers 80-1 and 80-3. C. CEMS for Boiler 80-2. iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. The Owner/Operator shall conduct an annual stack test for CO using EPA Reference Method 10 and in	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	accordance with Condition 3(b) unless the Department approves less frequent testing. B. The Owner/Operator shall operate and maintain CO CEMS for Boiler 80-2. C. The CO CEMS shall conform to the applicable Performance Specifications in 40 CFR Part 60, Appendix "B." The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60, Appendix "F." v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. For Boiler 80-2, the Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b). B. For Boilers 80-1, 80-3 and 80-4, the Owner/Operator shall comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
7. Volatile Organic Compounds (VOC):		
i. Emission Standards: *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* A. **[RESERVED]** B. VOC emissions shall not exceed the following limits: 1. 0.0014 lb/mmBtu from Boilers 80-1, 80-2 and 80-3. 2. **[RESERVED]** C. The Owner/Operator shall not cause or allow the emission of VOC in excess of the following limits: 1. 3.8 TPY from Boiler 80-1. 2. 4.4 TPY from Boiler 80-2. 3. 3.8 TPY from Boiler 80-3. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	iii. Compliance Method: Compliance with the VOC Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the boilers. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct annually an EPA Reference Method 25 A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
8. Sulfuric Acid Mist (H_2SO_4):		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. **[RESERVED]** B. The Owner/Operator shall not cause or allow the emission of H_2SO_4 in excess of the following limits: 1. 9.4 TPY for Boiler 80-1. 2. 10.9 TPY for Boiler 80-2. 3. 71.6 TPY for Boiler 80-3. C. **[RESERVED]** ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. Compliance shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers. B. **[RESERVED]** C. Compliance for the boiler 80-3 shall be demonstrated by applying the stack test based SO_2 to H_2SO_4 conversion factor to the CEMS-monitored SO_2 emissions. D. Compliance for Boilers 80-1 and 80-2 shall be demonstrated by applying the fuel gas monitored H_2S content to the H_2SO_4 conversion factor. iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct annually an EPA Reference Method 8	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	stack test for H_2SO_4, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of H_2SO_4 performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
9. **[RESERVED]**		
10. Visible Emissions:		
i. Emission Standard: The Owner/Operator shall not cause or allow the emission of visible air contaminants from this unit in excess of 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]*	iii. Compliance Method: Compliance with the visible Emission Standard shall be demonstrated by a Continuous Opacity Monitoring System (COMS) for Boilers 80-1, 80-2, 80-3 and 80-4 in the common stack. *[Reference APC-90/0288 (A5), APC90/0289 (A6), APC-90/0290 (A5)]* iv. Monitoring/Testing:	vi. Compliance Method: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v (EU-80). vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]* A. The Owner/Operator shall operate and maintain a COMS for Boilers 80-1, 80-2, 80-3 and 80-4 in the common stack. B. The COMS shall be maintained in accordance with Performance Specification 1 in 40 CFR 60, Appendix "B." v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall maintain COMS data, calibration and audit results. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5)]*	
11. Acid Rain Requirements for Boiler 80-4: *[Reference AQM-003/00016-CAIR]* The following are the requirements the Owner/Operator must follow for purposes of the Acid Rain Program:		
i. **[RESERVED]** A. **[RESERVED]** B. **[RESERVED]**	v. Compliance Method: Compliance with the SO_2 requirements shall be based on Monitoring, Recordkeeping and Reporting	viii. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
ii. SO_2 Requirements: A. The Owner/Operator shall: 1. Hold allowances for Boiler 4, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of SO_2 for the previous calendar year from the unit, and the requirement to hold each ton of allowances constitutes a separate requirement. 2. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. The Owner/Operator's allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. E. The Owner/Operator shall not deduct allowances in order to comply with the requirements under paragraph (A) above prior to the calendar year for which the allowance was allocated. F. **[RESERVED]** G. **[RESERVED]** iii. **[RESERVED]**	Requirements. vi. Monitoring Requirements: A. The Owner/Operator and, to the extent applicable, designated representative shall comply with the monitoring requirements as provided in 40 CFR Part 75. B. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for SO_2 under the Acid Rain Program. C. **[RESERVED]** D. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of TRS in RFG before it is combusted in Boiler 4. The TRS monitor shall be located downstream of all process steps which impact the composition of RFG prior to its being combusted in Boiler 4. The TRS monitor shall conform to the QA/QC requirements recommended by the manufacturer's specifications and listed in the QA/QC Plan for the TRS monitor. The TRS monitor shall conform to Performance Specification 5 of 40 CFR	shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. The Owner/Operator's designated representative shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75. ix. **[RESERVED]** x. **[RESERVED]** xi. Certification: In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Each document required to be submitted to the Department and the Administrator pursuant to the Acid Rain provisions of this permit shall be signed and certified by the Designated Representative and shall contain the following language: "*I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
iv. Excess Emissions Requirements: A. The Owner/Operator's designated representative shall submit a proposed offset plan, as required under 40 CFR Part 77 if Boiler 4 has excess emissions in any calendar year. B. If Boiler 4 has excess emissions in any calendar year, the Owner/Operator shall: 1. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and 2. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.	Part 75, Appendix "B." Relative accuracy evaluations shall be conducted using Method 15 of 40 CFR Part 75, Appendix "A." E. **[RESERVED]** vii. Recordkeeping: Unless otherwise provided, the Owner/Operator shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Department or the Administrator. A. The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.	*that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	B. All emissions monitoring information, in accordance with 40 CFR Part 75. C. Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program. D. Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.	
b. Emission Unit 82 Texaco Gasifiers 82-1a & 82-2a, Gas Coolers 82-1b & 82-2b (Fugitive Emissions, No Emission Points)		
1. Conditions Applicable to Multiple Pollutants:		
i. Operational Limitations: A. Fugitive emissions of Volatile Organic Compounds (VOC) from the gasification process shall be subject to the Leak Detection and Repair requirements in 40 CFR 60, subpart VV and to the requirements in 7 **DE Admin. Code** 1124 Section 29. *[Reference APC-97/0504]* B. **[RESERVED]**	ii. Compliance Method: A. Compliance with Operational Limitation (A) shall be based on the requirements of the Department approved facility-wide Leak Detection and Repair (LDAR) Program that addresses the fugitive emissions of Volatile Organic Compounds (VOC). *[Reference APC-97/0504]* B. **[RESERVED]** iii. Monitoring/Testing: *[Reference APC-97/0504]* None in addition to those listed in	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall follow the reporting requirements of 40 CFR 60, Subpart VV and 7 **DE Admin. Code** 1124, Section 29.11. *[Reference 7 **DE Admin. Code** 1124, Section 29.11, dated 11/29/1994]*. vi. Certification Requirement:

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Condition 3(b)(1)(ii) of this permit. iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall maintain all records pursuant to 40 CFR 60, Subpart VV and 7 DE Admin. Code 1124, Section 29.10. *[Reference 7 **DE Admin. Code** 1124, Section 29.10, dated 11/29/1994]* B. **[RESERVED]** C. **[RESERVED]**	That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
2. **[RESERVED]**		
c. Emission Unit 82 (cont'd) and 50: Amine Acid Gas Removal System 82-3, Syngas Flare 82-4 (Emission Points 82-1and 82-2) Three-Cell Linear Mechanical Draft Cooling Tower 50 (Emission Point 50)		
1. Conditions Applicable to Multiple Pollutants:		
i. Operational Limitations: *[Reference APC-97/0504]* A. Syngas may be diverted to the flare during periods when process upsets, malfunctions, safety trips, start-ups or shut-downs occur in the combustion turbines, gasification section, gas cooling section, the amine acid gas removal system, the slurry preparation section, Boiler 3, the refinery sulfur	ii. Compliance Method: *[Reference APC-97/0504]* Compliance shall be based on Recordkeeping and Reporting requirements and on information available to the Department which may include, but is not limited to, monitoring results, opacity and process operating data. iii. Monitoring/Testing: None in addition to those listed in	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* The Owner/Operator shall submit semi-annual reports. The reports for the preceding semi-annual period shall be submitted to the Department by January 31

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
recovery unit or in the air separation plant. B. The Owner/Operator shall take all necessary steps to ensure that the duration of each flaring event is minimized. The total duration of clean syngas flaring during periods of process upset and malfunction shall not exceed 800 hours in any rolling 12 month period. C. The Department reserves the right to revisit the above 800-hour limit at the time of permit renewal and revise it based on actual operating history. D. Upon commencement of a raw syngas flaring event when one gasifier train is operating, the coke feed to the gasifier shall be reduced to 840 tons per day of coke within 2 hours. This 840 tons per day limit is only applicable to the gasifier in the raw syngas flaring mode and does not apply to the other gasifier so long as it is producing clean syngas through the AGR. If during two train operation, both trains experience a raw syngas flaring event, then coke feed to each gasifier shall be reduced to 600 tons per day within 2 hours.	Condition 3(b)(1) of this permit. iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** B. The following records shall be maintained: 1. Record of all periods of start up, shut down and process upsets that cause syngas to be flared. Flare emissions shall be reportable to the Department in accordance with the requirements of Section 304 of the Emergency Planning and Community Right to Know Act of 1986 and the Reporting requirements listed below. *[Reference APC-97/0504]* 2. Record of all durations of flaring events and description of event including: (1) the date, time and duration of the flaring event; (2) whether the flaring was smokeless; (3) the type of syngas flared (raw; raw/clean or clean); (4) the reason(s) and/or cause(s) of the flaring event; and (5) any	and July 31 of each calendar year for the semi-annual period. The summary shall include: *[Reference APC-97/0504]* A. All periods of flaring events with a description of each event including steps taken to minimize each flaring duration and steps taken to prevent similar occurrences in the future. B. During periods of flaring, the calculated raw syngas production rate, the measured clean syngas flow rate, the heat content of the syngas, hourly coke slurry feed rate to each gasifier, and the sulfur content of the coke slurry feed to each gasifier on a daily average basis and on a rolling twelve month average basis. C. Calculated cumulative rolling 12 month flare emissions of SO_2, NO_X and CO during start-ups and shutdowns of gasification section, gas cooling section, the amine acid gas removal system, combustion turbines, sulfur recovery unit, slurry preparation system or air separation plant. D. Calculated duration of syngas flaring during periods when start-ups, shutdowns, process upsets, malfunctions and safety trips occur in the combustion turbines, gasification

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	corrective action taken as a result of the flaring event. *[Reference APC-97/0504]*	section, gas cooling section, the amine acid gas removal system, the slurry preparation section, the refinery sulfur recovery unit or in the air separation plant on a rolling 12 month basis. E. All periods when calculated PM_{10} emission rates exceed 6.57 TPY on a rolling 12 month basis. vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-97/0504]* A. The Owner/Operator shall not cause or allow the emission of particulate matter (PM_{10}) in excess of 6.57 TPY from cooling tower operations on a rolling 12 month basis. B. The Owner/Operator shall not cause or allow the emissions of particulate matter in excess of 0.2 grains per standard cubic foot from the cooling tower operations. *[Reference 7 **DE Admin Code** 1105 Section 2.0, dated 02/01/1981]* ii. Operational Limitation: Comply with "Conditions Applicable to	iii. Compliance Method: *[Reference APC-97/0504]* A. Compliance with Emission Standard (A) shall be based on Monitoring, Recordkeeping and Reporting Requirements. B. Compliance with Emission Standard (B) shall be demonstrated by installing high efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulation. iv. Monitoring/Testing: *[Reference APC-97/0504]* A. The Owner/Operator shall conduct a quarterly test of total solids using	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.v (EU-82). *[Reference APC-97/0504]* vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).	Method 2540B of Standard Methods for the Examination of Water and Wastewater. B. The Owner/Operator shall continuously monitor cooling water flow rate. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Quarterly test results of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater. *[Reference APC-97/0504]* B. Continuous cooling water flow rates. *[Reference APC-97/0504]*	
3. Sulfur Dioxide (SO_2):		
i. Emission Standard: The Owner/Operator shall not cause or allow emission of SO_2 in excess of 709 tons from the flare during process upsets, planned start-ups and planned shut downs of gasification section, gas cooling section, amine acid gas removal system, combustion turbines, sulfur recovery unit or air separation plant in any rolling 12 month period. *[Reference APC-97/0504]*	iii. Compliance Method: *[Reference APC-97/0504]* Compliance shall be demonstrated as follows: A. Emissions from raw syngas flaring shall be determined based on the coke and flux slurry rate to the gasifier and the percent sulfur in the slurry solids from the daily sample required by Monitoring Testing requirement (A). B. Emissions from clean syngas flaring shall be determined from the flow and	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).	sulfur content of the clean syngas as measured by the TRS analyzer. iv. Monitoring/Testing: *[Reference APC-97/0504]* A. The Owner/Operator shall monitor the sulfur content in the coke slurry on a daily basis when raw syngas is diverted to this flare. B. The Owner/Operator shall use the Department approved monitoring protocol to determine the sulfur content in the coke slurry fed to each gasifier. The monitoring protocol shall be used to determine the rate of sulfur entering the gasifier using daily sampling and analysis for sulfur content of the coke slurry. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Hourly raw and clean syngas production rates from each gasifier. *[Reference APC-97/0504]* B. Hourly coke and flux slurry rates to each gasifier. *[Reference APC-97/0504]* C. Sulfur content in the coke slurry sampled and analyzed daily when raw	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	syngas is diverted to the flare. *[Reference APC-97/0504]* D. 24-hour rolling average and 12 month rolling average sulfur content in the clean syngas. *[Reference APC-97/0504]* E. Cumulative rolling 12 month flare SO_2 emissions. *[Reference APC-97/0504]* F. Record of all durations of raw syngas flaring events. *[Reference APC-97/0504]*	
4. NO_X Emissions:		
i. Emission Standard: *[Reference: Air Quality Construction Permit Application, dated May 1997 and Letter with spreadsheet attachment from Mike Gritz to Ravi Rangan dated July 28, 2003]* A. The Owner/Operator shall not cause or allow the emission of NO_X in excess of 28 tons from the flare during process upsets, planned start-ups and planned shut downs of gasification section, gas cooling section, amine acid gas removal system, combustion turbines, sulfur recovery unit or air separation plant in any rolling 12 month period. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 -	iii. Compliance Method: A. Compliance with the Emission Standard A shall be based on Monitoring and Recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j for NOx emissions shall be estimated in accordance with best engineering judgment or any other method proposed by the Owner/Operator and approved by the Department. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* iv. Monitoring/Testing: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/2000]* A. The Owner/Operator shall continuously monitor the type and the duration of each type of fuel combusted in the	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Table 1.c.1 (EU-82).	flare. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Amount of raw and clean syngas flared. B. Continuous record of the hours that each fuel is combusted. C. Twelve (12) month running totals calculated each month for the previous calendar month of the amount and duration of each fuel type. *[Reference APC-97/0504]* D. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j.	
5. CO Emissions:		
i. Emission Standard: *[Reference: Air Quality Construction Permit Application, dated May 1997 and Letter with spreadsheet attachment from Mike Gritz to Ravi Rangan dated July 28, 2003]* The Owner/Operator shall not cause or allow the emission of CO in excess of 1,117 tons from the flare during process	iii. Compliance Method: Compliance with the Emission Standard shall be based on Monitoring and Recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]*	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
upsets, planned start-ups and planned shut downs of gasification section, gas cooling section, amine acid gas removal system, combustion turbines, sulfur recovery unit or air separation plant in any rolling twelve (12) month period. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).	iv. Monitoring/Testing: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/2000]* The Owner/Operator shall continuously monitor the type and the duration of each type of fuel combusted in the flare. v. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/2000]* In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Amount of raw and clean syngas flared. B. Continuous record of the hours that each fuel is combusted. C. Twelve (12) month running totals calculated each month for the previous calendar month of the amount and duration of each fuel type.	vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
6. Visible Emissions:		
i. Emission Standard: *[Reference APC-97/0504]* Emissions from the flares shall be smokeless except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. ii. Operational Limitations:	iii. Compliance Method: *[Reference APC-97/0504]* Compliance with the visible Emission Standard shall be determined by the Monitoring/Testing requirement. iv. Monitoring/Testing: *[Reference APC-97/0504]* Compliance with the visible Emission	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).	Standard shall be determined by Reference Method 22 of Appendix "A" in 40 CFR 60. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv (EU-82).	Multiple Pollutants" in Condition 3 - Table 1.c.1.v (EU-82). *[Reference **APC-97/0504**]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
d. Emission Unit 84: Combined Cycle Units 84-1 and 84-2 (Emission Points 84-1 and 84-2)		
1. Conditions Applicable to Multiple Pollutants:		
i. Emission Standards: *[Reference 97/0503 (A3)]* A. The Owner/Operator shall not cause or allow emissions from the CCUs that exceed the Standards of Performance for New Stationary Gas Turbines specified in 40 CFR 60 Subpart GG. *[Reference 40 CFR 60 Subpart GG dated 09/10/1979 for SO_2 and dated 10/17/2000 for NO_x, and 7 **DE Admin. Code** 1120 Section 10 dated 11/27/1985]* B. The Owner/Operator shall not cause or allow emissions from the duct burners that exceed the Standards of Performance for Electric Utility Steam Generating Units specified in	iii. Compliance Method: *[Reference APC-97/0503 (A7)]* A. Compliance with the Emission Standards (A) and (B) (NSPS limits) shall be based on the type of fuel combusted and/or compliance with the more stringent emission limits specified for individual pollutants for these units. B. Compliance with the Operational Limitations (A) and (C) (pertaining to type and amount of fuel burned) shall be based on record keeping requirements. C. Compliance with Operational Limitation	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** B. The Owner/Operator shall notify the Department in writing prior to making any material changes which cause these units to fall under the Authority of Title IV of the Clean Air Act. *[Reference APC-97/0503 (A3)]* C. Comply with "Combined Limits" in Condition 3 - Table 1.f.

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
40 CFR 60 Subpart Db. *[Reference 40 CFR 60 Subpart Db dated 10/17/2000 for SO_2 and particulate matter and dated 08/14/2001 for NO_x, and 7 **DE Admin. Code** 1120 Section 26 dated 12/07/1988]* C. The Department reserves the right to establish emission limitations and/or additional controls for specific compounds based on the results of the stack tests required under the Monitoring/Testing requirements. D. Comply with "Combined Limits" in Condition 3 - Table 1.f. ii. Operational Limitations: *[Reference APC-97/0503 (A7)]* A. When syngas is not fired in the combustion chambers of the CCUs, only ultra low sulfur diesel (ULSD) may be fired in its place. The combined utilization of ULSD for both CCUs may not exceed 13,300,000 gallons in any 12 consecutive months. B. The sulfur content in the ULSD oil shall not exceed 0.0015 weight percent (15 ppmw). C. Only natural gas may be fired in the duct burners of the HRSGs. The combined utilization of natural gas shall not exceed 930,080 mmBtu/year in any twelve consecutive months.	(B) (pertaining to sulfur content of ULSD) shall be based on monitoring/testing requirements. D. **[RESERVED]** E. Compliance with the Operational Limitation (F) shall be based on record keeping requirements. F. Comply with "Combined Limits" in Condition 3 - Table 1.f. iv. Monitoring/Testing: *[Reference 97/0503 (A3)]* A. ULSD sulfur content shall be determined by ASTM D-2622 or other federal or Department approved method. B. **[RESERVED]** C. Comply with "Combined Limits" in Condition 3 - Table 1.f. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** B. The following records shall be maintained in accordance with Condition 3(b): 1. Record of all operating hours of	vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
D. **[RESERVED]** E. **[RESERVED]** F. The periods of startups, shutdowns and fuel transfers (syngas to ULSD and ULSD to syngas) shall not exceed 2 hours in duration. G. Comply with "Combined Limits" in Condition 3 - Table 1.f.	each CCU showing clearly the hours of operation with different fuel types, i.e., hours of operation with syngas and ULSD, and the amount of each fuel type consumed. *[Reference APC-97/0503 (A7)]* 2. Record of all operating hours of the duct burner of each HRSG showing clearly the hours of operation and the amount of natural gas consumed. *[Reference APC-97/0503 (A7)]* 3. **[RESERVED]** 4. **[RESERVED]** 5. **[RESERVED]** 6. The weight percent sulfur content in LSDF. *[Reference **APC-97/0503 (A3)**]* 7. **[RESERVED]** C. Comply with "Combined Limits" in Condition 3 - Table 1.f.	
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-97/0503 (A7)]* A. **[RESERVED]** B. PM_{10} emissions including H_2SO_4 shall not exceed the following limits: 1. 0.0426 lb/mmBtu heat input when firing syngas in CCUs.	iii. Compliance Method: *[Reference APC-97/0503 (A7)]* A. Compliance with PM_{10} Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
2. 0.0431 lb/mmBtu when firing syngas in the CCUs and natural gas in the duct burners. 3. 0.0090 lb/mmBtu when firing ULSD in the CCUs. 4. 0.0093 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners. C. **[RESERVED]** D. TSP emissions shall not exceed the following limits: 1. 0.0076 lb/mmBtu heat input when firing syngas in CCUs. 2. 0.0081 lb/mmBtu when firing syngas in the CCUs and natural gas in the duct burners. 3. 0.0090 lb/mmBtu when firing ULSD in the CCUs. 4. 0.0093 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners. E. **[RESERVED]** ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	B. Compliance with TSP Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners. C. The Owner/Operator may use stack test results obtained while the CCUs are operating with duct burners to demonstrate compliance with the respective non-duct burner emission standards for PM_{10} and TSP by subtracting the heat input of the duct burners. iv. Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM_{10}, including H_2SO_4. 3. If the Owner/Operator conducts stack testing with the duct burners in operation, the Owner/Operator shall calculate the emission rate for operation without duct burner operation by subtracting the heat input contributed by the duct burners. 4. The Owner/Operator may petition	Multiple Pollutants" in Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	the Department to decrease the frequency of TSP or PM_{10} performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.iv (EU-84). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	
3. **[RESERVED]**		
4. Nitrogen Oxides (NO_X):		
i. Emission Standards *[Reference APC-97/0503 (AZ)]* A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j B. RESERVED C. The NO_X emissions from each CCU shall not exceed the following levels on an hourly basis: 1. 15 ppmvd @ 15% O_2 when CCU burns syngas without duct firing.	iii. Compliance Method: *[Reference APC-97/0503 (AZ)]* A. Compliance with the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" and with the NO_X Emission Standards shall be based on Continuous Emissions Monitoring System (CEMS) for NO_X and O_2. B. Compliance with the Operational Limitations shall be based on Recordkeeping requirements.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** vii. Certification Requirement: In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall:

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
2. 18 ppmvd @ 15% O_2 when CCU burns syngas with duct firing. 3. 42 ppmvd @ 15% O_2 when CCU burns ULSD without duct firing. 4. 39 ppmvd @ 15% O_2 when CCU burns ULSD with duct firing. D. The NO_X emission rates from the CCUs shall not exceed 390 ppmvd @ 15% O_2 during startups, shutdowns and fuel transfers (syngas to ULSD and ULSD to syngas). E. **[RESERVED]** F. **[RESERVED]** ii. Operational Limitations: *[Reference APC-97/0503 (A3)]* A. NO_X control shall be achieved by injecting nitrogen gas into the combustion chambers of the CCUs when burning syngas and by steam injection when burning ULSD. B. Except during start ups, shut downs and fuel transfers (syngas to ULSD and ULSD to syngas), the CCUs shall not be operated unless the NO_X control measure described in Operational Limit (A) above is operating properly.	iv. Monitoring/Testing: *[Reference APC-97/0503 (A3)]* A. The Owner/Operator shall operate and maintain NO_X and O_2 CEMS for the CCUs. B. The Quality Assurance/Quality Control (QA/QC) procedures for NO_X CEMS shall be established in accordance with 40 CFR Part 60, Appendix "F". C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" Part 1, in Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. The Owner/Operator shall keep NO_X CEMS data calibration and audit results in accordance with Condition 3(b). *[Reference APC-97/0503 (A3)]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Part 1, Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	*[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 – Table 1.a.2.v (EU-80).

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	**Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)**	**Reporting and Compliance Certification**
5. Carbon Monoxide (CO):		
i. Emission Standards: *[Reference APC-97/0503 (A7)]* A. **[RESERVED]** B. CO emissions on an hourly basis shall not exceed the following limits: 1. 0.051 lb/mmBtu heat input when firing syngas in CCUs without duct burners. 2. 0.069 lb/mmBtu when firing syngas in the CCUs and natural gas in the duct burners. 3. 0.048 lb/mmBtu when firing ULSD in the CCUs without duct burners. 4. 0.067 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners. C. The above lb/mmBtu limits shall not apply during periods of startup, shutdown and fuel transfer (syngas to ULSD and ULSD to syngas). The Owner/Operator shall follow good air pollution control practices to minimize CO emissions during these periods. ii. Operational Limitations: *[Reference APC-97/0503 (A7)]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	iii. Compliance Method: *[Reference APC-97/0503 (A7)]* Compliance with the CO Emission Standards shall be based on the following methods: A. CEMs for the CCUs. B. **[RESERVED]** C. **[RESERVED]** iv. Monitoring/Testing: *[Reference APC-97/0503 (A3)]* A. The Owner/Operator shall operate and maintain CO CEMS for the CCUs. B. **[RESERVED]** C. The CO CEMS shall satisfy the applicable Performance Specifications in 40 CFR part 60, Appendix "B." The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60 Appendix "F." v. Recordkeeping: The Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b).	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
6. Volatile Organic Compounds (VOC):		
i. Emission Standards: *[Reference APC-97/0503 (A7)]* A. **[RESERVED]** B. VOC emissions shall not exceed the following limits: 1. 0.0011 lb/mmBtu heat input when firing syngas in CCUs without duct burners. 2. 0.0048 lb/mmBtu when firing syngas in the CCUs and natural gas in the duct burners. 3. 0.0082 lb/mmBtu when firing ULSD in the CCUs without duct burners. 4. 0.0108 lb/mmBtu when firing ULSD in the CCUs and natural in the duct burners. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	iii. Compliance Method: *[Reference APC-97/0503 (A7)]* A. Compliance with the VOC Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners. B. The Owner/Operator may use stack test results obtained while the CCUs are operating with duct burners to demonstrate compliance with the respective non-duct burner emission standards for VOC by subtracting the heat input of the duct burners. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25 A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. B. If the Owner/Operator conducts stack testing with the duct burners in operation, the Owner/Operator shall calculate the emission rate for operation without duct burner	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	operation by subtracting the heat input contributed by the duct burners. C. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.iv (EU-84). v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	
7. **[RESERVED]**		
8. **[RESERVED]**		
9. Visible Emissions:		
i. Emission Standard: *[Reference APC-97/0503 (A7)]* The Owner/Operator shall not cause or allow the emission of visible air contaminants from the CCUs in excess of 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	iii. Compliance Method: *[Reference APC-97/0503 (A7)]* Compliance with the visible Emission Standard shall be based on Monitoring/Testing requirements and on information available to the Department which may include, but is not limited to, monitoring results, opacity and process operating data. iv. Monitoring/Testing: *[Reference APC-97/0503 (A3)]* The opacity of visible emissions shall be verified quarterly by EPA Reference Method No. 9 in accordance with 7 **DE Admin Code** 1120 Section 1.5 for any calendar	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	quarter during which No. 2 fuel oil is fired in the combustion chambers of the CCUs, unless the Owner/Operator can demonstrate that verification for that calendar quarter was not practicable due to the length of time fuel oil was fired in the combustion chambers or other issues demonstrating impracticability. The Owner/Operator shall, however, perform at least one Method No. 9 verification during each calendar year. If opacity readings over 20% are recorded at any time, the Department reserves the right to require the Owner/Operator to conduct more frequent visible emissions observations and may include the requirement to install a COMS. v. Recordkeeping: In addition to complying with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84), the Owner/Operator shall keep the opacity readings recorded in accordance with the Monitoring/Testing requirements when ULSD is fired in the combustion chambers of the CCUs.	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
e. Facility-Wide: The following permit conditions are applicable to all emission units listed in Condition No. 1 of this permit and any insignificant activity listed in Regulation No. 30 Appendix A operated by the Owner/Operator.		
1. Conditions applicable to Multiple Pollutants:		
i. Operational Limitations: A. At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall maintain and operate the equipment and processes covered by this Permit, including all structural and mechanical components and all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. B. **[RESERVED]**	ii. Compliance Method: Compliance shall be based on information available to the Department which may include, but is not limited to, monitoring/testing results, opacity and process operating data. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* iii. Monitoring & Testing: None in addition to those listed in Condition 3(b)(1)(ii) of this permit. iv. Recordkeeping: None in addition to those listed in Condition 3(b)(2) of this permit.	v. Reporting Requirement: None in addition to those listed in Condition 3(c)(2)(ii)(B) of this permit. vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
2. Odor:		
i. Emission Standard: *[Reference APC-97/0504]* Odors from this source shall not be detectable beyond the plant property lines in quantities which cause a condition of air pollution as "air pollution" is defined in 7 DE Admin. Code 1101. **[State Enforceable Only]** ii. Operational Limitations: None in addition to those listed in	iii. Compliance Method: Compliance with the emission standard of this condition shall be demonstrated in accordance with the monitoring/testing and record keeping requirements of this condition and based on information available to the Department which may include, but is not limited to, monitoring results and process operating data. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1,*	vi. Reporting Requirement: All records indicating exceedance of the standard in accordance with Condition 3(c)(2) of this permit. vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Condition 3(a) of this permit.	*dated 12/11/00]* iv. Monitoring & Testing: *[Reference 7 **DE Admin. Code** 1119 Section 1.2 dated 2/1/81]* Includes but is not limited to scentometer tests, air quality monitoring, and affidavits from affected citizens and investigators. v. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/2000]* Records of all monitoring/testing shall be maintained on site in accordance with Condition 3(b).	
3. Visible Emissions:		
i. Emission Standard: *[Reference 7 **DE Admin. Code** 1114 Section 2.1 dated 07/17/1984]* The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from a stationary or mobile source, the shade or appearance of which is greater than 20% percent opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1 (Facility-wide).	iii. Compliance Method: *[Reference 7 **DE Admin. Code** 1114 Section 2.1 dated 07/17/1984 and 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/2000]* Except for units where compliance with the visible emission standard is required to be demonstrated by a COMS or where compliance is otherwise specified within this permit, compliance with the visible Emission Standard of this condition shall be demonstrated in accordance with Subsection 1.5(c) of 7 **DE Admin Code** 1120 and the record keeping requirements of this condition. iv. Monitoring/Testing: A. **[RESERVED]**	vi. Reporting: All records indicating exceedances of the standard in accordance with Condition 3(c)(2) of this permit. vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	B. For sources not subject to a specific visible emissions requirement within this permit, the Owner/Operator shall conduct weekly qualitative observations to determine the presence of any visible emissions. 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or determine compliance in accordance with subparagraph 3 below. 2. If no visible emissions are observed or are within permitted limits, no further action is required. 3. If required under subparagraph 1 above, the Owner/Operator shall, in accordance with 7 **DE Admin Code** 1120 Section 1.5, conduct visual observations at fifteen second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for Section 2.5 and the second sentence of Section 2.4) of	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	reference Method 9 set forth in Appendix A, 40 CFR Part 60 revised July 1, 1982. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/2000]* v. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/2000]* Observation records shall be maintained on site in accordance with Condition 3(b).	
f. Combined Limits: The following permit conditions are applicable to multiple emission units as noted below:		
1. Conditions Applicable to Multiple Pollutants:		
i. Operational Limitations: A. During single train operation of the gasifier, the sulfur content in the clean syngas shall not exceed 508 ppmvd on a 24-hour rolling average basis and 480 ppmvd on a twelve month rolling average basis as measured by the TRS analyzer. Within 60 days of achieving sustained two train operation at the design rate, the Owner/Operator shall propose for the Department's approval a short term and annual TRS limits for two gasifier train operations. In the interim period, during two train operations, the sulfur content in the clean syngas shall not exceed 830	ii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. Compliance with Operational Limitation (A) shall be based on the TRS CEMS. B. Compliance with Operational Limitation (C) shall be based on recordkeeping. iii. Monitoring/Testing: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of TRS in syngas before it is combusted in any fuel burning device. The TRS monitor shall be located downstream of all process steps which	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. **[RESERVED]** B. **[RESERVED]** C. The Owner/Operator shall submit the following quarterly CEMS reports by January 30, April 30, July 30 and October 30 of each calendar year: 1. **[RESERVED]** 2. The SO_2, NO_X and CO CEMS and COMS reports for CEMS required

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
ppmvd on a 24 hour rolling average basis. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* B. **[RESERVED]** C. The Owner/Operator shall not cause or allow the use of any fuel having a sulfur content greater than 1.0 % by weight and any distillate fuel oil having a sulfur content greater than 0.3 % by weight in any fuel burning equipment. *[Reference 7 **DE Admin Code** 1108 Sections 2.1 and 2.2, dated 05/09/1985]*	impact the composition of syngas prior to its being combusted in any fuel burning device. The TRS monitor shall conform to the QA/QC requirements recommended by the manufacturer's specifications and listed in the QA/QC Plan for the TRS monitor. The TRS monitor shall conform to Performance Specification 5 of 40 CFR Part 60, Appendix "B." Relative accuracy evaluations shall be conducted using Method 15 of 40 CFR Part 60, Appendix "A." *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* B. **[RESERVED]** iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Records shall be maintained of all 24-hour rolling and 12-month rolling averages of sulfur content in clean syngas as measured by the TRS analyzer. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]*	for the Boilers and CCUs shall include the following: a. Excess emissions and the nature and cause of the excess emissions, if known. The summary shall consist of emission averages, in the units of the applicable standard, for each averaging period during which the applicable standard was exceeded. b. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments. c. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall not cause or allow the emission of particulate matter (PM10) in excess of 311 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined (inclusive of H_2SO_4 mist) on a rolling twelve (12) month basis. B. The Owner/Operator shall not cause or allow the emission of total suspended particulate (TSP) in excess of 78.7 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined. C. The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBtu, maximum two (2) hour average, from any fuel burning equipment. *[Reference 7 **DE Admin Code** 1104 Section 2.1, dated 2/1/1981]* ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.	iii. Compliance Method *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A3)]* A. Compliance with PM10 Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors and fuel flow rates for the CCUs, duct burners and boilers. B. Compliance with TSP Emission Standards shall be demonstrated by firing only natural gas or by using using stack test based emissions factors and fuel flow rates for the CCUs, duct burners and boilers. iv. Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM10, including H_2SO_4. 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM10 performance tests based on the results of any performance testing. 4. Annual stack testing shall not be	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification Requirement: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v.

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-90/0288 (A9), APC-90/0289 (A7), APC-90/0290 (A8), APC-97/0503 (A7) and APC-2009/0089 (A1)]* B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
3. Sulfur Dioxide (SO_2):		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall not cause or allow the emission of SO_2 in excess of 2079.7 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined.	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* Compliance with the SO_2 Emission Standards shall be based on Continuous Emissions Monitoring System (CEMS) for Boiler 80-3 and the CCUs and the H_2S Continuous Monitoring System (CMS) for Boilers 80-1 and 80-2.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v.

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.	iv. Monitoring/Testing: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall operate and maintain SO_2 CEMS for Boiler 80-3 and the CCUs and H_2S CMS for Boilers 80-1 and 80-2. B. The SO_2 CEMS for Boiler 80-3 and the CCUs shall conform to Performance Specification 2 of 40 CFR 60, Appendix "B," and the Quality Assurance/Quality Control (QA/QC) procedures shall be established in accordance with 40 CFR 60, Appendix "F." v. Recordkeeping: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A3)]* A. The Owner/Operator shall maintain SO2 CEMS data, calibration and audit results in accordance with Condition 3(b).	vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
4. Nitrogen Oxides (NO_X): **RESERVED**		
5. Carbon Monoxide (CO):		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall not cause or allow the emission of CO in excess of 470.2 TPY from the CCUs (Emission	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* Compliance with the CO Emission Standards shall be demonstrated by the following methods:	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 1, Condition 3 - Table 1.a.2.	A. Stack test based emissions factor and fuel flow rates for Boilers 80-1, 80-3 and the package boilers. B. CEMS for Boiler 80-2 and the CCUs. iv. Monitoring/Testing: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall operate and maintain CO CEMS for Boiler 80-2 and the CCUs. B. The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60, Appendix "F." C. For Boilers 80-1, 80-3 and the package boilers, the Owner/Operator shall conduct annually an EPA Reference Method 10 stack test for CO. The Owner/Operator may petition the Department to decrease the frequency of CO performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler.	A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	v. Recordkeeping: A. For Boiler 80-2 and the CCUs, the Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b). B. For Boilers 80-1 and 80-3 the Owner/Operator shall comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
6. Volatile Organic Compounds (VOC):		
i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of VOC in excess of 22.7 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.	iii. Compliance Method: Compliance with the VOC Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors and fuel flow rates for the boilers and CCUs. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. Annual	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-90/0288 (A9), APC-90/0289 (A7), APC-90/0290 (A8), APC-97/0503 (A7) and APC-2009/0089 (A1)]* B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
7. Sulfuric Acid Mist (H_2SO_4):		
i. Emission Standards: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. The Owner/Operator shall not cause or allow the emission of H_2SO_4 in excess of 235.4 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-1, 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. ii. Operational Limitations:	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* A. Compliance with the H_2SO_4 Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers and CCUs. B. Compliance for the boiler 80-3 and the CCUs shall be demonstrated by applying the stack test based SO_2 to H_2SO_4 conversion factor to the CEMS-	ix. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. x. Certification: That required by Condition 3(c)(3) of this

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.	monitored SO_2 emissions. C. Compliance for the Boilers 80-1 and 80-2 shall be demonstrated by applying the fuel gas monitored H_2S content to the H_2SO_4 conversion factor. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 8 stack test for H_2SO_4, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of H_2SO_4 performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-90/0288 (A9), APC-90/0289 (A7), APC-90/0290 (A8), APC-97/0503 (A7) and APC-2009/0089 (A1)]* B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. viii. Recordkeeping: Comply with "Conditions Applicable to	permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Multiple Pollutants" in Condition 3 - Table 1a.1.iv.	
8. Lead (Pb):		
i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of Pb in excess of 0.02 TPY from the CCUs (Emission Units 84-1 and 84-2) and Boilers 80-1, 80-2 and 80-3 combined on a rolling twelve (12) month basis. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.	iii. Compliance Method: Compliance with the Pb Emission Standard shall be demonstrated by firing desulfurized fuel gas or clean syngas in the boilers and either clean syngas or LSDF in the CCUs and natural gas in the duct burners. *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (A7)]* iv. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
9. Carbon Dioxide (CO_2):		
i. Operational Limitation: The annual electrical output to the grid resulting from the operation of [unit] shall not exceed 10 % of the annual gross electrical generation resulting from the operation of [unit]. The effect of this	iii. Compliance Methodology: *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]* Compliance with the operational limitation shall be based on monitoring data. Unless an alternative methodology is approved by the Department, the percent of electrical	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
operational limitation will enable the Company to qualify for the limited exemption provided in Section 1.1.2 of Regulation 1147. To the extent that the limited exemption is not applicable to Company operations for whatever reason, including the Company's voluntary decision not to qualify for the limited exemption on a going-forward basis, then this operational limitation, and any associated compliance methodology, testing, monitoring, record keeping and reporting requirements shall not apply. However, the Company must inform the Department in writing within 30 days of determining that it does not desire to qualify for the limited exemption. *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]* ii. Administrative Requirements: *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]* A. The Company and, to the extent applicable, the CO_2 authorized account representative of a unit exempt under 1.2.2.1 of Regulation 1147 shall comply with all the requirements of Regulation 1147 concerning all time periods for which the exemption is not in effect, even if such requirements arise, or	output to the grid for each affected unit shall be calculated as follows: $\% PEXP_{[u]} = (PEXP_{TOT} / PGEN_{TOT}) \times 100$ where: $\% PEXP_{[u]}$ = Percent of annual electrical output to the grid resulting from the operation of unit "u". $PEXP_{TOT}$ = Total annual power exported by the entire facility as measured by the "make/take" electrical meters $PGEN_{TOT}$ = Total power generated by the entire facility iv. Monitoring/Testing: *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]* The Company shall monitor the following parameters: A. Annual power generated by each Turbo generator unit. B. Annual power generated by direct firing of each CCU. C. Annual power output to the grid for the facility. v. Recordkeeping:	A. The Company shall report to the Department the amount of annual gross generation of each affected unit exempt under Section 1.2.2.1 of Regulation 1147 and the amount of annual gross generation supplied by the facility to the electric grid during the year by the following February 1. *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
must be complied with, after the exemption takes effect. B. On the earlier of the following dates, a unit exempt under 1.2.2.1 of Regulation 1147 shall lose its exemption: 1. the date on which the restriction on the percentage of annual gross generation that may be supplied to the electric grid described in 1.2.2.1 of Regulation 1147 is removed from the unit's permit or otherwise becomes no longer applicable in any year that commences on or after January 1, 2009; or 2. the first date on which the unit fails to comply, or on which the owners and operators fail to meet their burden of proving that the unit is complying, with the restriction on the percentage of annual gross generation that may be supplied to the electric grid described in 1.2.2.1 of Regulation 1147 during any year that commences on or after January 1, 2009. C. A unit that loses its exemption in accordance with 1.2.2.3.5 of Regulation 1147 shall be subject to the requirements of Regulation 1147. For the purpose of applying permitting	The company shall maintain following records for 10 years from the date the records are created: A. Annual power generated by each Turbo generator unit. B. Annual power generated by direct firing of each CCU. C. Annual power output to the grid for the facility. The 10-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Department. The Company shall bear the burden of proof that each affected unit met the restriction on the percentage of annual gross generation that may be supplied to the electric grid. *[Reference APC-90/0288 (A6), APC-90/0289 (A7), APC-90/0290 (A6), APC-90/0291 (A1) and APC-97/0503 (A5)]*	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
requirements under 3.0 of Regulation 1147, allocating allowances under 5.0 of Regulation 1147, and applying monitoring requirements under 8.0 of Regulation 1147, the unit shall be treated as commencing operation on the date the unit loses its exemption.		
g. Package Boilers: 4 Package Boilers 45-B-150, 45-B-250, 45-B-350 and 45-B-450 (99.99 mmBTU/hr input each, natural gas and desulfurized refinery fuel gas fired) (Emission Points 45-150, 45-250, 45-350 and 45-450)		
1. Conditions Applicable to Multiple Pollutants:		
i. Operational Limitations: *[Reference APC-2009/0089 (A1)]* A. Only desulfurized refinery fuel gas (RFG) with a hydrogen sulfide content less than 0.1 grain/dscf on a 3 hour rolling average basis and/or natural gas may be fired in the package boilers. B. The heat input to each package boiler shall not exceed 99.99 MMBtu/hr on a 24-hour rolling average basis.	ii. Compliance Method: A. Compliance with Operational Limitations (A) shall be based on recordkeeping. B. Compliance with Operational Limitation (B) shall be based on the H_2S CEMS. iii. Monitoring/Testing: A. The Owner/Operator shall continuously monitor and record the fuel flow rates for each package boiler. *[Reference APC-2009/0089 (A1)]* B. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H_2S in RFG before it is combusted in any fuel burning device. The H_2S monitor shall be located downstream of all process steps that increase the concentration of H_2S in RFG prior to its being combusted in any	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Owner/Operator shall: *[Reference :7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. Report to the Department within 14 days when any package boiler first fires refinery fuel gas. *[Reference APC-2009/0089 (A1)]* vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	fuel burning device. The monitoring instrument shall conform to the QA/QC requirements in 40 CFR 60, Appendix "F." The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B." The Relative accuracy evaluations shall be conducted using Method 11 of 40 CFR Part 60, Appendix "A." iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: *[Reference APC-2009/0089 (A1)]* A. Maintain records of all operating hours for each boiler clearly showing the hours of operation with different fuel types, i.e. hours of operation with natural gas, refinery fuel gas, and the amount of each fuel type consumed. B. Maintain records of the rolling 24-hour heating values of the fuels combusted.	
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. PM_{10} emissions from the package boilers shall not exceed 18.2 TPY. B. PM_{10} emissions shall not exceed 0.0104	iii. Compliance Method: *[Reference APC-2009/0089 (A1)]* A. Compliance with the Particulate Emission Standards shall be demonstrated by firing only natural gas	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
lb/MMBtu from each package boiler. C. TSP emissions from the package boilers shall not exceed 9.5 TPY. D. TSP emissions shall not exceed 0.0054 lb/MMBtu from each package boiler. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	or by using annual stack test based emission factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the package boilers. iv. Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually in accordance with Condition 3(b): *[Reference APC-2009/0089 (A1)]* 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM10, including H_2SO_4. 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM10 performance tests based on the results of any performance testing. 4. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.iv.	
3. Sulfur Dioxide (SO_2):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. SO_2 emissions from the package boilers shall not exceed 39.4 TPY. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	iii. Compliance Method: A. Compliance with the Emission Standard shall be based on recordkeeping. iv. Monitoring/Testing: None specified. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.iv.	
4. Nitrogen Oxides (NO_x):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j.	ii. Compliance Method: *[Reference APC-2009/0089 (A1)]* Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j shall be based on determination and use of a NOx emission factor based upon results of the most recent performance testing conducted in accordance with a protocol approved by	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	DNREC, or performed in accordance with applicable performance testing methods established and published by EPA and appropriate for measuring NOx emissions from the relevant source or any other method proposed by the Owner/Operator and approved by the Department. *[Reference: 7 **DE Admin Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring/Testing: A. Comply with "Facility Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1 dated 12/11/2000]* iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Facility Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j. *[Reference 7 **DE Admin Code** 1130 Sections 6.1.3.2 dated 12/11/00].*	
5. Carbon Monoxide (CO):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. CO emissions from the package boilers shall not exceed 59.6 TPY. B. CO emissions shall not exceed 0.034	iii. Compliance Method: *[Reference APC-2009/0089 (A1)]* A. Compliance with the CO Emission Standards shall be based on annual stack testing of each package boiler.	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
lb/MMBtu from each package boiler. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 10 stack test for CO. The Owner/Operator may petition the Department to decrease the frequency of CO performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-2009/0089 (A1)]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.iv.	
6. Volatile Organic Compounds (VOC):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. VOC emissions from the package boilers	iii. Compliance Method: *[Reference APC-2009/0089 (A1)]* A. Compliance with the VOC Emission	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
shall not exceed 2.5 TPY. B. VOC emissions shall not exceed 0.0014 lb/MMBtu from each package boiler. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	Standards shall be shall be demonstrated by firing only natural gas or by using annual stack test based emission factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the package boilers. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC. The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-2009/0089 (A1)]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 -	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Table 1.g.1.iv.	
7. Sulfuric Acid Mist (H_2SO_4):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. H_2SO_4 emissions from the package boilers shall not exceed 6.4 TPY. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	iii. Compliance Method: A. Compliance with the H_2SO_4 Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 8 stack test for H_2SO_4. The Owner/Operator may petition the Department to decrease the frequency of H_2SO_4 performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. *[Reference APC-2009/0089 (A1)]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Multiple Pollutants" in Condition 3 - Table 1.g.1.iv.	
8. Ammonia (NH_3):		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. NH_3 emissions from the package boilers shall not exceed 10 ppmvd @ 3% O_2 and 11.9 TPY. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	iii. Compliance Method: A. Compliance with the NH_3 Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: A. The Owner/Operator shall obtain weekly grab samples from a location downstream of the SCR using a Department approved method. The Owner/Operator may request the Department for approval of less frequent monitoring if 24 consecutive sampling events indicate the ammonia slip to be less than 5 ppmvd @ 3 % O_2. *[Reference APC-2009/0089 (A1)]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.iv.	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
9. Visible Emissions:		
i. Emission Standards: *[Reference APC-2009/0089 (A1)]* A. None of the package boilers shall emit visible air contaminants exceeding 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	iii. Compliance Method: A. Compliance with the Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: *[Reference APC-2009/0089 (A1)]* A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (B) below. 2. If no visible emissions are observed, no further action is required. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* B. If required under paragraph A, above, the Owner/Operator shall in accordance with Subsection 1.5(c) of Regulation No. 20 conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is	

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. *[Reference: 7 **DE Admin. Code** 1120, Section 1.5.3 dated 12/7/88]* v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Maintain a record of the daily qualitative stack observations.	

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Ravi Rangan, P.E.