Delaware City
Refining Company

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CMRRR No. 7009 0080 2634 7374

May 22, 2012

Mr. Ali Mirzakhalili
Division Director – Division of Air Quality
Delaware Department of Natural Resources and Environmental Control
Air Quality Management Section
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

Re: Delaware City Refining Company, LLC.
Regulation 1130 Operating Permit Renewal Application

Dear Mr. Mirzakhalili:

This is an application for renewal of the Regulation 1130 (Title V) State Operating Permit AQM-003/00016 – Part 1 (Renewal 1)(Revision 5), Part 2 (Revision 5) and Part 3 (Renewal 1)(Revision 5) (collectively "the Permit") for the Delaware City Refining Company refinery located in Delaware City, Delaware. This application is being submitted in accordance with Condition 2.l of the permit. The permit expires on May 26, 2013.

One (1) copy is being submitted to the United States Environmental Protection Agency in Philadelphia, Pennsylvania.

If you have any questions or comments regarding this letter, please contact me at 302-834-6053.

Sincerely,

Thomas S. Godlewski, Jr.
Senior Environmental Engineer

\Enclosures

cc: Section Chief
United States Environmental Protection Agency
Associate Director of Enforcement (3AP12)
1650 Arch Street
Philadelphia, PA 19103
CMRRR # 7009 0080 2634 7374

TITLE V OPERATING PERMIT
AQM-003/00016 – PART 1 (Renewal 1)(Revision 5)
AQM-003/00016 – PART 2 (Revision 5)
AQM-003/00016 – PART 3 (Renewal 1)(Revision 5)

APPLICATION FOR PERMIT RENEWAL

Delaware City
Refining Company

DELAWARE CITY REFINING COMPANY LLC
DELAWARE CITY REFINERY
DELAWARE CITY, DELAWARE
FACILITY ID #1000300016

MAY 2012

Application for Permit Renewal
Delaware City Refining Company, LLC
Title V Operating Permit AQM-003/00016 – Parts 1, 2, & 3

1. Introduction

This is an application for the renewal of Regulation No. 30 (Title V) State Operating Permits AQM-003/00016 – Part 1 (Renewal 1)(Revision 5), Part 2 (Revision 5) and Part 3 (Renewal 1)(Revision 5) (collectively the "Permit") (collectively, the "Permits") issued to The Delaware City Refining Company LLC ("DCRC") for operation of emission units at the Delaware City Refinery located in Delaware City, Delaware (the "Refinery"). This application is being submitted in accordance with Condition 2.l of the Permits.

2. Requested Permit Changes

In accordance with Regulation 1130, Section 5.1.2.4, DCRC is proposing several changes to the Permit through this renewal application. These changes include revisions proposed due to recently issued Regulation 1102 Operating Permits, and other revisions being proposed to clarify or correct perceived administrative errors in the permit.

DCRC is requesting to incorporate terms and conditions from issued Regulation 1102 Operating Permits which have not yet been incorporated into the Permit. Three Regulation 1102 Operating Permits are being proposed to be incorporated through this permit application:

- September 7, 2011, *APC-81/0828-OPERATION (Amendment 2)(PSD-NSR) – Crude Unit*
- September 7, 2011, *APC-81/0829-OPERATION (Amendment 8)(PSD-NSR) for the Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System*
- April 30, 2012, *APC-82/0981-OPERATION (Amendment 9)(NSPS) – Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide Boiler, and Wet Gas Scrubbing System.*

A summary of the terms and conditions of these permits and the necessary modifications to incorporate these permits are provided in Table 1-1 and the proposed revisions are shown in the Title V Permit Mark-Up contained in Attachment 1. A copy of each of the Regulation 1102 operating permits are included In Attachment 2.

Several process units have been modified through issuance of Regulation 1102 construction permits which have not yet, or just recently, received Regulation 1102 operating permits. The incorporation of these permits will be accomplished through a

future Title V Significant Permit Amendment Application, to be submitted within 12 months of the issued operating permit(s).

Changes being proposed to the permit for reasons other than incorporation of recently issued Regulation 1102 Operating Permits are summarized in Table 1-2 and the proposed revisions are shown in the Title V Permit Mark-Up contained in Attachment 1. For sources that have been demolished, permanently removed from service or where the associated permit term is obsolete, the proposed Title V renewal action is to remove the source or reserve/delete the obsolete condition of the permit.

It should be noted that only pages containing proposed revisions are included in the Title V Permit Mark-Up contained in Attachment 1. DCRC requests that all permit terms for which a modification is not specifically requested in this renewal application to be incorporated by reference into the renewed permit.

3. Compliance Assurance Monitoring (CAM)

An applicability determination of 40 CFR 64, Compliance Assurance Monitoring (CAM Rule) with respect to Title V Part 1 and Part 3 units has previously been performed and submitted through Title V permit renewal applications. As such, only Title V Part 2 units are included in the CAM Rule applicability determination included in this application. This applicability determination is included as Table 1-2. The results are present in Table 1-2. The determination was based on the following criteria:

1. The unit is subject to an emission limitation or standard for the applicable regulated air pollutant that is not exempt.

2. The unit uses an add-on control device to achieve compliance with an emission limitation or standard.

3. The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than major source threshold levels.

One Emission Unit, the Marine Vapor Recovery Unit, was determined to be applicable to the CAM Rule. Form AQM-1001EE is included as Attachment 5 to this application.

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-81/0828-OPERATION (Amendment 2) (PSD-NSR) – Crude Unit – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
No permit revisions required. Update permit revision references from A1 to A2 only.			

Permit APC-81/0829-OPERATION (Amendment 8) – Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Not applicable	None	None
1.2	Condition 2(i)	None	None
1.3	Condition 2(n)	None	None
1.4	Condition 2(d)	None	None
1.5	Not applicable	None	None
Emissions Limitations			
2.1.1.1	Condition 3 – Table 1 (Part 2) da.6.i.A	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.1.2	Condition 3 – Table 1 (Part 2) da.6.i.B	None	None
2.1.2.1	Condition 3 – Table 1 (Part 2) da.4.i.C	None	None
2.1.3.1	Condition 3 – Table 1 (Part 2) da.7.i.B	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.3.2	Condition 3 – Table 1 (Part 2) da. 2a.i.C.1 / da.2b.i.B.1	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-81/0829-OPERATION (Amendment 8) – Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
2.1.3.3	Condition 3 – Table 1 (Part 2) da.2a.i.C.2 / da.2b.i.B.2	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.4	Condition 3 – Table 1 (Part 2) da.3.i.A	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.5.1	Condition 3 – Table 1 (Part 2) da.5.i.A	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.5.3	Condition 3 – Table 1 (Part 2) da.	None	None
2.1.6.1	Condition 3 – Table 1 (Part 2) da.7.i.A.1	None	None
2.1.6.2	Condition 3 – Table 1 (Part 2) da. 7.i.A.2	None	None
2.1.7	Condition 3 – Table 1 (Part 2) da.8.i	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.8	Condition 3 – Table 1 (Part 2) da.9.i	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.9	Condition 3 – Table 1 (Part 2) da.10.i	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.2	Condition 3 – Table 1 (Part 2) da.	None	None
2.3	Condition 3 – Table 1 (Part 2) ob.2	None	None
2.4	Condition 3 – Table 1 (Part 2) da.1.i.G	None	None
2.5	Condition 3 – Table 1 (Part 2) da.1.i.E	None	None
Operational Limitations			

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-81/0829-OPERATION (Amendment 8) – Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.1	Condition 3 – Table 1 (Part 2) da.1.i.A	None	None
3.2	Condition 3 – Table 1 (Part 2) da.1.i.B	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
3.3	Condition 3 – Table 1 (Part 2) da.1.i.C	None	None
3.4	Condition 3 – Table 1 (Part 2) da.1.i.D	None	None
3.5	Condition 3 – Table 1 (Part 2) da.1.i.H	Remove reference to "Premcor" in the permit condition.	See Attachment 1 – Permit Markup
3.5.1.1	Condition 3 – Table 1 (Part 2) da.1.i.H.1.a	None	None
3.5.1.2	Condition 3 – Table 1 (Part 2) da.1.i.H.1.b	None	None
3.6-3.7	Condition 3 – Table 1 (Part 2) ob.3.i.A	None	None
3.8	Condition 3 – Table 1 (Part 2) ob.4.i.A	None	None
3.9	Not applicable	None	None
Compliance Methodology			
4.1	Condition 3 – Table 1 (Part 2) da.2a.iii.C; da.2b.iii.B,C; da.7.ii; da.8.ii; da.9.ii; da.10.ii	None	None
4.2	Condition 3 – Table 1 (Part 2) da.6.ii.A	None	None
4.3	Condition 3 – Table 1 (Part 2) da.6.ii.B	None	None
4.4	Condition 3 – Table 1 (Part 2) da.4.ii.C; da.3.ii; da.5.ii.A; da.1.ii.A	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-81/0829-OPERATION (Amendment 8) – Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
4.5	Condition 3 – Table 1 (Part 2) da.1.ii.A	None	None
4.6	Condition 3 – Table 1 (Part 2) ob.3.ii	None	None
4.7	Condition 3 – Table 1 (Part 2) da.6.ii.B	None	None
4.8	Condition 3 – Table 1 (Part 2) ob.4.ii	None	None
Testing and Monitoring Requirements			
5.1	Not applicable	None	None
5.2	Condition 3 – Table 1 (Part 2) da.6.iii.A	None	None
5.3	Not applicable	None	None
5.4	Condition 3 – Table 1 (Part 2) da.3.iii.B	None	None
5.5	Condition 3 – Table 1 (Part 2) da.4.iii.B	None	None
5.6.1	Condition 3 – Table 1 (Part 2) da.7.iii	None	None
5.6.2	Condition 3 – Table 1 (Part 2) da.2a.iv.A.2	None	None
5.6.3	Condition 3 – Table 1 (Part 2) da.2a.iv.A.3	None	None
5.6.4	Not applicable	None	None
5.7	Condition 3 – Table 1 (Part 2) da.5.iii.B	None	None
5.8	Condition 3 – Table 1 (Part 2) da.9.iii; da.10.iii	None	None
5.9	Condition 3 – Table 1 (Part 2) da.5.iii.A	None	None
5.10	Condition 3 – Table 1 (Part 2) da.1.iii.B	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-81/0829-OPERATION (Amendment 8) – Fluid Coking Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System – September 7, 2011

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
5.11	Condition 3 – Table 1 (Part 2) da.11.iii.D	None	None
Record Keeping Requirements			
6.1	Condition 3 – Table 1 (Part 2) da.1.iv	None	None
6.2	Condition 3 – Table 1 (Part 2) da.1.iv.H	None	None
Reporting Requirements			
7.1	Condition 2.k	None	None
7.2	Condition 2.b	None	None
7.3	Condition 3 – Table 1 (Part 2) da.1.v.A	None	None
7.4	Condition 3 – Table 1 (Part 2) da.6.v.B	None	None
7.5	Condition 3 – Table 1 (Part 2) da.1.v.B	None	None
7.6	Condition 2.a.3	None	None
Administrative Conditions			
8.1	Condition 2.k	None	None
8.2	Not applicable	None	None
8.3	Condition 2.b	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-82/0981-OPERATION (Amendment 9) (NSPS) – Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide Boiler, and Wet Gas Scrubbing System – April 30, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
Update permit revision references from A7 to A9. No other revisions required except:			
5.9.4	Condition 3 – Table 1 (Part 2) e.10.iii	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup

Table 1-2: Summary of Suggested Permit Language Changes

Title V Permit Condition	Current Title V Permit Language	Proposed Title V Permit Language	Rationale
Condition 3 – Table 1 (Part 2) ba.vi.A	*A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on June 30 and December 31, respectively each year.*	*A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on May 19 and November 19, respectively each year.* (See Title V Mark-up)	Believed to be a typographic error. The proposed change is consistent with the historic submission schedule for this report. The underlying Regulation 1102 permit (APC-81-0832) contains the May 19 and November 19 reporting periods reference.
Condition 3 – Table 1 (Part 2) bb.vi.B	*... The startup, shutdown, and malfunction report shall be delivered or postmarked by the January 22 and July 22 of each year for the periods of May 1 - November 30 and December 1 - June 31 respectively....*	*... The startup, shutdown, and malfunction report shall be delivered or postmarked by January 30 and July 30 of each year for the periods of July 1 - December 31 and January 1 - June 30 respectively....*(See Title V Mark-up)	Believed to be a typographic error. The reporting periods currently contained in the permit overlap (May and June are contained in both periods), contain a nonexistent day (June 31). The proposed change is consistent with the specified schedule set forth in 40 CFR 63.10(d)(5)(i).
Condition 3 – Table 1 (Part 2) m.5.ii.B	*The minimum hourly average pH of the scrubbing liquid exiting the scrubber shall be 6.56.*	*The minimum daily average pH of the scrubbing liquid exiting the scrubber shall be 6.56.* (See Title V Mark-up)	Believed to be a typographic error dating back to Reg. 1102 permit. Condition 3 – Table 1 (Part 2) m.iv.B.2 (Monitoring / Testing provision) requires the ***daily*** average pH to be maintained above the operating limit established during the performance test. The minimum liquid-to-gas ratio is also a daily average. Also, the Operating, Maintenance and Monitoring Plan submitted by Premcor to EPA in September 2005 also proposes a ***daily*** average pH as a Control Device Operating Limit (see Table 3-1).

Table 1-3: Compliance Assurance Monitoring (CAM) Applicability Determination - Part 2 Units

EU	Emission Point	Emissions Unit Description	Subject to an CAM Applicable Emission Limitation									Uses a Control Device? (Y/N, Pollutants) [2]	Uses a Continuous Compliance Method? (Y/N) [3]	Potential to Emit (PTE), TPY									Comments
			NOx	SO_2	PM	VOC	CO	Pb	H_2S/ TRS/ H_2SO_4	NH_3	HAPs			NOx	SO_2	PM	VOC	CO	Pb	H_2S	NH_3	HAPs	
														Major Source Threshold, TPY									
														100	100	100	100	100	100	100	100	N/A	
10		WWTP Oily Sewer System	N	N	N	Y	N	N	N	N	Y	Y (VOC, HAP)	N/A	N/A	N/A	N/A	5	N/A	N/A	N/A	N/A	1 2	Not a CAM affected unit because PTE is not greater than major source thresholds
10		API/CPI Separators, Equalization Tank, Spill Diversion Tanks, Floatation Clarifier, Flocculation Tanks and Flash Mix Tank	N	N	N	Y	N	N	N	N	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it does not use a control device to achieve compliance
10	10-1	WWTP - Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU)	Y	Y	Y	Y	N	N	N	N	N	Y (VOC)	N	N/A	N/A	N/A	12 9	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because PTE is not greater than major source thresholds
10	N/A	Gasoline Dispensing Facility	N	N	N	Y	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it does not use a control device to achieve compliance
15	15-1 15-2	Marine Vapor Recovery (MVR) System, Emissions Points 15-1 and 15-2	N	N	Y	Y	Y	N	N	N	N	Y (VOC)	N	N/A	N/A	N/A	3,436	N/A	N/A	N/A	N/A	N/A	**CAM APPLICABLE FOR VOC.**
21	21-1	Crude Unit, Atmospheric heater 21-H-701, and vacuum heater 21-H-2	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2010																				
22	22-1	Fluid coke handling and storage facility	Fluid Coke Handling and Storage replaced with new system in 2011 An operating permit for this facility has not yet been issued A CAM evaluation will be included in the Significant Permit Modification which incorporates this facility into the Title V permit																				
	22-2	Fluid Coking Unit (FCU), FCU Wet Gas Scrubber (WGS), and Selective Non-Catalytic Reduction System (SNCR), FCU Start Up Heater 22-H-1, FCU CO Boiler (22-H-3), and FCU Back Up Incinerator	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2009																				
23	23-1	FCCU start up heaters 23-H-1A and 1B, FCCU, CO Boiler (22-H-3), wet gas scrubber, alky merox spent air, and poly merox spent air	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2009																				
GP	Fugitives	Refinery gas plant	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it has no CAM applicable emissions limit
25	25-4 and 25-5	CNHT reactor charge heater 25-H-401, CNHT reboiler heater 25-H-402, CNHT unit, reformer, butamer unit	Y	Y	Y	Y	Y	N	N	N	N	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it has no CAM applicable emissions limit
26	Fugitives	Alkylation Unit	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it has no CAM applicable emissions limit
27	Fugitives	Polymerization Unit	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it has no CAM applicable emissions limit
25	Tier 2 Project	Tier 2 Gasoline Project	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2009																				
28	28-1 and 28-2	Sulfur recovery area inclusive of 2 Claus sulfure recovery units (SRU I and SRU II), Shell Claus Offgas Treatment Units (SCOT I and II)	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2009																				
37	37-1A and 37-1B	Hydrogen Plant and reformer heater 37-H-1A/B	CAM applicability and plan submitted with Significant Permit Modification application submitted in February 2009																				
42	42-1 and 42-2	CCR reformer unit, platform heater 42-H-1,2,3 and CCR reboiler 42-H-7	Y	Y	Y	Y	Y	N	N	N	N [1]	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it does not use a control device to achieve compliance
45	45-1 and 45-2	Refinery Utilities, North & South Flares and Gas Recovery System, Spent Caustic Stripper	N	N	N	N	N	N	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because it has no CAM applicable emissions limit

[1] Emissions limitations which were proposed after Nov 15, 1990 pursuant to section 111 (NSPS) or 112 (NESHAPS) of the Act and are exempt from CAM requirements - 40 CFR 64 2(b)(i)
[2] Unit must use a control device to achieve compliance with any such limitation or standard - 40 CFR 64.2(a)(2)
[3] Emissions limitations for which a permit specifies a continuous compliance method are exempt from CAM requirements - 40 CFR 64 2(a)(vi)

ATTACHMENT 1

Title V Permit Mark-Up

- Condition 3 – Table 1 (Part 1) ba - Benzene Emissions from Benzene Storage Tanks...and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (page 29)

- Condition 3 – Table 1 (Part 1) bb - Volatile Organic Compound (VOC) Emissions from Benzene Storate Tanks...and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (pages 35-36)

- Condition 3 – Table 1 (Part 2) c - Crude Unit (pages 171-178)

- Condition 3 – Table 1 (Part 2) da - Fluid Coking Unit (pages 179 – 198)

- Condition 3 – Table 1 (Part 2) e - Fluid Catalytic Cracking Unit (pages 204 – 220)

- Condition 3 – Table 1 (Part 2) m - Continuous Catalytic Reformer (pages 245 – 251)

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	indicator is not operating; b. Where a seal mechanism is used to comply with (iv)(B)(5)(b) the Company shall record whether the monthly visual inspection of the seals or closure mechanisms has been done and record when the seal mechanism is broken, the bypass line valve position has changed, or the key for the lock-and-key has been checked out, and records of any car seal that has broken; 4. For each visual inspection conducted in accordance with (iv)(B)(1) & (iv)(B)(2) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. *[Reference 7 DE Admin Code 1130 Section 6.1.3.1.2 dated 12/11/00]*	
bb. **Emission Unit 32**: Volatile Organic Compound (VOC) Emissions from Benzene Storage tanks 331-TC-1, 332-TC-1, 570-TC-10; and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (Emission Point 32-1) (Volatile Organic Compounds (VOCs) SOCMI HON Conditions for Equipment Leaks)		
1. General Standards: i. Emission Standard: A. The provisions apply to the pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or closed vent systems that operate in HAP service 300 hours or more during the calendar year. *[Reference: 40 CFR 63, Subpart H, §63.160(a) dated 7/1/05]* B. Service definitions:	iii. Compliance Method: Determination of whether such operation and maintenance procedures required by the Operational Limitations are being used will be based on information available to the Department which may include, but not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan), review of operation and maintenance records, and inspection of the source. *[Reference 40 CFR 63.6(e)(1)(i) dated 7/1/05]*	vi. Reporting Requirement: 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. Periodic startup, shutdown, and malfunction reports. If actions taken by the Owner/Operator during a startup, shutdown, or malfunction of an affected

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
1. In gas/vapor service means that a piece of equipment in organic hazardous air pollutant service contains a gas or vapor at operating conditions. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/05]* 2. In heavy liquid service means that a piece of equipment in organic hazardous air pollutant service is not in gas/vapor service or in light liquid service. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/05]* 3. In light liquid service means that a piece of equipment in organic hazardous air pollutant service contains a liquid that meets the following conditions: a. The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 deg. C, b. The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 deg. C is equal to or greater than 20 percent by weight of the total process stream, and c. The fluid is a liquid at operating conditions. Note: Vapor pressures may be determined by the methods described in 40 CFR 60, Subpart VV, §60.485(e)(1) dated 7/1/00. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/00]* ii. Operational Limitations: A. Operation and maintenance: 1. At all times, including periods of startup,	iv. Monitoring/Testing: A. Each piece of equipment in a process unit to which this section applies shall be identified such that it can be distinguished readily from equipment that is not subject to this section. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification. *[Reference: 40 CFR 63, Subpart H, §63.162(c) dated 7/1/05]* B. Equipment that is in vacuum service is excluded from the requirements of this section. *[Reference: 40 CFR 63, Subpart H, §63.162(d) dated 7/1/05]* C. *Reserved.* D. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (ii)(B) of this section), review of operation and maintenance records, and inspection of the source. *[Reference: 40 CFR 63, Subpart A, §63.6(e) dated 7/1/00]* 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]*	source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, the Owner/Operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the Owner/Operator or other responsible official who is certifying its accuracy, that shall be submitted to the Department semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by January 30 and July 30 of each year for the periods of July 1 - December 31 and January 1 - June 30 respectively. This report may be submitted simultaneously with the periodic report required by Section 12(v) of this unit. *[Reference: 40 CFR 63, Subpart A, §63.10(d) dated 7/1/00]* C. Immediate startup, shutdown, and malfunction reports. Any time an action taken by an Owner/Operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the Owner/Operator shall report the

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Table 1-2: Summary of Suggested Permit Language Changes

Title V Permit Condition	Current Title V Permit Language	Proposed Title V Permit Language	Rationale
Condition 3 – Table 1 (Part 2) ba.vi.A	*A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on June 30 and December 31, respectively each year.*	*A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on May 19 and November 19, respectively each year.* (See Title V Mark-up)	Believed to be a typographic error. The proposed change is consistent with the historic submission schedule for this report. The underlying Regulation 1102 permit (APC-81-0832) contains the May 19 and November 19 reporting periods reference.
Condition 3 – Table 1 (Part 2) bb.vi.B	*... The startup, shutdown, and malfunction report shall be delivered or postmarked by the January 22 and July 22 of each year for the periods of May 1 - November 30 and December 1 - June 31 respectively....*	*... The startup, shutdown, and malfunction report shall be delivered or postmarked by January 30 and July 30 of each year for the periods of July 1 - December 31 and January 1 - June 30 respectively....*(See Title V Mark-up)	Believed to be a typographic error. The reporting periods currently contained in the permit overlap (May and June are contained in both periods), contain a nonexistent day (June 31). The proposed change is consistent with the specified schedule set forth in 40 CFR 63.10(d)(5)(i).
Condition 3 – Table 1 (Part 2) m.5.ii.B	*The minimum hourly average pH of the scrubbing liquid exiting the scrubber shall be 6.56.*	*The minimum daily average pH of the scrubbing liquid exiting the scrubber shall be 6.56.* (See Title V Mark-up)	Believed to be a typographic error dating back to Reg. 1102 permit. Condition 3 – Table 1 (Part 2) m.iv.B.2 (Monitoring / Testing provision) requires the ***daily*** average pH to be maintained above the operating limit established during the performance test. The minimum liquid-to-gas ratio is also a daily average. Also, the Operating, Maintenance and Monitoring Plan submitted by Premcor to EPA in September 2005 also proposes a ***daily*** average pH as a Control Device Operating Limit (see Table 3-1).

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	iv. Record keeping: 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 Sections 6.1.3.1.2 dated 12/11/00]* A. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request.	
ba. **Emission Unit 32**: Benzene Emissions From Benzene Storage Tanks 331-TC-1, 332-TC-1, 570-TC-10; and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (Emission Point 32-1)		
1. Benzene Emissions: i. Emission Standards for Unit 32-H-101 when waste is introduced into the flame zone: A. Process heater 32-H-101 shall reduce benzene emissions to an exit concentration of not greater than 20 ppmv (dry) corrected to 3 percent O_2 during all benzene loading cycles. *[Reference: 40 CFR Part 63.126(b)(1), 7/1/05 ed.]* B. Unit 32-H-101 shall reduce the inlet emissions of total organic HAP emissions from the storage tanks 331-TC-1, 332-TC-1 and 570-TC-10 by 95 weight percent or greater. *[Reference: 40 CFR 61.271(c) dated 12/14/2000 and 40 CFR Part 63.119(e)(1), 7/1/05 ed.]*	iii. Compliance Method: *[Reference **APC-81/0832** and 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 dated 12/11/00]* A. Compliance with Emission Standard (A) and Operational Limitation (A) is based upon continuously monitoring the firebox temperature of unit 32-H-101 during all benzene loading cycles unless the Owner/Operator is complying with operational limitation B. B. Compliance with Emission Standard (B) shall be based on compliance with Compliance Method (A) in addition to continuously monitoring the firebox temperature in Unit 32-H-101 when it is serving as the control device for the closed vent system of the storage tanks unless the Owner/Operator is complying with operational limitation B. C. Compliance with Operational Limitation (B)	vi. Reporting Requirement: 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. A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on May 19 and November 19, respectively each year. B. All periods when Unit 29-H-101 is used in place of Unit 32-H-101. This notification may be submitted quarterly. C. Storage vessel reports in accordance with 40 CFR Part 63.122 and transfer operations

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	observations and Method 9 evaluations when emissions are observed.	
c. Emission Unit No. 21: Crude Unit; Crude Unit Atmospheric Tower Heater 21-H-701, and Crude Unit Vacuum tower Heater 21-H-2. Emission Point 21-1		
1. **Conditions Applicable to Multiple Pollutants:** i. Operational Limitation: A. The throughput to the crude unit shall not exceed 191,100 BPD on a twelve month rolling average basis. *[Reference: APC-81/0828 (A2)]* B. RESERVED C. RESERVED D. The emission standards in conditions (c)(2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped. *[Reference: Permit:APC-95/0520 (A 3) and Permit:APC-95/0784 (A2)]*	ii. Compliance Method: Compliance with the Operational Limitations shall be based on monitoring/testing and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall continuously monitor the following: 1. Daily fresh feed throughput to the Crude unit and determine the rolling 12 month average in barrels per calendar day. 2. Monitor the fuel usage by 21-H-701 and 21-H-2. B. RESERVED. iv. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Rolling 12 month average throughout of fresh feed to the crude unit in MBPD. B. RESERVED. C. Type of fuel combusted in 21-H-701 and 21-H-2 and fuel usage. D. The rolling 12-month total emissions for each pollutant.	v. 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]* vi. 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].*
2. Particulate Matter:	iii. Compliance Method:	vi. Reporting:

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
i. Emission Standard: For 21-H-701 and 21-H-2 combined: PM_{10} emissions shall not exceed 0.02 lb/mmBtu and 60.9 tons in any rolling twelve month period (inclusive of H2SO4 emissions). *[Reference: 7 **DE Admin. Code** 110 4 Section 2.1 dated 2/1/81 and Permit:APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* ii. Operational Limitation: A. With the exception of Operational Limitation (B) process heaters 21-H-701 and 21-H-2 shall only combust natural gas or desulfurized RFG. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]* B. 21-H-701 may combust process vent gas from the Merox system oxidizer column 21-C-104. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	A. Compliance with the Emission Standard shall be based on the stack test based emission factor and the rolling 12 month fuel usage. *[Reference :7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Monitoring/Testing: *[Reference: APC-95/0570 (A2)] and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. RESERVED. C. RESERVED D. The Owner/Operator shall conduct a stack test every five years to determine the emission factor in terms of lb/mmBtu in accordance with Methods 5B/202, or any other testing methodology approved by the Department. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv.	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].*
3. Sulfur dioxide (SO_2): i. Emission Standards: A. Except as allowed by Operational Limitation 2.ii.A. above, the Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains H_2S in excess of 0.1 grain/DSCF on a	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard A shall be based on the H_2S CEMS for the RFG. B. Compliance with Emission Standard B shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content of the refinery fuel gas as measured by a TRS analyzer.	v. 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]* vi. Certification:

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
three hour rolling average. *[Reference 7 **DE Admin. Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/17/2000]* B. SO_2 emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.063 lb/mmBtu and 80.4 tons in any rolling twelve month period. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]*	iii. Monitoring/Testing: *[Reference : 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The H_2S content in RFG shall be continuously monitored using CMS. B. The H_2S CMS shall comply with Performance Specification 7 of 40 CFR 60, Appendix "B". C. Quality Assurance requirements for the H_2S CMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". D. 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". iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Fuel usage, rolling average 12 month sulfur content as measured by H_2S CEMS and all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits. B. The rolling 12-month TRS concentration in fuel gas.	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): i. Emission Standard:	ii. Compliance Method: A. Compliance with the Emission Standards shall be	v. Reporting: That required by Conditions 2(a),

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. For 21-H-701 and 21-H-2 combined: NO_x emissions shall not exceed 0.04 lb/mmBtu on a 3 hour rolling average and 20 lb/hour. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2) and 7 **DE Admin Code** 1142, Section 2.3.2 dated 04/11/11]* B. For 21-H-701 and 21-H-2: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j C. RESERVED	determined by CEMS. The Owner/Operator shall operate and maintain the CEMS to assure maximum data capture and at no time shall the data capture fall below eighty-five percent (85%) of the Process Heaters daily operating hours and eighty-five percent (85%) of the operating days per month. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* B. 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 dated 12/11/00]* iii. Monitoring/Testing: The CEMS for NO_x and diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_x and diluent CEMS shall be established in accordance with 40 CFR, Part 60, Appendix "F". *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): Owner/Operator shall maintain the following records: *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* 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 6.1.3.2 dated 12/11/00]* B. RESERVED C. RESERVED D. The hourly and rolling 12-month total emissions for NO_x shall be calculated and recorded for each month	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]* vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	E. CEMS data calibration and audit results. F. F-factor adjustments and the actual daily data capture.	
5. Carbon Monoxide (CO): i. Emission Standard: A. CO emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.03 lb/mmBtu and 91.4 tons in any rolling 12 month period. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]*	ii. Compliance Method: Compliance with the emission standard shall be based on the stack test based emission factor and the rolling twelve month fuel usage. *[Reference: Permit:APC-95/0570 (A2)]* iii. Monitoring/Testing: *[Reference: Permit: APC-95/0570 (A2) and 7* ***DE Admin. Code*** *1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. The Owner/Operator shall conduct stack Tests at 5 year intervals to determine the emission factor in terms of lb/mmBtu in accordance with Reference Method 10 in Appendix "A" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv.	v. 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]* vi. 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. Volatile Organic Compounds (VOCs): i. Emission Standard: A. VOC emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.003 lb/mmBtu and 9.2 tons in any rolling twelve month period. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* B. The leak detection and repair requirements to control fugitive	ii. Compliance Method: A. Compliance with the Emission Standard (A) shall be based on the stack test based emission factor and the rolling twelve month fuel usage. *[Reference: APC-95/0570 (A2)]* B. Compliance with the emission standard B shall be based on the standards in 40 CFR subpart GGG and 40 CFR Part 63 subpart CC, as applicable. Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR	v. 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]* vi. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7* ***DE Admin.***

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63, subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the Crude Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. *[Reference: APC-2004/0828 (A2)]*	60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. *[Reference: APC-2004/0828 (A2)]* C. RESERVED iii. Monitoring/Testing: *[Reference: APC-95/0570 (A2) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. The Owner/Operator shall conduct a stack test every 5 years to determine the emission factor in terms of lb/mmBtu in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60 and shall determine and report results as total hydrocarbons or shall conduct such other testing methodology and/or report results as approved by the Department.	***Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00].* None in addition to those required by Condition 3(c)(3) of this permit.
ii. Operational Limitation: RESERVED	iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv. and maintain the following records: *[Reference: APC-95/0570 (A2) and 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. RESERVED B. RESERVED C. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. D. RESERVED	
7. Visible Emissions: The Owner/Operator shall not cause or	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units,	v. Reporting Requirement: That required by Conditions 2(a),

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	monitoring and testing requirements, and record keeping. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: 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. B. If required under paragraph A 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 & 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].* iv. Recordkeeping *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. A record of daily qualitative emission observations and Method 9 evaluations when emissions were observed.	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]* 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].*
8. Sulfuric Acid (H_2SO_4) i. Emission Standard:	ii. Compliance Method: Compliance with the Emission Standard shall be based on	v. Reporting Requirement: That required by Conditions 2(a),

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
H_2SO_4 emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.002 lb/mmBtu and 2.4 TPY. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]*	the rolling twelve month fuel usage and the rolling twelve month average sulfur content in the refinery fuel gas as measured by a TRS analyzer. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* iii. Monitoring/Testing: 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-95/0570 (A 3) and Permit:APC-95/0784 (A2)]*	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]* 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].*
9. Ammonia (NH_3) i. Emission Standard: NH_3 emissions from 21-H-701 and 21-H-2 combined shall not exceed 10 ppmvd @ 3% O_2 and 16.5 TPY. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the Monitoring/Testing requirements. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* iii. Monitoring/Testing: *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* 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. If at any time the grab samples indicate an NH_3 slip greater than 10 ppmvd @ 3% O_2, the Department reserves the right to require the Owner/Operator to conduct more frequent sampling and may include the requirement to install a	v. Reporting Requirement: 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]* 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	CEMS.	
da. Emission Unit No. 22: Fluid Coking Unit (FCU): FCU, Wet Gas Scrubber (WGS), and Selective Non-Catalytic Reduction System (SNCR) (Emission point/s 22-2 or 22-3), FCU Start Up Heater 22-H-1 (Emission point/s 22-2 or 22-3), FCU Selas Steam Superheater 22-H-2 (Emission point 22-4), FCU Carbon Monoxide Boiler 22-H-3 (Emission point 22-2) and FCU Back Up Incinerator 22-H-4 (Emission point 22-3)		
1. Conditions Applicable to Multiple Pollutants: i. Operational Limitations *[Reference Permit: APC-81/0829 (A8)]*: A. The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Owner/Operator determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in Delaware Air Quality Regulation No. 1, then the Owner/Operator shall submit a notification to the Department in advance of achieving a throughput in excess of the level	ii. Compliance Method: A. Compliance with Operational Limitations A, B, C, D, E and F shall be based on monitoring/testing and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. RESERVED iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The Owner/Operator shall monitor the FCU throughput, the calculated coke burn rates and	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 and 40 CFR 61.357 dated 1/7/93 and Permit: Permit: APC-81/0829 (A8)]* A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Owner/Operator may operate the FCU at the throughput value addressed in the notification made under this Condition. B. With the exception of the FCU burner Offgas, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm). C. Except as provided in operational limitation E, the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating. D. During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a	turndown rates as applicable. *[Reference Permit: APC-81/0829 (48)]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. CEMS data, calibration and audit results. B. The type of fuel combusted in the FCU COB, 22-H-1, 22-H-2 and 22-H-4 and the daily COB fuel usage. C. The coke burn rate and FCU throughput, both on a rolling twelve month average basis. D. RESERVED. E. RESERVED. F. Backup incinerator operating hours, furnace temperature, percent O_2, and opacity. G. Bypass stack SO_2 emissions as calculated according to Condition 3 - Table 1.da.1.H. H. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3 - Table 1.da.	required reports shall contain the following information: 1. RESERVED 2. RESERVED 3. RESERVED 4. A summary of all periods when the FCU WGS has been bypassed 5. Hourly SO_2 emissions during periods when the FCU WGS was bypassed 6. RESERVED 7. Back up incinerator operating data required pursuant to recordkeeping condition F. B. Quarterly NO_x, SO_2 and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 31, April 30, July 31 and October 31 of each calendar year and shall include the following: 1. 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.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
planned shut down of the FCU, the FCU COB or the WGS, the Owner/Operator shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS. E. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Owner/Operator, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the operational limits shown below by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS.		2. 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. 3. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. vi. 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].*

FCU Feed Rate (KBD)	FCU Feed Wt. % S	SO_2 Emissions (lb/hour)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
F. **[RESERVED]** G. The Emission Standards in Condition 3 - Table 1.da.2 through da.10 below shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The Emission Standards shall apply to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hour from feed out of the FCU. In lieu of the Emission Standards, the following Emission Standards shall apply during planned start ups and shut downs of the FCU: 1. VOC – 1.6 lb/hr 2. H_2SO_4 – 58 lbs/hr 3. TSP – 47.1 lbs/hr 4. PM_{10} – 133.3 lbs/hr 5. SO_2 – 95 lbs/hr 6. CO – 415 lbs/hr 7. Ammonia – 2 lbs/hr H. This Permit does not authorize		

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
emissions exceeding the limits set forth in Condition 3 - Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should no subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions		

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Owner/Operator has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether the Owner/Operator has reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.		

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
1. Should the Owner/Operator operate the backup incinerator, the Owner/Operator shall abide by the following: a. Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 seconds; and b. Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("dscf") shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O_2 and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.		
2a. Particulate Matter: i. Emission Standard: A. For 22-H-1 and 22-H-2: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of	iii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on the fuel type and quality. B. Compliance with the Emission Standard (B) shall be based on monitoring/testing and recordkeeping	vi. Reporting Requirement: 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: **DE Admin. Code** 1104 Section 2.1 dated 2/1/81]* B. For 22-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]* C. For the FCU WGS: 1. TSP emissions shall not exceed 60.9 lb/hour and 266.8 TPY, and 2. PM_{10} emissions (including TSP and H_2SO_4) shall not exceed 128.4 lb/hour and 562.4 TPY. *[Reference Permit: APC-81/0829 (A8)]* ii. Operational Limitation: With the exception of process off gas in units 22-H-3 and 22-H-4 only desulfurized RFG may be combusted in units 22-H-1, 22-H-2, 22-H-3 and 22-H-4. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	requirements. C. Compliance with Emission Standard (C) shall be based upon stack testing conducted in accordance with Condition 3 - Table 1.da.2a.iv.A. D. Compliance with the Operational Limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: *[Reference: APC-81/0829 (A8) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall conduct annual performance testing of the WGS, unless the Department approves less frequent testing, as follows: 1. RESERVED 2. For TSP, testing in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. 3. For PM_{10} (including TSP and H_2SO_4), testing shall be in accordance with Methods 5B/202, or other testing methodology approved by the Department. v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	vii. 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].*
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
i. Emission Standard A. For 22-H-3: The Owner/Operator	ii. Compliance Method Compliance shall be demonstrated by records of the	vi. Reporting A. Quality Improvement Plan (QIP)

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]* B. For the FCU WGS: 1. TSP emissions shall not exceed 60.9 lb/hour and 266.8 TPY, and 2. PM_{10} emissions (including TSP and H_2SO_4) shall not exceed 128.4 lb/hour and 562.4 TPY. *[Reference APC-81/0829 (A8)]* ii. Operational Limitations A. Indicators *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. Scrubber pressure drop shall be used as the primary indicator 2. Scrubber pump discharge shall be used as the secondary indicator B. Indicator Ranges *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. For the primary indicator: Minimum delta-P of 6 inches of water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period. 2. For the secondary indicator: Minimum discharge pressure satisfying the less stringent of: 115 psig or	required monitoring. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 dated 12/11/00 and 6.2.1 dated 12/11/00]* iii. Monitoring *[Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]* A. Data Representativeness *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* 1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab Droplet Separators. 2. For the secondary indicator: pressure drop indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps. B. Verification of Operational Status for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* C. QA/QC Practices for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* D. Frequency for both indicators shall be continuous. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* E. Data Collection Procedures for both indicators shall be collected and stored via the Refinery Process Historian *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* F. Averaging Period for both indicators: On a 1-minute basis. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* iv. Testing *[Reference: 40 CFR Part 64.6 dated 10/22/97]* None in addition to those required by Condition 3 - Table 1da.2a.iv.A.	1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. *[Reference: 40 CFR Part 64.7(e) dated 10/22/97]* 2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit's operating time for a reporting period. *[Reference: 40 CFR Part 64.8(a) dated 10/22/97]* B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values. *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* C. The report required by Condition 3(c)(2) of this permit shall also contain the following information: *[Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]* 1. Summary information on the number, duration, and cause of excursions or exceedances; 2. The corrective actions taken after an excursion or exceedance; 3. Summary information on the number, duration, and cause of monitor downtime

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
95 % of the average discharge pressure recorded during performance testing as specified in for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour period. *[Reference: APC-81/0829 (A&)]* C. Excursions *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an inspection, corrective action, and a reporting requirement. *[Reference: 40 CFR Part 64.7(d) dated 10/22/97]* D. Monitoring/Measurement Approach *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]* 1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the	v. Record Keeping *[Reference: 40 CFR Part 64.9(b) dated 10/22/97]* A. The Company shall maintain records of the following: 1. Monitoring data; 2. Monitor performance data; 3. Corrective actions taken; 4. Any written quality improvement plan (QIP) required pursuant to 64.8; 5. Any activities undertaken to implement a QIP; and 6. All supporting information used to demonstrate compliance.	incidents; and 4. If triggered, a description of the actions taken to implement the QIP. vii. Certification None in addition to that required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
quench/pre-scrubber recirculation pumps discharge. E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. *[Reference: 40 CFR Part 64.7(b) dated 10/22/97]* F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in		

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
part by poor maintenance or careless *operation are not malfunctions.* *[Reference: 40 CFR Part 64.7(c) dated 10/22/97]*		
3. Sulfur dioxide (SO_2): i. Emission Standards: A. SO_2 emissions shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 182.3 TPY. *[Reference APC-81/0829 (A8)]*	ii. Compliance Method: *[Reference : 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on CEMS. iii. Monitoring/Testing: *[Reference APC-81/0829 (A8) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. The CEMS for SO_2 and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the SO_2 and O_2 CEMS shall be established in accordance with the procedures in 40 CFR 60, Appendix "F". iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
4. Nitrogen Oxides (NO_x): i. Emission Standard: A. For Unit 22-H-2: NO_x emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference: 7 **DE Admin. Code** 1112, Section 3.3.2 dated 11/24/93]*	ii. Compliance Method: A. Compliance with Emission Standard (A). shall be by conducting an annual tune up of each unit by qualified personnel. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. 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 dated 12/11/00]*	v. Reporting: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j C. NO_X emissions from the FCU WGS shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis.	C. Compliance with the Emission Standard (C) shall be based on CEMS. iii. Monitoring/Testing: A. For Unit 22-H-2: None in addition to the annual tune up required in Compliance Method A. B. The CEMS for NO_X and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". the QA/QC procedures for the NO_X and O_2 CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR, Part 60. *[Reference APC-81/0829 (AB)]*. 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 dated 12/11/00]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. A log of all tune ups performed and documentation of qualifications of personnel responsible for conducting the tune up. B. 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 6.1.3.2 dated 12/11/00]* C. RESERVED D. RESERVED	B. RESERVED vi. 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]*.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification	
5. Carbon Monoxide (CO): i. Emission Standards: *[Reference APC-81/0829 (A8)]* A. CO emissions from the FCU WGS shall not exceed 500 ppm dry @ 0% O_2 on an hourly average, 200 ppm dry @ 0% O_2 on a rolling 365 day average, and 694.4 TPY. B. The Owner/Operator shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300º F for at least 0.3 seconds in the FCU COB.	ii. Compliance Method *[Reference APC-81/0829 (A8)]*: A. Compliance with Emission Standard (A) shall be based on CEMS. B. Compliance with Emission Standard (B) is defined as maintaining a firebox temperature of no less than 1300º F as measured on a minute average basis. iii. Monitoring/Testing: A. The Owner/Operator shall monitor the firebox temperature of the FCU COB continuously. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The QA/QC procedures for the CO CEMS and shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. COB firebox temperature. B. The rolling 12 month total emissions for CO shall be calculated and recorded each month in an easily accessible format. C. RESERVED	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*	Deleted: 7 Deleted: 7 Deleted: 608
6. Volatile Organic Compounds (VOCs): i. Emission Standards: *[Reference APC-81/0829 (A8)]* A. VOC emissions from the FCU WGS shall not exceed 0.14 lb/mmDSCF of stack gas and 8.2 TPY. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall	ii. Compliance Method *[Reference APC-81/0829 (A8)]*: A. Compliance with Emission Standard (A) shall be based on stack testing to be conducted in accordance with Condition 3 - Table 1.da.6.iii.A. B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. Compliance with the	v. Reporting Requirement: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*	Deleted: 7 Deleted: 7 Deleted: 7.3

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification	
be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. ii. RESERVED	standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. C. RESERVED D. RESERVED iii. Monitoring/Testing: A. The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons. *[Reference APC-81/0829 (A8)]*	B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-81/0829 (A8)]* 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].*	Deleted: 7 Deleted: 7
	iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv. A. RESERVED B. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-81/0829 (A8)]*		Deleted: 7
7. Sulfuric Acid (H2SO4): i. Emission Standard: *[Reference Permit: APC-81/0829 (A8)]* A. H_2SO_4 emissions from the FCU shall	ii. Compliance Method: *[Reference Permit: APC-81/0829 (A8)]* Compliance with the Emission Standard (A) shall be based on stack testing conducted in accordance with Condition 3 - Table 1.da.7.iii.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply	Deleted: 7 Deleted: 7

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
meet one of the following standards: 1. H_2SO_4 emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd B. H_2SO_4 emissions from the FCU WGS shall not exceed 67.5 lb/hr and 295.7 TPY.	iii. Monitoring/Testing: *[Reference Permit: APC-81/0829 (A8)]* The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference: **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
8. Ammonia (NH3): i. Emission Standard: Ammonia emissions from the FCU shall not exceed 2.3 lb/hour and 10.2 TPY. *[Reference Permit: APC-81/0829 (A8)]*	ii. Compliance Method: *[Reference APC-81/0829 (A8)]* Compliance with the Emission Standard shall be based on an initial performance test. iii. Monitoring/Testing: *[Reference APC-81/0829 (A8)]* The initial performance test shall be conducted in accordance with EPA Conditional Test Method 27. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
9. Lead (Pb): i. Emission Standard: Pb emissions from the FCU shall not	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
exceed 4.37 E-04 pounds per thousand pounds of coke burned and 0.12 TPY. *[Reference Permit: APC-81/0829 (A8)]*	coke burn rate. *[Reference Permit: APC-81/0829 (A8)]* iii. Monitoring/Testing: The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. *[Reference Permit: APC-81/0829 (A8)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
10. Hazardous Air Pollutants (HAPs): i. Emission Standard: Nickel (Ni) emissions shall not exceed 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY. *[Reference APC-81/0829 (A8)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. *[Reference Permit: APC-81/0829 (A8)]* iii. Monitoring/Testing: The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. *[Reference Permit: APC-81/0829 (A8)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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*
11. Visible Emissions: i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or	ii. Compliance Method: A. For units 22-H-2 and 22-H-4: Comply with "Visible Emissions Standard" in Condition 3 - Table 1.ob.1. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. For units 22-H-1 and 22-H-3 compliance shall be	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
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. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84 and APC-81/0829 (A&)]*	demonstrated by the AMP. iii. Monitoring/Testing: A. RESERVED B. For Units 22-H-2 and, when operating, 22-H-4, 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 C below. 2. If no visible emissions are observed, no further action is required. C. For periods when the CO Boiler (22-H-3) is firing refinery fuel gas only, 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 E. 2. If no visible emissions are observed, no further action is required. D. AMP: The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than	*7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	20 % for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period shall be based upon the following parametric monitoring: 1. The minimum delta-P across the Agglo- Filtering modules and Cycolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average basis; and 2. A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of: a. 115 psig, or b. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 3 – Table 1.da.2.iv.3, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 3 - Table 1.da.11.i using EPA Method 9. 3. Notwithstanding Condition 3 - Table 1.da.11.iii.D.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 3 - Table 1.da.11.iii.D.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	exceed the opacity standard specified in Condition 3 - Table 1.da.11.i at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 3 - Table 1.da.11.iii.D.1 to evaluate compliance with Condition 3 - Table 1.da.11.i. E. If required under paragraph C 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 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(c) dated 12/7/88].* iv. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternate plan.	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00].* iv. Record keeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The Owner/Operator shall maintain the following records in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
e. Emission Unit No. 23: Fluid Catalytic Cracking Unit (FCCU); FCCU Reactor, Catalyst Regenerator, Start up Heaters 23-H-1 A and B, Carbon Monoxide Boiler, 23-H-3, and Wet Gas Scrubber System (WGS) (emission point 23-1);		
1. General Conditions: i. Operational Limitations: *[Reference APC-82/0981 (A9)]* A. Except as allowed by operational limitation G, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm). B. Except as provided in Operating Limitation J, the COB, Belco pre-scrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with operational limitations A and B shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with operational limitations C, D and E shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. C. Compliance with the operational limitations F and G shall be demonstrated by monitoring/testing and record keeping requirements.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00 and APC-82/0981 (A9)]* A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
all times when the FCCU is operating. C. During planned start ups of the FCCU, the FCCU COB and WGS shall be operating prior to introducing feed into the riser reactor of the FCCU. In the event of a planned shut down of the FCCU, the FCCU COB or the WGS, the Owner/Operator shall continue to operate the FCCU COB and WGS until there is no feed entering the riser reactor of the FCCU prior to commencing shut down of the FCCU COB and the WGS. D. RESERVED E. RESERVED F. With the exception of operational Limitation (G), 23-H-1A/B and the FCCU COB (23-H-3) shall only combust desulfurized RFG. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]* G. 23-H-3 may combust Alky Merox spent air from 24-C-10, Poly Merox spent air from 26-C-5 and process off gas from the regenerator. *[Reference:40 C.F.R. Part 63, Subpart CC]* H. The Emission Standards in	iii. Monitoring/Testing: A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 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 evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A."*[Reference :7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]* B. RESERVED iv. Recordkeeping: *[Reference APC-82/0981 (A9)]* The following records shall be maintained in accordance with Condition 3(b) A. CEMS data, calibration and audit results. B. The type of fuel combusted in the FCCU COB and 23-H-1 A and B and the daily FCCU COB fuel usage. C. RESERVED D. RESERVED E. RESERVED F. RESERVED G. FCCU COB firebox temperature	become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information: 1. RESERVED 2. RESERVED 3. A summary of all periods when the FCCU WGS has been bypassed. 4. Actual hourly SO_2 emissions during periods when the FCCU WGS was bypassed. 5. RESERVED B. Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include the following: 1. Excess emissions and the nature and cause of the excess emissions, if known. The summary shall consist of emission averages, in the units

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Condition 3 - Table 1.e.2 through e.9 below shall not apply during periods of planned shut down and planned start up of the FCCU for a period of time not to exceed 72 hours for each planned shut down and each planned start up event. The planned shut down period shall begin when there is no feed entering the FCCU reaction section. The planned start up period shall begin when dry-out of the FCCU is commenced. The Emission Standards in Condition 3 - Table 1.e.2 through e.9 shall apply to each planned start up event after the expiration of the 72 hour period. In lieu of the Emission Standards, the following emission limitations shall apply during planned start ups and shut downs of the FCCU: 1. VOC – 9.5 lb/hr 2. PM – 500 lbs/hr 3. SO_2 – 165 lbs/hr 4. CO – 860 lbs/hr I. In the event of an unplanned	H. RESERVED I. RESERVED J. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3 - Table 1.e.	of the applicable standard, for each averaging period during with the applicable standard was exceeded. 2. 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. 3. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. C. RESERVED D. Quarterly SO_2 and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7(c) and (d). vi. Certification: That required by Condition 3(c)(3) of this permit. *(Reference: 7* ***DE Admin.***

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
shutdown of the CO Boiler, the Owner/Operator shall as expeditiously as practicable but no later than 24 hours initiate promoted burn in the FCCU regenerator to control CO emissions in accordance with Condition 3, Table 1.e.5.i. J. Except as provided in Operational Limitation D, this permit does not authorize emissions exceeding the limits set forth in Condition 3, Table 1.e.2 through e.9 including emissions during periods of any unplanned shutdown of the FCCU, or any unplanned shutdown or bypass of the FCCU COB, or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCCU or any unplanned shutdown or bypass of the FCCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCCU should not subject the Owner/Operator		***Code*** *1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00*

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated with the		

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
plant; 4) the degree to which the Owner/Operator has reduced throughput to the FCCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.		
2a. Particulate Matter: i. Emission Standard: A. For the FCCU start up heaters (23-H-1A and B) from combustion of fuel gas: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin. Code** 1104, Section 2.1 dated 2/1/81]* B. TSP emissions from the WGS + system shall not exceed 1lb/1000 lb of coke burned and 203 TPY. *[Reference APC-82/0981*	iii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with the Emission Standard (A) is based on the fuel type and quality. B. Compliance with Emission Standard (B) is based on stack testing conducted in accordance with Condition 3 - Table 1.e.2a.iv. iv. Monitoring/Testing: *[Reference: APC-81/0981 (A9) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The Owner/Operator shall conduct performance testing as follows annually, unless the Department approves less frequent testing: A. RESERVED B. TSP: in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv. and "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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*

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(A9)]	methodology approved by the Department. C. PM10: in accordance with Methods 5B/202, or other testing methodology approved by the Department. v. Record Keeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	*12/11/00*
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
i. Emission Standard A. For 23-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 1105 *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]* B. For the FCCU WGS: 1. TSP emissions shall not exceed 1 lb/1000 lb of coke burned and 203 TPY. *[Reference APC-82/0281 (A9)]* ii. Operational Limitations: A. Indicators: *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. Scrubber pressure drop shall be used as the primary indicator 2. Scrubber pump discharge shall be used as the secondary indicator B. Indicator Ranges *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. For the primary indicator: Minimum delta-P of 6 inches of	iii. Compliance Method Compliance shall be demonstrated by records of the required monitoring. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 dated 12/11/00 and 6.2.1 dated 12/11/00]* iv. Monitoring *[Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]* A. Data Representativeness *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* 1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab Droplet Separators. 2. For the secondary indicator: pressure drop indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps. B. Verification of Operational Status for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1.da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* C. QA/QC Practices for both indicators shall be Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(ii)*	v. Reporting A. Quality Improvement Plan (QIP) 1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. *[Reference: 40 CFR Part 64.7(e) dated 10/22/97]* 2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit's operating time for a reporting period. *[Reference: 40 CFR Part 64.8(a) dated 10/22/97]* B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values. *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* C. The report required by Condition 3(c)(2) of this permit shall also contain the following information:

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period . 2. For the secondary indicator: Minimum discharge pressure satisfying the less stringent of: 115 psig or 95 % of the average discharge pressure recorded during performance testing as specified in **Permit: APC-81/0829 (A9)** for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour period. C. Excursions *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an inspection, corrective action, and a reporting requirement. *[Reference: 40 CFR Part 64.7(d) dated 10/22/97]* D. Monitoring/Measurement Approach *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]* 1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream	*dated 10/22/97]* D. Frequency for both indicators shall be continuous. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* E. Data Collection Procedures for both indicators shall be collected and stored via the Refinery Process Historian. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* F. Averaging Period for both indicators shall be on a 1-minute basis. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]*	*[Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]* 1. Summary information on the number, duration, and cause of excursions or exceedances; 2. The corrective actions taken after an excursion or exceedance; 3. Summary information on the number, duration, and cause of monitor downtime incidents; and 4. If triggered, a description of the actions taken to implement the QIP. vi. Certification None in addition to that required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the quench/pre-scrubber recirculation pumps discharge. E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. *[Reference: 40 CFR Part 64.7(b) dated 10/22/97]* F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing		

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in part by poor maintenance or careless *operation are not malfunctions.* *[Reference: 40 CFR Part 64.7(c) dated 10/22/97]*		
3. Sulfur dioxide (SO_2): i. Emission Standards: A. SO_2 emissions from the FCCU WGS+ shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 361 TPY. *[Reference APC-82/0981 (A9)0981 (A9)]*	ii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on monitoring/testing and recordkeeping requirements iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)0981 (A9)]* A. The SO_2 emissions shall be continuously monitored by CEMS. B. RESERVED C. The CEMS for SO_2 and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the SO_2 and O_2 CEMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". For the purpose of determining the Relative Accuracy of the CEMS, the applicable standard shall be 25 ppmvd. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants"	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	in Condition 3 - Table 1.e.1.iv.	
4. Nitrogen Oxides (NO_x): i. Emission Standard: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j	ii. Compliance Method: A. Compliance with the Emission Standards shall be based on CEMS. 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 dated 12/11/00]* iii. Monitoring/Testing: A. NO_x emissions shall be monitored by CEMS. B. The CEMS for NO_x and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_x and O_2 CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix "F". *[Reference APC-82/0981 (A9)0981 (A9)]* C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j iv. Recordkeeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	v. Reporting: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv. and "General Conditions" in Condition 3 - Table 1.e.1.v. B. RESERVED vi. 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]*
5. Carbon Monoxide (CO): i. Emission Standard: *[Reference APC-82/0981 (A9)0981 (A9)]* A. CO emissions from the FCCU WGS+ shall not exceed 500 ppmv dry as a 1-hour average, and 3,768 TPY. B. The Owner/Operator shall not cause or allow the emission of	ii. Compliance Method: *[Reference Permit APC-82/0981 (A9)0981 (A9)]* A. Compliance with Emission Standard (A) shall be based on CEMS. B. Compliance with Emission Standard (B) is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v.

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification	
carbon monoxide from the FCCU unless it is burned at no less than 1300º F for at least 0.3 seconds in the FCCU COB, or combusted in the FCCU regenerator when operating in full burn mode.	iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)0981 (A9)]* A. The Owner/Operator shall monitor the firebox temperature of the FCCU COB continuously. B. CO emissions shall be monitored by CEMS. C. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple pollutants" in Condition 3 - Table 1.e.1.iv.	*[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*	**Deleted:** *0981 (A7)*
6. Volatile Organic Compounds (VOCs): i. Emission Standard: *[Reference APC-82/0981 (A9)]* A. VOC emissions from the FCCU WGS+ shall not exceed 0.40 lb/mmdcsf and 41.4 tons per year. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCCU shall be in	ii. Compliance Method: *[Reference APC-82/0981 (A9)]* A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. C. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. D. RESERVED E. RESERVED iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)]* A. The Owner/Operator shall conduct performance testing every three years, unless the Department approves	v. Reporting Requirement: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-82/0981 (A9)]*	**Deleted:** *0981 (A7)* **Deleted:** *0981 (A7)* **Deleted:** *0981 (A7)* **Deleted:** *0981 (A7)*

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. ii. RESERVED	less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	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]*
7. Sulfuric Acid (H2SO4): i. Emission Standard: A. H_2SO_4/SO_3 emissions from the FCCU WGS+ shall meet one of the following standards: *[Reference APC-82/0981 (A9)]* 1. H_2SO_4 emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd.	ii. Compliance Method: Compliance with the Emission Standard A shall be based on stack testing conducted in accordance with Condition 3 - Table 1.e.7.iii. monitoring/testing and recordkeeping requirements. *[Reference Permit APC-82/0981 (A9)]* iii. Monitoring/Testing: The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. *[Reference Permit APC-82/0981 (A9)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*
8. Lead (Pb): i. Emission Standard: Pb emissions from the FCCU WGS+ shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned. *[Reference APC-82/0981 (A9)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. *[Reference APC-82/0981 (A9)]* iii. Monitoring/Testing:	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 -

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	The Owner/Operator shall conduct performance testing every three years based on Reference Method 12 in Appendix "A" of 40 CFR Part 60, unless the Department approves less frequent testing. *[Reference APC-82/0981 (A9)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	Table 1.e.1.iv. and "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*
9. Hazardous Air Pollutants (HAPs): *[Reference Permit APC-82/0981 (A9)]* i. Emission Standard: The Owner/Operator shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU.	ii. Compliance Method: *[Reference Permit APC-82/0981 (A9)]* Compliance with the Emission Standard shall be based on monitoring/testing and recordkeeping requirements iii. Monitoring/Testing: *[Reference Permit APC-82/0981 (A9)]* A. CO emissions shall be monitored by CEMS. B. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative,

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. *[Reference: 40 CFR 63, Subpart UUU, §63.1575(c)]* 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]*
10. Visible Emissions: i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Sections 2.1 and 2.3, dated 7/17/84, 40 CFR Part 60, Subpart J, §60.102(a)(2) and Regulation No 1120 Section 11 dated 11/27/85 and Permit: APC-82/0981(A7)]* B. RESERVED	ii. Compliance Method: A. Compliance with Emission Standard A shall be based on Monitoring/Testing requirements. *[Reference Permit APC-82/0981 (A9)]* B. RESERVED iii. Monitoring/Testing: The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCCU WGS stack, when it is operating, satisfies the requirements of Emission Standard (A) shall be based upon the following parametric monitoring: A. The minimum delta-P across the Agglo-Filtering modules and Cycolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average basis; and B. A minimum discharge pressure, evaluated on a one	v. Reporting Requirement: 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]* 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]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of: 1. 115 psig, or 2. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition – Table 1.e.2.iv, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Emission Standard (A) using EPA Method 9. C. Notwithstanding Condition 3 - Table 1.e.10.iii.B, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 3 - Table 1.e.10.iii.B for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Emission Standard (A) at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 3 - Table 1.e.10.iii.A to evaluate compliance with Emission Standard (A). *[Reference APC-82/0981 (A9)]* D. For periods when the CO Boiler (23-H-3) is firing refinery fuel gas only, the Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 E below. 2. If no visible emissions are observed, no further action is required. E. During periods when the COB is bypassed, the Company shall perform a daily visual emission test in accordance with EPA Reference Method 9 to establish that the visible emissions do not exceed the opacity standard specified in Emission Standard (A) F. If required under paragraphs D 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 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 12/7880]* iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference APC-82/0981 (A9)]*	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 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].* iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3. dated 12/11/00]* 3. Observation records shall be maintained and made available to the Department upon request.	
I. [RESERVED]		
m. Emission Unit No. 42: Continuous Catalyst Regenerator (CCR) Reformer, Reformer Charge Heater and Reboiler Heater (Emission points 42-1 and 42-2)		
1. Conditions applicable to Multiple Pollutants:	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]*	v. Reporting: That required by Conditions 2(a),

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
i. Operational Limitations: *[Reference: Permits: APC-82/0073 and APC-82/0632 both dated February 8, 1985]* A. The heat input to 42-H-1,2,3 shall not exceed 458 mmBtu/hr on a 365 day rolling average basis. B. The heat input to 42-H-7 shall not exceed 80 mmBtu/hr on a 365-day rolling average basis. C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in 42-H-1,2,3 and 42-H-7. D. The hydrogen sulfide (H_2S) content in the desulfurized RFG shall not exceed 162 ppmvd (0.10 gr/dscf) on a 3 hour rolling average basis E. Unit 42-H-1,2,3 may combust process vent gases from the reactor lift engager (42-D-11) and from the CCR lift engager (42-D-17).	Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping requirements. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall monitor the fuel usage by 42-H-1,2,3 and 42-H-7 on an hourly basis. B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 42-H-1,2,3 and 42-H-7 and analyze it to determine the daily heat input rate to this unit. C. The Owner/Operator shall monitor H_2S concentrations in RFG continuously. The monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the quality assurance requirements of 40 CFR 60, Appendix "F." The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." D. RESERVED iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. the type of fuel combusted in 42-H-1,2,3 and 42-H-7 and the fuel usage. B. All 3-hour rolling averages of H2S content in RFG. C. CEMS data calibration and audit results.	2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 H_2S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H_2S report shall include a report listing all rolling 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMs exceeds 162 ppmv(d) (0.10 gr/dsef), quarterly results, data capture for the period and details out of control periods. The data submitted with the Owner/Operator's quarterly H_2S CMS NSPS report for the facility shall satisfy this reporting requirement. vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Particulate Matter: i. Emission Standards for 42-H-1,2,3 and 42-H-7: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. *[Reference: 7 **DE Admin. Code.** 110 4 Section 2.1 dated 2/1/83].*	ii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* A. Compliance with the Emission Standard shall be based on the fuel type and quality. iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.m.1.iii iv. Recordkeeping: Comply with "Conditions Applicable to multiple Pollutants" in Condition 3 - Table 1.m.iv.	v. 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]* 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].*
3. Nitrogen Oxides (NO_x): i. Emission Standard: For Unit 42-H-1,2,3: A. NO_x emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. *[Reference: 7 **DE Admin. Code** 1112, Section 3.2.1 dated 11/24/93].* B. For 42-H-1,2,3 and 42-H-7: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j *[Reference: 7 **DE Admin. Code** 1112, Section 5 dated 11/24/93]* C. For 42-H-7: NO_x emissions shall not exceed those achieved by the installation of either low excess air and low NO_x burner technology or flue gas recirculation technology. *[Reference: 7 **DE Admin. Code** 1112, Section 3.3.1 dated 11/24/93]*	ii. Compliance Method: A. Compliance with the Emission Standards (A) and on the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" from 42-H-1,2,3 in Part 1, Condition 3, Table 1.j (B) shall be determined by CEMS. *[Reference: 7 **DE Admin. Code** 1112 Section 3.2.4.1 dated 11/24/93].* B. Compliance with Emission Standard (C) shall be based on the operation and maintenance of the Low NO_x burners in accordance with the manufacturer's specifications. C. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j for 42-H-7 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 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	v. 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]* vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Owner/Operator and approved by the Department. *[Reference: 7 **DE Admin Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The CEMS for NO_x and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_x and diluent CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix "F". B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* iv. Recordkeeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	
4. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* iii. Monitoring/Testing: 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	v. 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]* vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 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 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].* iv. Record keeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Observation records shall be maintained and made available to the Department upon request.	
5. Hazardous air pollutants: *[Reference: Permit APC-82/0073]* i. Emission standards: A. The wet gas scrubber shall reduce uncontrolled emissions of HCl by 97% by weight at all	iii. Compliance method: *[Reference: Permit APC-82/0073]* Compliance with the Emission Standards and Operational Limitations shall be based on Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: *[Reference: Permit APC-82/0073]*	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 and the following. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated*

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
times. B. Total HCl emissions from the CCR Reformer unit shall not exceed 1.6 tons on a 12-month rolling basis. C. The wet gas scrubber shall reduce uncontrolled emissions of chlorine by 95% by weight at all times. D. Total chlorine emissions shall not exceed 0.80 tons on a 12-month rolling basis. ii. Operational limitations: A. The Owner/Operator shall operate the wet gas scrubber at all times according to the procedures of the operation, maintenance and monitoring (OMM) plan, which shall include the information specified in 40 CFR Part 63.1574(f). B. The minimum daily average pH of the scrubbing liquid exiting the scrubber shall be 6.56. C. The minimum daily average liquid-to-gas ratio shall be 0.12. D. During periods of startup, shutdown, and malfunction, the Owner/Operator shall operate the CCR Reformer unit and wet	A. To demonstrate compliance with the Operational Limitations, the Owner/Operator shall operate a continuous monitoring system to measure the following parameters, in accordance with the requirements of 40 CFR Part 63, Subpart UUU, Table 41. 1. The pH of the scrubbing liquid exiting the scrubber; 2. The gas flow rate to the scrubber; 3. The total scrubbing liquid flow rate; 4. The differential pressure across the scrubber. B. To demonstrate compliance with Operational Limitations (B) and (C) during coke burn-off and catalyst rejuvenation, the Owner/Operator shall: 1. Collect the hourly and daily average pH monitoring data according to §63.1572; 2. Maintain the daily average pH above the operating limit established during the performance test; 3. Collect the hourly average gas flow rate and scrubbing liquid flow rate monitoring data; 4. Determine and record the hourly and daily average liquid-to-gas ratio; 5. Maintain the daily average liquid-to-gas ratio above the limit established during the performance test; and 6. Comply with the OMM plan. v. Recordkeeping: *[Reference: Permit APC-82/0073]* The following records shall be maintained in accordance with Condition 3(b):	*12/11/00 and Permit APC-82/0073]* A. The Owner/Operator shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. 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]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gas scrubber in accordance with a written startup, shutdown, malfunction plan (SSMP) pursuant to 40 CFR Part 63.6(e)(3).	A. A copy of each notification and report submitted pursuant to or supporting any initial Notification of Compliance Status pursuant to §63.10(b)(2)(xiv); B. Records in §63.6(e)(1)(iii) through (v) related to startup, shutdown and malfunction; and C. Records of performance tests required in §63.10(b)(2)(vii).	
n. <u>Emission Unit No. 45</u>: Refinery Utilities, North & South Flares and Gas Recovery System; Spent Caustic Stripper (Emission points 45-1 and 45-2):		
1. Flares i. Emission Standard: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j ii. Operational Limitations: A. RESERVED B. The flare shall be operated at all times when emissions may be vented to it. *[Reference: 40 CFR 60, Subpart A, §60.18(e), dated 7/1/06]* C. At least one flare recovery compressor shall be operational at all times, except during periods of malfunction as defined in Condition 2(e)(5). D. The flares shall be designed for and operated with no visible	ii. Compliance Method A. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j for NOx emissions associated with the combustion of pilot gas shall be based on published NOx emission factors for such source or category of sources or any other method proposed by the Owner/Operator and approved by the Department. B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j for NOx emissions associated with the combustion of process gas shall be estimated in accordance with best engineering judgment or any other method proposed by the Owner/Operator and approved by the Department. C. Compliance with the Operational Limitations shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this condition. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	v. 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]*

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SEP 12 2011

BY: laf/HLS

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT

AIR QUALITY MANAGEMENT SECTION

Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, Delaware 19901

TELEPHONE: (302) 739 - 9402
FAX NO.: (302) 739 - 3106

September 7, 2011

Permit: APC-81/0828-OPERATION (Amendment 2) (PSD-NSR)
Crude Unit

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102, Section 2 and 1125, approval of the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the operation of the Crude Unit with a throughput of 191,100 barrels per day (BPD) located at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware, in accordance with the following documents:

- Application submitted on Form No. AQM–4 dated February 15, 2004 signed by Franklin R. Wheeler;
- Letter dated March 17, 2004 addressed to Secretary John Hughes and signed jointly by Franklin R. Wheeler for Motiva Enterprises (Motiva) and Bruce Jones for The Premcor Refining Group, Inc. (Premcor) requesting transfer of all Motiva's permits to Premcor;
- Letter dated April 23, 2004 addressed to Franklin Wheeler of Motiva Enterprises, LLC and Bruce Jones of The Premcor Refining Group, Inc. and signed by Secretary John Hughes;
- Consent Decrees, including all addenda thereto, lodged with the United States Court for the Southern District of Texas in Civil Action No. H-01-0978, to the extent applicable to the Delaware City Refinery (Consent Decree)
- Secretary's Order No. 2004-A-0058 issued November 30, 2004; and
- Secretary's Order No. 2005-A-0008 issued March 7, 2006.

- Agreement Governing the Acquisition and Operation of Delaware City Refinery dated May 31, 2010 between the Department of Natural Resources and Environmental Control and Delaware City Refining Company.
- Letter dated December 9, 2010 addressed to Heather Chelpaty and signed by secretary Collin O'Mara authorizing the transfer of DNREC Authorizations and Environmental Permits from Premcor to Delaware City Refining Company.
- Electronic mail addressed to Ravi Rangan from Robert Muche dated 08.22.2011.

This permit is issued subject to the following conditions:

1. General Provisions

1.1. Representatives of the Department may, at any reasonable time, inspect this facility.

1.2. This permit may not be transferred to another location or to another piece of equipment or process.

1.3. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least thirty (30) days before the date of the requested permit transfer. This request shall include:

1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the *Regulations.*

1.5. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) by September 07, 2012. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1. Air contaminant emission levels shall not exceed those specified in the *Regulations* and the following:

2.1.1 Volatile Organic Compound (VOC) Emissions

The leak detection and repair requirements to control fugitive VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63, subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the Crude Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

2.2. Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations

3.1. The Company shall comply with the following operational limits:

3.1.1. The crude unit throughput shall not exceed 191,100 barrels per day on a 12 month rolling average basis.

3.1.2. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.1.3. The Company shall provide for the following during process unit turnarounds:

3.1.3.1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.2.

3.2.1. At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner

6.4 One original of all required reports in hard copy format shall be sent to the address below:

Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

7. Administrative Conditions

7.1. This permit shall be made available on the premises.

7.2 This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-81/0828-CONSTRUCTION (Amendment 2)(PSD-NSR)** dated September 8, 2008 and supersedes **Permit: APC-81/0828-OPERATION (Amendment 1)** dated June 29, 2007.

7.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File

6. Reporting Requirements

6.1. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department at its sole discretion.

6.2 In addition to complying with Condition 6.1 of this permit, the Company shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.

consistent with good air pollution control practices for minimizing emissions.

3.2.2. All structural and mechanical components shall be maintained in proper operating condition.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1. Compliance with Condition 3.1.1 shall be based on monitoring the daily throughput to the crude unit.

4.2. Compliance with Conditions 3.1.2 and 3.1.3 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. Compliance with Condition 3.1.3, i.e, during process unit turnarounds, shall be based upon the Company conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less.

4.3. Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.

4.4. Compliance with Condition 3.2 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. Record Keeping Requirements

5.1. The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request.

5.2. The following information shall be recorded and maintained:

5.2.1. The 12 month rolling average throughput in MBPD to the crude unit;

5.2.2. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service; and

5.2.3. Date of process unit or vessel turnarounds and the internal pressure of the process unit or vessel immediately prior to venting to the atmosphere.

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SEP 12 2011

BY: lof/HLS

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT

AIR QUALITY MANAGEMENT SECTION

Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, Delaware 19901

TELEPHONE: (302) 739 - 9402
FAX NO.: (302) 739 - 3106

September 7, 2011

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)
Fluid Coker Unit, FCU Carbon Monoxide Boiler,
Wet Gas Scrubber, and Selective Non-Catalytic Reduction System

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102, Section 2 and 1125, approval of the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the operation of a Belco Pre-scrubber, an amine-based Cansolv Regenerative Wet Gas Scrubber (WGS) with caustic polisher installed downstream of the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB) and a GE Selective Non Catalytic Reduction (SNCR) System in the FCU COB at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware, in accordance with the following documents:

- Application submitted on Form No. AQM–4 dated February 15, 2004 signed by Franklin R. Wheeler;
- Letter dated March 17, 2004 addressed to Secretary John Hughes and signed jointly by Franklin R. Wheeler for Motiva Enterprises (Motiva) and Bruce Jones for The Premcor Refining Group, Inc. (Premcor) requesting transfer of all Motiva's permits to Premcor;
- Letter dated April 23, 2004 addressed to Franklin Wheeler of Motiva Enterprises, LLC and Bruce Jones of The Premcor Refining Group, Inc. and signed by Secretary John Hughes; and
- Consent Decrees, including all addenda thereto, lodged with the United States Court for the Southern District of Texas in Civil Action No. H-01-0978, to the extent applicable to the Delaware City Refinery (Consent Decree);

- Secretary's Order No. 2004-A-0058 issued November 30, 2004.
- Secretary's Order No. 2005-A-0030 issued June 2, 2005.
- Secretary's Order No. 2008-A-0025 issued June 4, 2008.
- Agreement Governing the Acquisition and Operation of Delaware City Refinery dated May 31, 2010 between the Department of Natural Resources and Environmental Control and Delaware City Refining Company.
- Letter dated December 9, 2010 addressed to Heather Chelpaty and signed by secretary Collin O'Mara authorizing the transfer of DNREC Authorizations and Environmental Permits from Premcor to Delaware City Refining Company.
- Electronic mail addressed to Ravi Rangan from Robert Muche dated 08.22.2011.

This permit is issued subject to the following conditions:

1. General Provisions

1.1 This permit expires five years from the date of issuance.

1.2 Representatives of the Department may, at any reasonable time, inspect this facility.

1.3 This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the *Regulations.*

1.5 The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) by September 07,

2012. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1 Air contaminant emission levels from the FCU WGS shall not exceed those specified in the *Regulations* and the following[1]:

2.1.1 Volatile Organic Compound (VOC) Emissions

2.1.1.1 Non-methane Hydrocarbon Emissions: 0.14 lb/mmDSCF of stack gas and 8.2 TPY.

2.1.1.2 The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

2.1.2 Nitrogen Oxide (NO_X) Emissions

2.1.2.1 NO_X emissions shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis.

2.1.2.2 Reserved.

2.1.3 Particulate Matter

2.1.3.1 H_2SO_4: 67.5 lb/hour and 295.7 TPY;

2.1.3.2 TSP: 60.9 lb/hour and 266.8 TPY;

2.1.3.3 PM_{10} emissions (including TSP and H_2SO_4): 128.4 lb/hour and 562.4 TPY.

2.1.4 Sulfur Dioxide (SO_2) Emissions

SO_2 emissions shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 182.3 TPY;

[1] Tons per year (TPY) is defined as "tons per rolling twelve months".

2.1.5 Carbon Monoxide (CO) Emissions

2.1.5.1 CO: 500 ppmvd @ 0% O_2 on an hourly average, 200 ppmvd @ 0% O_2 on a rolling 365-day average, and 694.4 TPY.

2.1.5.2 Reserved.

2.1.5.3 The Company shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.

2.1.6 Sulfuric Acid (H_2SO_4) Emissions

H_2SO_4 emissions shall meet one of the following standards:

2.1.6.1 H_2SO_4 emissions shall be reduced by at least 40% across the wet gas scrubber system; or

2.1.6.2 The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd.

2.1.7 Ammonia (NH_3) Emissions

NH_3: 2.3 lb/hour and 10.2 TPY;

2.1.8 Lead (Pb) Emissions

Pb: 4.37 E-04 pounds per thousand pounds of coke burned and 0.12 TPY;

2.1.9 Hazardous Air Pollutant (Ni HAP) Emissions

Ni: 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY.

2.2 The opacity from the FCU WGS stack or the back up incinerator stack, when it is operating, shall not be greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period.

2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

2.4 The emission limitations in Conditions 2.1 shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The emission limitations shall

apply to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hours from feed out of the FCU. In lieu of the emission limitations in Condition 2.1, the following emission limitations shall apply during planned start ups and shut downs of the FCU:

2.4.1	VOC	1.6 lbs/hr
2.4.2	NOx	Reserved
2.4.3	H_2SO_4	58 lbs/hr
2.4.4	TSP	47.1 lbs/hr
2.4.5	PM_{10}	133.3 lbs/hr
2.4.6	SO_2	95 lbs/hr
2.4.7	CO	415 lbs/hr
2.4.8	Ammonia	2 lbs/hr

Compliance with these emission limitations in Condition 2.4 shall be determined based on engineering calculations.

2.5. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Company, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the following operational limits and emissions rates by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS:

Implementation of Turndown Matrix

FCU Feed Rate (KBD)	FCU Feed Wt.% S	SO_2 Emissions (lb/hr)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

3. Operational Limitations

3.1 The owner or operator shall comply with the following operational limits:

3.1.1 The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Company determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in State of Delaware

Regulations, 7 **DE Admin. Code** 1101, then the Company shall submit a notification to the Department in advance of achieving a throughput in excess of the level identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Company may operate the FCU at the throughput value addressed in the notification made under this Condition.

3.2 With the exception of the FCU burner Offgas, the Company shall not burn any fuel that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm).

3.3 The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating.

3.4 During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Company shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS.

3.5 This Permit does not authorize emissions exceeding the limits set forth in Condition 2 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Company shall bear the burden of demonstrating to the Department's satisfaction that the Company's continued operation of the FCU should not subject the Company to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware *Regulations.* Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Company's response to, the unplanned shutdown; 2) whether the Company has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Company has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Company has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns

and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.

3.5.1 Should the Company operate the backup incinerator, the Company shall abide by the following:

3.5.1.1 Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 second; and

3.5.1.2 Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot *("dscf")* shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O_2 and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.

3.6 There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.7 During process unit turnarounds the Company shall provide for the following:

3.7.1 Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

3.7.2 No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.8

3.8.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.8.2 All structural and mechanical components shall be maintained in proper operating condition.

3.9 HAP emissions from the FCU shall be controlled to meet the MACT I compliance requirements for miscellaneous process vents in accordance with 40 CFR 63.643 (b).

4. Compliance Methodology

4.1 Compliance with Conditions 2.1.3 and 2.1.6 through 2.1.9 shall be based on stack testing to be conducted in accordance with Section 6 of this permit. The Company

shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.

4.2 Compliance with Condition 2.1.1.1 shall be based on stack testing to be conducted in accordance with Condition 5.2. The Company shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.

4.3 Compliance with Condition 2.1.1.2 for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177.

4.4 Compliance with Conditions 2.1.2, 2.1.4, 2.1.5 and 3.2 shall be based on continuous monitoring systems.

4.5 Compliance with Conditions 2.2, 3.1, 3.3, 3.4 and 3.5.1 shall be based on the monitoring/testing and recordkeeping requirements.

4.6 Compliance with Condition 3.6 and 3.7 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. These actions shall be documented and maintained in accordance with Condition 6.1.

4.7 Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.

4.8 Compliance with Condition 3.8 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. Testing and Monitoring Requirements

5.1 Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after construction authorized by this permit is completed, the Company shall conduct performance tests for the pollutants listed in Conditions 2.1.3 (PM_{10}), 2.1.6 (H_2SO_4), 2.1.8 (Pb), and 2.1.9 (HAPS).

5.2 The Company shall conduct performance testing for VOCs according to the following provisions:

5.2.1 The Company shall conduct additional performance tests for VOCs every three years. The Company may petition the Department to decrease the

frequency of VOC performance tests based on the results of any performance testing.

5.2.2. Each performance test conducted pursuant to Condition 6.2 shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons.

5.3 Within 90 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

5.3.1 One original and 2 copies of the test protocol including a "Source Sampling Guidelines and Preliminary Survey Form" shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 5.3.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

5.3.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

5.3.3 The final results of the testing shall be submitted to the Department within 90 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:	One Copy to:
Engineering & Compliance Branch	Air Surveillance Branch
Attn: Assigned Engineer	Attn: Program Manager
156 South State Street	715 Grantham Lane
Dover, DE 19901	New Castle, DE 19720

5.3.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment Department.

5.3.5 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s).

Failure to demonstrate compliance through the test may result in enforcement action.

5.4 The QA/QC procedures for the SO_2 CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR Part 60.

5.5 The QA/QC procedures for the NO_x CEMS shall be established in accordance with the procedures in Appendix B of 40 CFR Part 75 to meet the requirements of the NOx Budget Trading Program contained in DNREC Regulation 39 (Nitrogen Oxides Trading Program). If at a future date the FCU COB is no longer an affected source under DNREC Regulation 39, the appropriate procedures governing the QA/QC of the CEMS shall be those set forth in Appendix F of 40 CFR 60.

5.6 PM: Compliance with PM emission limits shall be based on performance testing conducted in accordance with Condition 5.1 and annually thereafter, as follows:

5.6.1 H_2SO_4: Compliance with Conditions 2.1.3.1 and 2.1.6 shall be based on testing in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.

5.6.2 TSP: Compliance with Condition 2.1.3.2 shall be based on testing in accordance with Reference Method 5B in Appendix "A" of 40 C.F.R. Part 60, or other testing methodology approved by the Department.

5.6.3 PM_{10} (including TSP and H_2SO_4): Compliance with Condition 2.1.3.3 shall be based on testing in accordance with Methods 5B/202, or other testing methodology approved by the Department.

5.6.4 $PM_{2.5}$: Compliance with Condition 2.1.3.4 shall be based on testing in accordance with a Department approved protocol.

The Company may petition the Department for less frequent testing if future data shows that testing an annual basis is unwarranted.

5.7 The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60.

5.8 Ni/Pb: Compliance shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. The Company shall conduct additional performance testing in accordance with this condition every three years, unless the Department approves less frequent testing.

5.9 The Company shall continuously monitor the temperature of the FCU COB firebox.

5.10 The Company shall monitor the FCU throughput and coke burn rates.

5.11 The Company shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than 20% for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24

hour period (required in Section 2.2) shall be based upon the following parametric monitoring:

5.11.1 The minimum delta-P across the Agglo-Filtering modules and Cycolab Droplet Separators shall be 6 inches of water column, evaluated on a one minute average basis; and

5.11.2 A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of:

5.11.2.1 115 psig, or

5.11.2.2. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 5.6.3, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 2.2 using EPA Method 9.

5.11.3 Notwithstanding Condition 5.11.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 5.11.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Company may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Condition 2.2 at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 5.11.1 to evaluate compliance with Condition 2.2.

6. Record Keeping Requirements

6.1 The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request. These records shall include:

6.1.1 CEMS data;
6.1.2 Calibration and audit results;
6.1.3 Stack test results;
6.1.4 The daily COB fuel usage;
6.1.5 The coke burn rate and FCU throughput, both on a rolling twelve month average basis;
6.1.6 COB firebox temperature;

6.1.7 Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternative plan;

6.1.8 Date of every process unit or vessel turnaround;

6.1.9 Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere;

6.1.10 VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service;

6.1.11 Bypass stack SO_2 emissions as calculated according to Condition 3.5; and

6.1.12 Backup incinerator operating hours, furnace temperature, percent O_2, and opacity.

6.2 The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 2.1.

7. Reporting Requirements

7.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

7.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or the environment.

7.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department at its sole discretion.

7.2 In addition to complying with Condition 6.1 of this permit, the Company shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

7.2.1 The name and location of the facility;

7.2.2 The subject sources that caused the emissions;

7.2.3 The time and date of the first observation of the excess emissions;

7.2.4 The cause and expected duration of the excess emissions;

7.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission or

operational limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

7.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Owner/Operator shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

7.3 Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. The required reports shall contain the following information:

7.3.1 A summary of all excess emissions for the reporting period;
7.3.2 Periods when the firebox temperature fell below 1300°F;
7.3.3 Exceedances of the FCU throughput rate identified in Condition 3.1;
7.3.4 A summary of all periods when the FCU WGS has been bypassed;
7.3.5 Hourly SO_2 emissions during periods when the was FCU WGS bypassed;
7.3.6 The duration and magnitude of all periods of excess opacity;
7.3.7 Back up incinerator operating data required pursuant to condition 6.1.12

7.4 Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.

7.5 Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include a report of excess emissions, quarterly audit results, data capture for the period and details of out of control periods.

7.6 One original of all required reports in hard copy format shall be sent to the address below:

Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery.

8. Administrative Conditions

8.1 This permit shall be made available on the premises.

8.2 This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-81/0829-CONSTRUCTION (Amendment 8)(PSD-NSR)** dated September 8, 2008 and supersedes **Permit: APC-81/0829-OPERATION (Amendment 7)** dated June 4, 2008.

8.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File

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MAY 03 2012

BY: HLS/laf

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No (302) 739 - 3106

April 30, 2012

Permit: APC-82/0981-OPERATION (Amendment 9)(NSPS)
Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide Boiler, and Wet Gas Scrubber System

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Road
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102 Section 2, approval of the Department of Natural Resources and Environmental Control (Department) is hereby granted for the operation of the Fluid Catalytic Cracking Unit (FCCU), its Carbon Monoxide Boiler (COB) and the Wet Gas Scrubber (WGS) train consisting of a Belco Pre-Scrubber, an amine based Cansolv Regenerative Wet Gas Scrubber with caustic polisher, hereafter all components are collectively referred to as "the FCCU WGS System" at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware in accordance with the following documents:

- Application submitted on Form No. AQM-4 dated February 15, 2004 signed by Franklin R. Wheeler;
- Letter dated March 17, 2004, addressed to Secretary John Hughes and signed jointly by Franklin R. Wheeler for Motiva Enterprises (Motiva) and Bruce Jones for The Premcor Refining Group, Inc. (Premcor) requesting transfer of all Motiva's permits to Premcor;
- Letter dated April 23, 2004 addressed to Franklin Wheeler of Motiva Enterprises, LLC and Bruce Jones of The Premcor Refining Group Inc. and signed by Secretary John Hughes;
- Consent Decrees, including all addenda thereto, lodged with the United States Court for the Southern District of Texas in Civil Action No. H-01-0978, to the extent applicable to the Delaware City Refinery (Consent Decree);
- Secretary's Order No. 2005-A-0029 issued on May 31, 2005;
- Application submitted on Form No. AQM-4 dated July 6, 2006 signed by Andrew Kenner;
- Agreement for NO_X Emission Reductions from FCCU effective July 6, 2006;
- Letter dated July 17, 2007 addressed to Paul Foster and signed by Thomas Godlewski Regarding Emission Limitation Proposal – VOC, PM_{10}, H_2SO_4;
- Letter dated July 30, 2007 addressed to Paul Foster and signed by Thomas Godlewski Regarding Emission Limitation Proposal - NO_X;
- Agreement for NO_X Emission Reductions from FCCU effective July 10, 2006;

- Letter dated June 20, 2008 addressed to Paul Foster and signed by Thomas Godlewski regarding installation of a bypass around the FCCU COB;
- Application submitted on Form Nos. AQM-1, AQM-3.1, AQM-4.4 and AQM-5 dated March 4, 2009 signed by John Pickering; and
- E-mail dated March 11, 2009, from Thomas Godlewski to Ravi Rangan regarding the FCCU Seamless Bypass System Proposal.
- Application submitted on Form Nos. AQM-1, AQM-3.1, AQM-4.5 and AQM-5 dated November 1, 2010 signed by James Fedena.
- Letters dated December 29, 2010 and December 31, 2010 addressed to Ravi Rangan and signed by Robert Muche.

This permit is issued subject to the following conditions:

1. **General Provisions**

1.1. This permit expires five years from the date of issuance.

1.2. Representatives of the Department may, at any reasonable time, inspect this facility.

1.3. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 DE Admin. Code 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.5. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 DE Admin. Code 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. **Emission Limitations**

2.1. Air contaminant emission levels from the FCCU WGS System through the WGS stack[1] shall not exceed those specified in the Regulations at 7 **DE Admin. Code** 1100, *et. seq.* and the following[2]:

2.1.1. Volatile Organic Compound (VOC) Emissions

2.1.1.1. VOC emissions shall not exceed 0.40 lb/mmdscf and 41.4 TPY.

2.1.1.2. The leak detection and repair requirements to control fugitive VOC emissions from the FCCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63 subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

2.1.2. Nitrogen Oxide (NOx) Emissions

NO_x emissions shall not exceed those prescribed in Condition 3, Table 1e.4.i of **Permit: AQM-003/00016 – Part 2 (Revision 5)** dated April 5, 2011.

2.1.3. Particulate Matter

Particulate matter emissions shall not exceed 1 lb/1000 lb of coke burned and 203 TPY.

2.1.4 Sulfuric Acid (H_2SO_4) Emissions

H_2SO_4 emissions shall meet one of the following standards:

2.1.4.1 H_2SO_4/SO_3 emissions shall be reduced by at least 40% across the wet gas scrubber system; or

2.1.4.2 The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd.

2.1.5 Sulfur Dioxide (SO_2) Emissions

SO_2 emissions shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 352 TPY.

2.1.6 Carbon Monoxide (CO) Emissions

2.1.6.1 CO emissions shall not exceed 500 ppmvd as a 1 hour average and 3,085 TPY.

2.1.6.2 The Company shall not cause or allow the emission of carbon monoxide from the FCCU unless it is burned at no less than 1300°F for at least 0.3

[1] This permit specifically does not authorize any emissions through the Goggle valve and its bypass stack.
[2] Tons per year (TPY) is defined as "tons per rolling twelve months" unless otherwise specified.

seconds in the FCCU COB, or combusted in the FCCU regenerator when operating in full-burn mode.

2.1.7 Lead (Pb) Emissions

Pb emissions shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned.

2.1.8 Hazardous Air Pollutant (HAP) Emissions

The Company shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU.

2.1.9 The Company shall evaluate the performance of the FCCU over a contiguous 30-month period to verify the improvements anticipated by this project. The Company shall, based on this evaluation, submit a proposal to incorporate revised and lower emission limits for PM and SO_2 emissions, to the Department for its approval and incorporation into the operation permit. The proposal shall be submitted to the Department within 90 days of the end of the evaluation period.

2.2. The opacity from the FCCU WGS stack shall not be greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period.

2.3. Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

2.4. In the event that the FCCU COB is bypassed and/or shut down, operation of the FCCU shall be in accordance with Attachment A of this permit.

2.5. The emission limitations in Condition 2.1 with the exception of Conditions 2.1.3, 2.1.4 and 2.1.5, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start ups of the FCCU for a period of time not to exceed 80 hours for each planned shut down and each planned start up event. The planned shut down period shall begin 8 hours prior to the time when there is no feed entering the FCCU reaction section. The planned start up period shall begin when dry-out of the FCCU is commenced. The emission limitations in Condition 2.1 shall apply to each planned start up event after the expiration of the 80 hour period following commencement of FCCU dry-out. In lieu of the emission limitations in Condition 2.1, the following emission limitations shall apply during periods when the FCCU COB is combusting refinery fuel gas only and during planned start ups and shut downs of the FCCU:

2.5.1.	VOC	9.5 lbs/hr
2.5.2.	PM	500 lbs/hr
2.5.3.	SO_2	165 lbs/hr
2.5.4.	CO	860 lbs/hr

Compliance with these emission limitations shall be determined based on engineering calculations.

3. **Operational Limitations**

3.1. The Company shall comply with the following operational limits:

3.1.1. With the exception of regenerator process offgas, the Company shall not burn any fuel in the FCCU COB that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm);

3.1.2. Except as provided in Condition 3.2, the COB, Belco pre-scrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at all times when the FCCU is operating.

3.1.3. During planned start ups of the FCCU, the FCCU COB and WGS shall be operating prior to introducing feed into the riser reactor of the FCCU. In the event of a planned shut down of the FCCU, the FCCU COB or the WGS, the Company shall continue to operate the FCCU COB and WGS until there is no feed entering the riser reactor of the FCCU prior to commencing shut down of the FCCU COB and the WGS.

3.2 Except as provided in Condition 2.4, this Permit does not authorize emissions exceeding the limits set forth in Condition 2 including emissions during periods of any unplanned shutdown of the FCCU, or any unplanned shutdown or bypass of the FCCU COB, or the Belco prescrubber or WGS system. Instead, in the event of any unplanned shutdown of the FCCU or any unplanned shutdown or bypass of the FCCU COB or Belco prescrubber or the WGS system, the Company shall bear the burden of demonstrating to the Department's satisfaction that the Company's continued operation of the FCCU should not subject the Company to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under 7 **DE Admin. Code** 1100. Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Company's response to, the unplanned shutdown; 2) whether the Company has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Company has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Company has reduced throughput to the FCCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCCU; 6) whether the Company had reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.

3.3 There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.4 During process unit turnarounds the Company shall provide for the following:

3.4.1 Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

3.4.2 No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.5

3.5.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.5.2 All structural and mechanical components shall be maintained in proper operating condition.

4. **Compliance Methodology**

4.1. Compliance with Conditions 2.1.1.1 (VOCs), 2.1.3 (PM), 2.1.4 (H_2SO_4), 2.1.7 (Pb) and 2.1.8 (HAPs) shall be based on stack testing to be conducted in accordance with Condition 5 of this permit. The Company shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17 section 2.3 in the exhaust stack, and upstream of the Belco pre-scrubber in accordance with EPA RM 1 of 40 CFR Part 60, Appendix "A" to ensure representative isokinetic sampling.

4.2. Compliance with Condition 2.1.1.2 for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177.

4.3. Compliance with Conditions 2.1.2, 2.1.5, 2.1.6.1, and 3.1.1 shall be based on continuous monitoring systems.

4.4. Compliance with Condition 2.1.6.2 is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis.

4.5. Compliance with Conditions 3.1.2 and 3.1.3 shall be based on the monitoring/testing and recordkeeping requirements.

4.6. Compliance with Conditions 3.4 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136kPa or less. These actions shall be documented.

4.7. Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.

4.8. Compliance with Condition 3.5 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. **Testing and Monitoring Requirements**

5.1 Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

5.1.1 One original and 2 copies of the test protocol including a "Source Sampling Guidelines and Preliminary Survey Form" shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 6.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

5.1.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

5.1.3 The final results of the testing shall be submitted to the Department within 90 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:	One Copy to:
Engineering & Compliance Branch	Engineering & Compliance Branch
Attn: Permitting Engineer	Attn: Surveillance Engineer
655 S. Bay Rd, Suite 5 N,	715 Grantham Lane
Dover, DE 19901	New Castle, DE 19720

5.1.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment department.

5.1.5 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

5.2 The QA/QC procedures for the SO_2 CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR Part 60. For the purpose of determining the Relative Accuracy of the CEMS, the applicable standard shall be 25 ppmvd.

5.3 The NO_x CEMS shall be installed and certified by satisfying the requirements of the applicable Performance Specifications in Appendix "A" of 40 CFR Part 60. The QA/QC procedures for the CEMS shall be established in accordance with the procedures in Appendix "B" of 40 CFR Part 60.

5.4 Compliance with PM emission limits shall be based on performance testing conducted in accordance with Condition 5.1 and annually thereafter, as follows:

5.4.1 H_2SO_4: Compliance with emission limits set in accordance with Condition 2.1.4 shall be based on testing in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.

5.4.2 TSP: Compliance with Condition 2.1.3 shall be based on testing in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.

5.4.3 PM_{10}: Compliance with emission limits set in accordance with Condition 2.1.3 shall be based on testing in accordance with Methods 5B/202, or other testing methodology approved by the Department.

The Company may petition the Department to decrease the frequency of PM_{10} performance tests based on the results of any performance testing.

5.5 CO: Compliance testing shall be based on CEMS. The CEMS shall be installed and certified by satisfying the requirements of Performance Specifications No. 4 in Appendix "B" of 40 CFR Part 60. The QA/QC procedures for the CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR Part 60.

5.6 VOC as CH_4: Compliance testing shall be based on Reference Method 25 A in Appendix "A" of 40 CFR Part 60 every three years thereafter. The Company may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing

5.7 Pb: Compliance shall be based on the stack test based emission factor in terms of lb/1,000 lb coke burn rate. The Company shall conduct additional performance testing in accordance with this condition every three years, unless the Department approves less frequent testing.

5.8 The Company shall continuously monitor the temperature of the FCCU COB firebox.

5.9 The Company shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCCU WGS stack, when it is operating, satisfies the requirements of Condition 2.2 shall be based upon the following parametric monitoring:

5.9.1 The minimum delta-P across the Agglo-Filtering modules and Cycolab Droplet Separators shall be 6 inches of water column, evaluated on a one minute average basis; and

5.9.2 A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of:

5.9.2.1 115 psig, or

5.9.2.2 The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 5.4, provided that such

performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 2.2 using EPA Method 9.

5.9.3 Notwithstanding Condition 5.9.1 and Condition 5.9.2, when the COB is on line and operating, if either the differential pressure across the Agglo-Filtering Modules/Cyclolab Droplet Separators or the discharge pressure from the quench/prescrubber falls below the minimum levels established under Conditions 5.9.1 and 5.9.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Company may perform a visual emission test in accordance with EPA Reference Method 9 to establish that the visible emissions do not exceed the opacity standard specified in Condition 2.2 at the reduced parameter level. In such a case, the new minimum value for the parameter in question shall be the average value recorded during the Method 9 test, and shall be used in conjunction with Condition 5.9.1 to evaluate compliance with Condition 2.2.

5.9.4 During periods when the COB is bypassed, the Company shall perform a daily visual emission test in accordance with EPA Reference Method 9 to establish that the visible emissions do not exceed the opacity standard specified in Condition 2.2.

5.10 All monitor certifications shall be conducted within 60 days of the unit attaining maximum production but not later than 180 days after unit start up. A "Source Sampling Guidelines and Preliminary Survey Form" must be submitted and found acceptable to the Department at least 30 days prior to the performance testing. Results of the Performance Specification testing shall be submitted to the Department, in triplicate, within 90 days after completion of the testing.

6. Record Keeping Requirements

6.1. The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request. These records shall include:

6.1.1. CEMS data;
6.1.2. Calibration and audit results;
6.1.3. Stack test results;
6.1.4. The daily FCCU COB fuel usage;
6.1.5. FCCU COB firebox temperature;
6.1.6. Detailed daily records of observations of visible emissions or the absence of visible emissions, or daily visible emissions observations, or other records identified in an approved alternative plan;
6.1.7. Date of each FCCU process unit or vessel turnaround;
6.1.8. Date and duration of seamless bypass operation;
6.1.9. Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere; and
6.1.10. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.

6.2. The rolling 12 month total emissions for each pollutant shall be calculated and recorded for each month in an easily accessible format for each pollutant listed in Condition 2.1.

7. **Reporting Requirements**

7.1. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery by calling the Environmental Emergency Notification and Complaint number, (800) 662-8802.

7.2. In addition to complying with Condition 7.1 of this permit, the Company shall satisfy any reporting required by the "**Reporting of a Discharge of a Pollutant or an Air Contaminant**" Regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to Condition 7.1. Further the Department may in its discretion require the Company to submit reports not otherwise required by the Regulation. All reports submitted to the Department pursuant to this Condition shall be submitted in writing and shall include the following information:

7.2.1. The name and location of the facility;
7.2.2. The subject source(s) that caused the excess emissions;
7.2.3. The time and date of the first observation of the excess emissions;
7.2.4. The cause and expected duration of the excess emissions;
7.2.5. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
7.2.6. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
7.2.7. Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report.
7.2.8. The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

7.3. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information:

7.3.1. A summary of all excess emissions for the six month period;
7.3.2. Periods when the FCCU COB firebox temperature fell below 1300° F; and
7.3.3. The duration and magnitude of all periods of excess opacity;

7.4. NO_x CEMS reports as required in Condition 3, Table 1, jb.v of Permit: AQM-003/00016 – Part 1 (Renewal 1)(Revision 5) dated April 5, 2011.

7.5. Quarterly SO_2 and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7(c) and (d).

7.6. Annual compliance test reports shall be submitted to the Department within 60 days of completion of the test.

7.7. VOC leak repair records shall be submitted to the Department as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 60.654 for new components in light liquid and gaseous service.

7.8. One original of all required reports in hard copy format shall be sent to the address below:

Air Quality Management Section
Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

One copy of all required reports in hard copy format shall be sent to the address below:

Compliance Engineer
Engineering & Compliance Branch
715 Grantham Lane
New Castle, DE 19720

8. **Administrative Conditions**

8.1. This permit shall be made available on the premises.

8.2. This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-82/0981-CONSTRUCTION (Amendment 9)(NSPS)** dated February 3, 2011 and supersedes **Permit: APC-82/0981-CONSTRUCTION/OPERATION (Amendment 8)(NSPS)** dated May 1, 2009.

8.3. Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

for Paul Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:CRR:slb
F:/EngandCompliance/CRR/crr12016.doc

pc: Dover Tile V File
Mark J. Lutrzykowski, P.E.

ATTACHMENT "A"

CO Boiler Bypass Events – Conversion to Full Burn

The procedures described herein shall apply during periods of transition when the CO Boiler experiences an unplanned start-up or shut-down event.

Rationale:

DCRC is installing a bypass line around the CO boiler to allow for regenerator flue gas to be treated in the wet gas scrubber (WGS) during periods when the CO boiler is not available or otherwise out of service. When the regenerator flue gas is bypassing the CO boiler, the FCCU will be converted to operate in full burn to minimize CO emissions. However, if the CO boiler were to shutdown unexpectedly, it is not possible to instantaneously convert the regenerator from partial burn operation to full burn operation and, thus, the following provisions address the operation of the FCCU during such transition periods.

Interim Control Measures

The Owner/Operator shall comply with the following interim control measures:

1. Unplanned Start-up and Shutdown of Fluid Catalytic Cracker Unit CO Boiler. In the event that the FCCU COB is to be shut down for a period longer than 24 hours, DCRC shall promptly begin necessary process changes to provide for the complete combustion of carbon monoxide. Full CO combustion operation shall be achieved within 24 hours.

2. If there is an emergency shutdown of the FCCU CO Boiler due to upsets or malfunctions, the refinery will take the following steps:

   - Open the bypass line to allow for treatment of regenerator flue gases in the wet gas scrubber;
   - Immediately begin the necessary process changes to allow for the complete combustion of carbon monoxide in the regenerator; and
   - FCCU throughput and operating conditions will be safely adjusted as necessary (see FCCU Turndown Factor below) to allow full CO combustion operation to be achieved within 24 hours of attainment of appropriate operating conditions.

   If there is an unplanned or emergency shutdown of the FCCU CO Boiler, the refinery will conduct an evaluation of the cause of the shutdown. If the CO Boiler can be repaired and brought back on line in less than 24 hours, then the regenerator flue gas may continue to bypass the COB to allow it to be repaired or restarted, and combustion promoter need not be added. Until the FCCU CO boiler is returned to normal operation or until full promoted burn conditions are established in the regenerator, in order to minimize FCCU CO emissions, the FCCU feed rate will be reduced to the minimum operating rate as described in the FCCU Turndown Factor below. During this period (24 hours maximum), the requirements in Condition 2.1.6 and 7 **DE Admin. Code** 1111 shall not apply.

FCCU Turn Down Factor

These procedures have been incorporated to minimize FCCU CO emissions during time periods that the FCCU COB is bypassed.

1. If the Company's initial assessment indicates that the FCCU COB can be returned to service within 24 hours after the unplanned shutdown or emergency shutdown, or full combustion of CO has been achieved to meet applicable emission limits, then no rate cuts will be initiated and combustion promoter need not be added. The FCCU may continue to operate until the COB is restarted.

2. If the Company's initial assessment indicates that the FCCU COB cannot be returned to service within 24 hours after the unplanned or emergency shutdown, the Company shall take the following actions:

   a. The Company will promptly begin to reduce the FCCU feed rate at a rate of 5,000 bph until the unit is operating at 55,000 bpd; and

   b. Combustion promoter will be added to the FCCU regenerator when appropriate operating conditions have been achieved. Fully promoted (complete) combustion will be achieved within 24 hours of the start of the unplanned or emergency shutdown.

Regulation No. 30
Title V State Operating Permit Program
ADMINISTRATIVE INFORMATION
Air Quality Management Section

AQM-1001

ADMINISTRATIVE INFORMATION FOR:	FOR DEPARTMENT USE, ONLY
☐ INITIAL APPLICATION	I.D. NO.:
☒ RENEWAL APPLICATION *(check one)*	PERMIT NO.:
☐ MODIFICATION	DATE: / /

SOURCE INFORMATION

1. SOURCE NAME: Delaware City Refining Company LLC Delaware City Refinery		2. DATE FORM COMPLETED: 5/21/2012
3. SOURCE STREET ADDRESS: 4550 Wrangle Hill Road		
4. CITY: Delaware City	5. ZIP: 19706	6. COUNTY: NEW CASTLE
7. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (*SIC*) CATEGORY: Petroleum Refining		8. PRIMARY *SIC* NO.: 2911
9. SOURCE ENVIRONMENTAL CONTACT PERSON: Thomas S. Godlewski, Jr.		10. CONTACT PERSON'S TELEPHONE NO.: (302) 834-6053

OWNER INFORMATION

11. NAME: Delaware City Refining Company LLC		
12. ADDRESS: 4550 Wrangle Hill Road		
13. CITY: Delaware City	14. STATE: DE	15. ZIP: 19706
16. OWNERS AGENT (*if applicable*):		

OPERATOR INFORMATION

17. NAME: Delaware City Refining Company, LLC		
18. ADDRESS: 4550 Wrangle Hill Road		
19. CITY: Delaware City	20. STATE: DE	21. ZIP: 19706

APPLICANT INFORMATION

22. WHO IS THE PERMIT APPLICANT: *(Check One)* ☐ OWNER ☒ OPERATOR	23. ALL CORRESPONDENCE TO: *(Check One)* ☐ OWNER ☒ OPERATOR ☐ SOURCE
24. CONTACT PERSON NAME AND/OR TITLE FOR WRITTEN CORRESPONDENCE: Thomas S. Godlewski, Jr. Senior Environmental Engineer	
25. TECHNICAL CONTACT FOR SUBMITTAL OF APPLICATION: Thomas S. Godlewski	26. CONTACT PERSON'S TELEPHONE NO.: (302) 834-6053

27. TOTAL COST OF PLANT: $ Not Applicable
(*Including property, buildings and air pollution control equipment, original cost basis*)

COST OF PROPOSED MODIFICAITONS: $ Not Applicable
(Modification Applications, Only)

28. PRESENT STATUS OF EQUIPMENT (Check appropriate box(es) and complete applicable items)

OPERATING PERMIT:

☒ For existing plant, date construction completed (*original facility*) / /1956

☐ Name change pending, effective date / /

CONSTRUCTION PERMIT (*for modifying sources*):

	Equipment to be modified or constructed	Estimated Starting Date	Estimated Completion Date
☐			
	☐ Basic Equipment	/ /	/ /
	☐ Air Pollution Control Equipment	/ /	/ /
☐	Change of Location Pending	/ /	/ /

29. ARE HAZARDOUS MATERIALS* OR COMPOUNDS OF SUCH MATERIALS ARE EMITTED INTO THE ATMOSPHERE FROM ANY OPERATION AT THIS LOCATION:

YES

*As defined in Section 112(b) of the November 15, 1990 Clean Air Act Amendments.

30. 1990 CLEAN AIR ACT AMENDMENTS, §112(r)

a. The facility is subject to the requirements of §112(r) of the 1990 Clean Air Act Amendments.

b. The facility has registered in compliance with the State of Delaware "Regulations for the Management of Extremely Hazardous Substances."

(if a registration has not been filed, a Compliance Schedule is required to be submitted with this Application).

31. 1990 CLEAN AIR ACT AMENDMENTS, Title VI Requirements

a. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances?

YES

b. Does any air conditioner(s) or any piece(s) of refrigeration equipment contain a refrigerant charge greater than fifty (50) pounds?

YES

(*If the answer is "YES," describe what type of equipment and how may units are at the facility*).

c. Do your facility personnel maintain, service, repair or dispose of any motor vehicle air conditioners (MVACs) or appliances? (*"Appliance" and "MVAC", as defined at 40 CFR, Part 82.152*)

NO

d. Cite and describe which Title VI requirements, if any, are applicable to your facility. (i.e., 40 CFR, Part 82, Subparts A through G)

40 CFR 82, Subpart F

32. Complete the following table, indicating each Emission Unit and each Emission Point ID.
Provide the Pint Description, and indicate which forms and other information are included as part of this application.

Emission Unit	Emission Point ID	Point Description	AQM-1001A	AQM-1001B	AQM-1001C	AQM-1001D	AQM-1001E	AQM-1001F	AQM-1001G	AQM-1001H	AQM-1001J	AQM-1001K	AQM-1001L	AQM-1001M	AQM-1001N	AQM01991V	AQM-1001W	AQM-1001X	AQM-1001Y	AQM-1001Z	AQM-1001AA	AQM-1001BB	AQM-1001CC	Process Flow Diagram	Site Plan: Stack Data and Locations	Emission Calculation Sheets	Stack Test Results	Supplemental/Other (Specify)
		See Attached	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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33. I, the undersigned, hereby certify under penalty of law that I am a Responsible Official and that I have personally examined and am familiar with the information submitted in this document and all of its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is, on knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

By signing this form, I certify that I have not changed, altered, or deleted any portions of this application.

BY: Herman Seedorf DATE: 5 / 21 / 12

Herman Seedorf
Typed or Printed Name of Signatory

Refinery Manager
Title of Signatory

AQM-1001 Checklist [1]

DCP Unit Number	Emission Unit	Emission Point	Source Description(s)	AQM-1001A Combustion	AQM-1001B Process	AQM-1001C Incinerators	AQM-1001D Volatile Liquid Storage Tanks	AQM-1001K Stack Parameters	AQM-1001L Monitoring Equipment	AQM-1001M Compliance Schedule	AQM-1001N GEP Stack Height Determinations	AQM-1001V Applicable Requirements	AQM-1001W Emissions Comparison	AQM-1001X Compliance Monitoring Devices and Activities	AQM-1001Y Compliance Status	AQM-1001Z Compliance Schedule	AQM-1001BB Compliance Certification	AQM-1001CC Insignificant Activities	Process Flow Diagram	Site Plan	Emission Calculations	Stack Test Results	Text, Supplemental, Other [2]
10	Refinery WWTP	10-1	Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU)														X						X
10	Gasoline Dispensing Facility	N/A	Gasoline Dispensing Facility														X						X
15	Marine Vapor Recovery (MVR) System	15-1 15-2	Piers 2 and 3														X						X
21	Crude Unit	21-1	Crude Unit														X						X
21	21-H-2	21-1	Crude unit vacuum distillation column heater														X						X
21	21-H-701	21-1	Crude unit atmospheric distillation column heater														X						X
22	22-H-2	22-4	Fluid coker Selas steam superheater														X						X
22	FCU	22-2 or 22-3	FCU, CO Boiler, Wet Gas Scrubber, and SNCR														X						X
23	23-H-1A	23-1	FCCU start-up air heater A														X						X
23	23-H-1B	23-1	FCCU start-up air heater B														X						X
23	FCCU	23-1	FCCU unit (reactor, catalyst regenerator, CO boiler, and Wet Gas Scrubber)														X						X
25	25-H-401	25-4	Cracked Naptha Hydrotreater Reactor Charge Heater														X						X
25	25-H-402	25-5	Cracked Naptha Unit Reboiler Heater														X						X
28	Sulfur Recovery Area	28-1 or 28-2	Sulfur Recovery Area (SRU I, SRU II, SCOT I, SCOT II, Ancillary Equipment)														X						X
29	29-H-101	29-1	Catalytic Hydrodesulfurizer train 1 feed heater														X						X
29	29-H-8	29-1	Catalytic Hydrodesulfurizer train 1 fractionator heater														X						X
29	29-H-2	29-2	Catalytic Hydrodesulfurizer train 2 feed/fractionator heater														X						X
29	29-H-3	29-2	Catalytic Hydrodesulfurizer train 3 feed heater														X						X
29	29-H-9	29-2	Catalytic Hydrodesulfurizer train 3 fractionator heater														X						X
29	29-H-4	29-3	Catalytic Hydrodesulfurizer train 4 feed heater														X						X
29	29-H-7	29-3	Catalytic Hydrodesulfurizer train 4 fractionator heater														X						X
29	29-H-5	29-4	Catalytic Hydrodesulfurizer train 5 feed heater														X						X

AQM-1001 Checklist [1]

DCP Unit Number	Emission Unit	Emission Point	Source Description(s)	AQM-1001A Combustion	AQM-1001B Process	AQM-1001C Incinerators	AQM-1001D Volatile Liquid Storage Tanks	AQM-1001K Stack Parameters	AQM-1001L Monitoring Equipment	AQM-1001M Compliance Schedule	AQM-1001N GEP Stack Height Determinations	AQM-1001V Applicable Requirements	AQM-1001W Emissions Comparison	AQM-1001X Compliance Monitoring Devices and Activities	AQM-1001Y Compliance Status	AQM-1001Z Compliance Schedule	AQM-1001BB Compliance Certification	AQM-1001CC Insignificant Activities	Process Flow Diagram	Site Plan	Emission Calculations	Stack Test Results	Text, Supplemental, Other [2]
29	29-H-6	29-4	Catalytic Hydrodesulfurizer train 5 fractionator heater														X						X
32	32-H-101	32-1	Tetra unit feed heater														X						X
33	33-H-1	33-1	Selective Hydrogenation Unit (SHU) Start-Up Heater														X						X
33	33-H-2	33-2	Selective Hydrogenation Unit (SHU) Reboiler Heater														X						X
34	134-H-101	34-1	Olefins unit reboiler heater														X						X
36	36-H-1	36-1	Hydrocracker unit feed heater														X						X
36	36-H-2	36-2	Hydrocracker unit vacuum column reboiler														X						X
36	36-H-3	36-2	Hydrocracker unit fractionator reboiler														X						X
37	Hydrogen Plant	37-1A and 37-1B	Hydrogen plant and reformer heater 37-H-1 A/B														X						X
40	Frozen Earth Propane Storage System	40-1	Frozen Earth Propane Storage Flare System														X						X
42	42-H-1, 2, 3	42-1	Continuous catalyst regeneration (CCR) reformer platform heater														X						X
42	42-H-7	42-2	CCR reformer unit reboiler														X						X
45	Refinery Flare System	45-1	North Flare														X						X
45	Refinery Flare System	45-2	South Flare														X						X
45	Spent Caustic Stripper	N/A	Spent Caustic Stripper														X						X
80	DCPP	80-1	DCPP Boiler #1														X						X
80	DCPP	80-1	DCPP Boiler #2														X						X
80	DCPP	80-1	DCPP Boiler #3														X						X
80	DCPP	80-1	DCPP Boiler #4														X						X
82	DCPP	N/A	Gas Plant - Gasifier 1														X						X
82	DCPP	N/A	Gas Plant - Gasifier 2														X						X
82	DCPP	N/A	Gas Plant - Amine Acid Gas Removal														X						X
82	DCPP	82-1	Syngas Flare														X						X
84	DCPP	84-1	CCU I														X						X
84	DCPP	84-2	CCU II														X						X
84	DCPP	84-1	Duct Burner - Train #1														X						X
84	DCPP	84-2	Duct Burner - Train #2														X						X

NOTE 1: Forms E, F, G, H, AND J are not applicable to Delaware City Refining Company, LLC None of these processing operations occur at DCRC's Delaware City Refinery.
NOTE 2: For Text, Supplemental, Other, see Table of Contents
X = Included

7 DE Admin. Code 1130 Title V State Operating Program Air Quality Management Section	AQM-1001BB revised

COMPLIANCE CERTIFICATION ***Form B*** Updated July 1, 2008 For Permits Issued After May 12, 2008 Using New Boilerplate Language	FOR DEPARTMENT USE, ONLY DATE RECEIVED: DATE REVIEWED: REVIEWED BY:

An application for a permit, permit modification, or permit renewal must contain a certification of compliance signed by a *Responsible Official*. This form must be submitted with each application in addition to satisfying the compliance certification requirements of Regulation No. 30 (Title V) State Operating Permits. The Annual Compliance Certification report is due February 1 of each calendar year and covers the reporting period of January 1 through December 31 of the previous calendar year. This form also fulfills the requirement to certify compliance with applicable requirements at the time of the initial application request for a permit and for a significant or minor permit revision request. This form can also be used to certify compliance with the applicable requirements and terms and conditions of the operating permit as part of request for permit renewal.

This form has been designed for permits issued after May 12, 2008 that have new boilerplate language. Note: A limited number of permits issued soon after May 12, 2008 were in-process and contain the older language. If you are uncertain of which Compliance Certification form to use, ask your permitting engineer or scientist.

Part A: FACILITY INFORMATION

1. Facility Name: Delaware City Refining Company, LLC
2. Facility Street Address: 4550 Wrangle Hill Road
3. City: Delaware City | 4. State: DE | 5. Zip Code: 19706
6. Are you submitting: *(check only one box)*
   A. Compliance Certification as part of an Initial Permit Application: ☐
   B. Compliance Certification as part of an Application for Permit Renewal: ☒
   C. Annual Compliance Certification: ☐
   D. Compliance Certification as part of an Application for a Minor or Significant Permit Revision: ☐
7. Permit No.: AQM-003/00016 | 8. Facility ID No.: 1000300016 (10 digits) | 9. Date Permit Issued: 3/4/2010
10. What is the reporting period?
    A. Annual Compliance Certification: N/A
    B. Semi-Annual Report: N/A
    Submitted using form AQM-1001BB:
    If YES, Indicate the reporting period for the Semi-Annual Report:
    / / TO / /
11. Date Form Prepared: 5/21/2012
12. Technical Contact: Thomas S. Godlewski, Jr. Title: Senior Environmental Engineer
    Phone No.: (302) 834-6053 ext. Fax No.: (302) 836-6505 E-Mail Address: thomas.godlewski@pbfenergy.co

Part B: COMPLIANCE STATUS

1. Complete Table 1 – Compliance Status: Indicate the compliance status with respect to the terms and conditions of the Regulation No. 30 (Title V) State Operating Permit.

2. Complete Table 2 – Compliance Status – General Conditions: Indicate the Compliance Status with the General Conditions of the Regulation No. 30 (Title V) State Operating Permit.

3. Has any of the information contained in Items 1 through 5 of Part A and/or Part D, Responsible Official, information changed from that contained in the issued Regulation No. 30 (Title V) State Operating Permit?
   YES
   If YES, submit a request for an administrative permit amendment per the requirements of Regulation No. 30 Section 7(c).

4. Semi-Annual Report: Completion of this section of the form fulfills the obligation of the facility to submit a Semi-Annual Report.

   Complete Table 3, Report of Any Required Monitoring, and complete Table 4, Report of Deviations

   Is the Responsible Official reporting any deviations for the reporting period? NOT APPLICABLE

7 DE Admin. Code 1130 (Title V) State Operating Permit Program Air Quality Management Section COMPLIANCE CERTIFICATION	AQM-1001BB revised

Part C: ADDITIONAL INFORMATION

1. Does the Company possess any additional information that demonstrates noncompliance with any term or condition of the Regulation No. 30 (Title V) State Operating Permit? NO

   If YES, complete Table 5 – Additional Information

2. Is the Company submitting any attachments with the annual certification report? NOT APPLICABLE

   If YES, complete Table 6 – Additional Information

Part D: CERTIFICATION BY RESPONSIBLE OFFICIAL

I, the undersigned, hereby certify under penalty of law that I am a Responsible Official and that I have personally examined and am familiar with the information submitted in the document and all of its attachments as to the truth, accuracy, and completeness of this information. I certify based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

I am submitting the Semi-Annual Report with the Annual Compliance Certification: NOT APPLICABLE
(Note: the Semi-Annual Report is due February 1st for the reporting period July 1st through December 31st and August 1st for the reporting period January 1st through June 30th of each calendar year.)

By signing this form, I certify that I have not changed, altered, or deleted any portions of this form.

Responsible Official Signature: Herman Seedorf 5/21/12

Responsible Official Name: Herman Seedorf
Responsible Official Title: Refinery Manager
Phone Number: (302) 834-6400 ext.

Part E: SUBMITTAL INFORMATION

1. The Annual Compliance Certification report is due February 1 of each calendar year.

2. The Annual Compliance Certification should be submitted to the following locations:

Original and one (1) copy:	One (1) copy:
State of Delaware – DNREC Division of Air and Waste Management 156 South State Street Dover, DE 19901 Attention: Program Administrator	United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103

7 DE Admin. Code 1130 (Title V) State Operating Permit Program Air Quality Management Section COMPLIANCE CERTIFICATION (continued)	AQM-1001BB revised

Facility Name: Delaware City Refining Company, LLC Operating Permit Number: AQM-003/00016 Reporting Period: NOT APPLICABLE

Table 1 – Compliance Status

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 1 – Compliance Status

COLUMN A	COLUMN B	COLUMN C	COLUMN D
Emission Unit Identification	Identification of Each Permit Term or Condition that is the basis of this Certification	Methods Used to Determine Compliance	Compliance Status During Reporting Period Continuous or Intermittent
	See Annual Compliance Certification Submitted January 2012		Continuous
			Continuous
			Continuous
			Continuous
			Continuous
			Continuous
			Continuous
			Continuous
			Continuous

Facility Name: Delaware City Refining Company, LLC Operating Permit Number: AQM-003/00016 Reporting Period: NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(a)(2) Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten (10) calendar days thereafter, together with any corrected or supplemental information required concerning the deviation.	1. Did you submit a report of deviations required under Condition 3(c)(2)(ii) and/or 3(c)(2)(iii)? N/A 1.a. If you marked "YES" indicate the number of reports submitted and the date of each report: NOT APPLICABLE 1.b. Did you submit any report identified above within ten (10) calendar days without a certification by the Responsible Official? NOT APPLICABLE 1.c. If you marked "YES" to 1.b., indicate the reports that were submitted without the certification by the Responsible Official: NOT APPLICABLE 1.d. If you marked "YES" to 1.b. did you submit a report meeting the requirements of Condition 2(a)(1) within ten (10) calendar days following the initial report for each of the reports identified in 1.c.? NOT APPLICABLE If you need additional space, complete Table No. 5.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(a)(3) Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses: State of Delaware – DNREC Division of Air and Waste Management Air Quality Management Section 156 South State Street Dover, DE 19901 Attn: Program Administrator No. of Originals: 1 No. of Copies: 2 United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103 No. of Copies: 1	2.a. Did you submit any documents? NOT APPLICABLE 2.b. If "YES," did you submit to both the Department and EPA using the addresses identified in your Operating Permit? NOT APPLICABLE 2.c. Did you submit the correct number of copies for each and every submittal? NOT APPLICABLE 2.d. If you marked "NO," to 2.b. and/or 2.c., are you now submitting the document(s) with the Annual Compliance Certification? NOT APPLICABLE If you marked "YES" to 2.d., use Table 6 to attach and identify those documents that are being submitted with the Annual Compliance Certification.
Condition No. 2(h) The Owner/Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly.	3. Did you pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(p) Risk Management Plan 1. In the event this stationary source, as defined in the State of Delaware "**Accidental Release Prevention (ARP) Regulation**" Section 4, is subject to or becomes subject to Section 5 of the "**ARP Regulation**" (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. 2. If this stationary source, as defined in the State of Delaware "**ARP Regulation**" Section 4, is not subject to Section 5 but is subject or becomes subject to Section 6 of the "**ARP Regulation**" (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware Accidental Release Prevention Group by the date specified in Section 6.6.10 and required revisions as specified by Section 6.6.1.	4. Are you subject to Section 5 of the "**ARP Regulation**"? YES 4.a. If you marked "YES" did you submit the following: 4.a.1. A risk management plan by the date specified in Section 5.10? YES 4.a.2. Required Revisions as specified in Section 5.190? YES 4.a.3. A certification statement as mandated by Section 5.185? YES 4.b. If you marked "NO" to 4.a. did you submit a compliance schedule to the Department pursuant to Regulation No. 30 Section 5(d)(8)? NOT APPLICABLE 5. Are you subject to Section 6 of the "**ARP Regulation**"? YES 5.a. If you marked "YES" did you submit the following: 5.a.1. A Delaware RMP by the date specified in Section 6.10? YES 5.a.2. Required revisions as specified by Section 6.60(j)? YES 5.b. If you marked "NO" to 5.a. did you submit a compliance schedule to the Department pursuant to Regulation No. 30 Section 5(d)(8)? NOT APPLICABLE
Condition No. 2(q) Stratospheric Ozone, 40 CFR Part 82	6. Are you subject to the provisions of Stratospheric Ozone, 40 CFR Part 82? YES 6.a. If you marked "YES" complete Table 1 and indicate your compliance status with respect to each permit term and condition.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b) Compliance Determination Methodology The Owner/Operator shall maintain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all original strip chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form.	7. Are you maintaining records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application? YES
Condition 3(b)(1)(i) The Owner/Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Conditions 3(b)(1)(ii) and 3(b)(2).	8. Did you comply with each Compliance Determination Methodology (i.e. did you conduct the compliance determination methodology as frequently and in the manner specified by the operating permit) specified in Condition 3 – Table 1 for each associated permit term and condition? NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b)(1)(ii) General Testing Requirements Upon written request of the Department, the Owner/Operator shall, at the Owner/Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records and submit reports to the Department on the results of such sampling.	9. Did the Department request that you conduct any sampling of emissions or fuel used? NO 9.a. If you marked "YES," provide a brief description of the testing requirement: Emission Unit ID / Date of Sampling / Compliance Status NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE If you need additional space, provide information in Table No. 5. 9.b. If you marked "YES," did you conduct the sampling in the timeframe and by the protocol established by the Department for each test required? NOT APPLICABLE 9.c. If you marked "YES," did you submit reports to the Department of the results for each test required? NOT APPLICABLE 9.d. If you marked "YES," are you maintaining records for each test required? NOT APPLICABLE 9.e. If you marked "NO" to 9.b., 9.c., and/or 9.d., submit a deviation report for each and every deviation. Use Table 4 to complete this information.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b)(2)(i) General Record Keeping Requirements If required, for each operating scenario identified in Condition 3 – Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner/Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the scenario under which it is operating.	10. Does your permit contain Alternate Operating Scenarios in Condition 3 – Table 1? NO 10.a. If you marked "YES," identify the emission units and the Alternate Operating Scenario(s) for each emission unit: NOT APPLICABLE 10.b. If you marked "YES," to 10 did you maintain a log for each emission unit and corresponding Alternate Operating Scenario? NOT APPLICABLE 10.c. If you marked "YES," to 10 did you contemporaneously with changing from one operating scenario to another, record in this log the scenario under which the emission unit is operating for each emission unit and corresponding Alternate Operating Scenario? NOT APPLICABLE 10.d. If you marked "NO" to 10.b. and/or 10.c., complete Table No. 4.
Condition 3(b)(2)(ii) General Record Keeping Requirements The following information to the extent specified in Condition 3 – Table 1 of this permit. A. The date, place, and time of the sampling or measurements. B. The date(s) analyses were performed. C. The Owner/Operator or entity that performed the analysis. D. The analytical techniques or methods used. E. The results of such analyses. F. The operating conditions as existing at the time of sampling or measurement.	11. Are you maintaining the information required? YES
Condition 3(b)(2)(iv) A copy of the written notice request by Condition 3(c)(2)(iii) for each change made for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of the permit.	12. Are you maintaining a copy of the written notice for each change made under Condition 4(c) [Operational Flexibility] with a copy of the permit? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(1) Specific Reporting/Certification Requirements The Owner/Operator shall comply with the Reporting/Certification Requirement(s) detailed in Condition 3 – Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3). Each report that contains any deviation(s) from the terms of Condition 3 – Table 1 shall identify the probable cause of the deviation(s) and any corrective action(s) or preventative measure(s) taken.	13.a. Did you comply with the Reporting/Certification Requirement(s) detailed in Condition 3 – Table 1 of your Operating Permit? NOT APPLICABLE 13.b If you marked "NO," did you submit deviation report(s) for each instance where the Reporting/Certification requirements detailed in Condition 3 – Table 1 were not met? NOT APPLICABLE 13.c If you marked "NO," to 13.b, are you submitting the information with this Annual Compliance Certification? NOT APPLICABLE
Condition 3(c)(2)(i) General Reporting Requirements The Owner/Operator shall submit to the Department a report of any required monitoring not later than the first day of August (covering the period from January 1 through June 30) and the first day of February (covering the period from July 1 through December 31) of each calendar year. Each report shall identify any deviation(s) from permit requirements since the previous report, any deviation(s) from the monitoring, record keeping and reporting requirements under this permit, and the probable cause of the deviation(s) and any corrective actions or preventative measures taken. If no deviation(s) has occurred such shall be stated in the report.	14. For the reporting period of this compliance certification, did you submit the Semi-Annual Reports by the deadlines specified in the permit? NOT APPLICABLE 14.a. If you marked "NO," did you submit the Semi-Annual Report to the Department? NOT APPLICABLE 14.b. If you marked "YES" to 14.a., please identify the report(s) that were submitted late: NOT APPLICABLE If you marked "NO" to 14.a., submit a compliance schedule to submit the Semi-Annual Report(s) to the Department. Attach the compliance schedule and label as Attachment No. AQM-1001BB-1.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(ii)(A) In addition to the semi-annual monitoring reports required under Condition 3(c)(2)(i), the Owner/Operator shall submit to the Department supplemental written report(s)/notice(s) identifying all deviations from permit conditions, probable cause of the deviation(s), and any corrective actions or preventative measures as follows: If the Owner/Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two (2) working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken.	15. Did you submit any claims of affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of the operating permit? NOT APPLICABLE 15.a. If you marked "YES," identify the notice(s) submitted to the Department including the date of the emergency or malfunction, date notice submitted to the Department and a brief description of the malfunction: NOT APPLICABLE
Condition 3(c)(2)(ii)(B) In addition to the semi-annual monitoring reports required under Condition 3(c)(2)(i), the Owner/Operator shall submit to the Department supplemental written report(s)/notice(s) identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: Emission in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: 1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint Number (800) 662-8802. 2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications to the Department may be revoked by the Department upon written notice to the Company and at the Department's sole discretion.	16. Did you report any emissions in excess of any permit condition or emissions which create a condition of air pollution in accordance with Condition 3(c)(2)(ii)(B)? NOT APPLICABLE If you marked "YES," identify the report(s) submitted to the Department including the date of the emissions in excess of any permit condition or emissions which create a condition of air pollution, date of report, and a brief description of the incident: NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(ii)(C) All emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department in a written report pursuant to Condition 3(c)(2)(i) and/or the specific reporting requirements listed in Condition 3 – Table 1 of this permit.	17. Did you report any emissions in excess of any permit conditions or emissions which created a condition of air pollution in a written report pursuant to Condition 3(c)(2)(i) and/or the specific reporting requirements listed in Condition 3 – Table 1? NOT APPLICABLE 17.b. If you marked "YES," identify the reports submitted to the Department: NOT APPLICABLE
Condition 3(c)(2)(ii)(D) Discharges to the atmosphere in excess of any quantity specified in the 7 Del. C, Section 6208 ("**Reporting of a Discharge of a Pollutant or an Air Contaminant**" Regulation) shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24 hour complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement.	18. Did you report any discharges to the atmosphere in excess of any quantity specified in the 7 Del. C., Section 6028 "**Reporting of a Discharge of a Pollutant or an Air Contaminant**" Regulation? NOT APPLICABLE 18.a. If you marked "YES," identify the number of discharges reported including the date of discharge, reporting personnel, and date you reported: NOT APPLICABLE 18.b. If you marked "YES," did you report immediately upon discovery and after activating the appropriate site emergency plan? NOT APPLICABLE 17.c. If you marked "YES," did you report in person or to the Department's 24 hour complaint line? NOT APPLICABLE
Condition 3(c)(2)(iv) The Company shall submit to the Department an annual emissions statement in accordance with Regulation No. 17 Section 7 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is granted. Such emissions statement shall cover the preceding calendar year.	19. Did you submit your annual emissions statement by the deadline as required by the Department? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(v) If required, the Owner/Operator shall submit to the Department a progress report for applicable requirement(s) identified in Condition 5 – Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative of corrective measures adopted.	20. Is Condition No. 5 applicable to this facility? NO 20.a. If you marked "YES," did you submit the progress reports by August 1 (covering the period January 1 through June 30 of the current calendar year) and February 1 (covering the period July 1 through December 31 of the previous calendar year)? NOT APPLICABLE 20.b. If you marked "NO" to 20.a., indicate the date the report(s) was submitted: NOT APPLICABLE 20.c. If you marked "YES" to 20.a. did each progress report contain the information specified in Conditions 3(c)(2)(v)(A) and 3(c)(2)(v)(B)? NOT APPLICABLE
Condition 4(a) In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3 – Table 1 of this permit, the Company is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change: 1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and 2. Does not involve a change in any compliance schedule date; and 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions.	21. Did all requests submitted under Condition No. 4(a) meet the requirements specified in Condition 4(a)(1) through (3)? NOT APPLICABLE 21.a. If you marked "NO," identify the request(s) that failed to meet the criteria and why. If you need additional space, use Table No. 5. NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 4(b) Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit.	22. Did you submit any requests to the Department pursuant to this provision? NOT APPLICABLE 22.a. If you marked "YES," provide the date of any and all submittals. Complete all information contained in Part B – Compliance Status – Table 1 for each submittal. NOT APPLICABLE 23. Did you submit a copy of each of the above requests to EPA? NOT APPLICABLE
Condition No. 4(c) The Owner and/or Operator shall keep records of any change made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit.	24. Are you maintaining records for each submittal? (Records are to be maintained for a minimum of five (5) years.) YES
Condition 3(c)(2)(iii) Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner/Operator shall give written notice to the Department and the EPA at least seven (7) calendar days before the change is to be made.	25. Did you make any changes as provided in Condition 4 [Operational Flexibility]? NOT APPLICABLE 25.a. If you marked "YES," indicate the number of changes you requested, a brief description of the change, and the date of the request: NOT APPLICABLE 25.b. If you marked "YES," did you submit written notice for each change to the Department and EPA Region III at least seven (7) calendar days before the change was made? NOT APPLICABLE 25.c. If you marked "NO," proceed to question no. 25.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(iii)(A) The seven (7) day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard.	26. Was the change as provided in Condition 4 [Operational Flexibility] shortened or eliminated in order to address unanticipated conditions posing a significant health, safety, or environmental hazard? NOT APPLICABLE 26.a. If you marked "NO," state why the seven (7) day period was shortened or eliminated: NOT APPLICABLE
Condition 3(c)(2)(iii)(B) If less than seven (7) calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Company shall provide notice to the Department and to EPA as soon as possible after learning of the need to make the change, together with the reason(s) why advance notice could not be given.	27. Did you provide less than seven (7) calendar days notice for any notice submitted pursuant to Condition 4 [Operational Flexibility]? NOT APPLICABLE 27.a. If you marked "YES," identify the notice(s) that were provided with less than seven (7) calendar days notice. Include the date of the notice and a brief description of the change. NOT APPLICABLE 27.b. If you marked "YES," did you provide the Department and EPA with notice for each notice as soon as possible after learning of the need to make the change, together with the reason(s) why advance notice could not be given? NOT APPLICABLE
Condition 3(c)(2)(iii)(C) The written notice shall include all of the following information: 1. The identification of the affected emission unit(s) and a description of the change to be made. 2. The date on which the change will occur. 3. Any changes in emissions. 4. Any permit terms and conditions that are affected, including any new applicable requirements.	27. Did the written notice(s) include the information listed in Condition 3(c)(2)(iii)(C)? NOT APPLICABLE

If you indicated a response of "NO" to any of the questions identified within Table No. 2, review and submit as "deviations" using Table No. 4 if the response indicates that a deviation occurred. If you have already reported the deviation, indicate the date and document under which the deviation was reported. If you need additional space to further explain any of your responses under Table No. 2, use Table No. 5.

7 **DE Admin. Code** 1130 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001EE

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN 40 Code of Federal Regulations (CFR) Part 64	Internal Use Only Facility ID Number: Permit Number: Date Received: Reviewer:

For information about the CAM Rule, please refer to 40 CFR Part 64. Refer to CFR Part 64 in order to complete this form.

Part A: SOURCE INFORMATION

1. Source Name: Delaware City Refining Company
2. Source Street Address: 4550 Wrangle Hill Road City: Delaware City State: DE Zip Code: 19706
3. Source Mailing Address: 4550 Wrangle Hill Road City: Delaware City State: DE Zip Code: 19706
4. Date Form Prepared: 05/20/2012
5. 7 **DE Admin. Code** 1130 (Title V) State Operating Permit No. (If Known): AQM-003/00016
6. Technical Contact: Thomas S. Godlewski, Jr
7. Technical Contact Phone Number: (302) 834-6053 ext.
8. Technical Contact E-Mail: thomas.godlewski@pbfenergy.com

Part B: BASIS OF CAM SUBMITTAL – Complete one form per Pollutant Specific Emission Unit (PSEU)

1. Identify the Pollutant Specific Emission Unit: 15
2. Provide a description of the Pollutant Specific Emission Unit: Marine Vapor Recovery System
3. Mark the appropriate box below as to why this CAM Plan is being submitted:

☐ **Initial Application (Submitted after 4/20/98)**: Only large PSEUs (PSEUs with potential post control device emissions of an applicable regulated air pollutant that are equal to or greater than major source threshold levels) need to be addressed in the CAM Plan submittal. See Initial Application Procedures per 7 **DE Admin. Code** 1130 Sections 5 and 7.

☒ **Renewal Application**: All Emission Units (Pollutant Specific Emission Units considered separately with respect to each regulated air pollutant) for which a CAM Plan has NOT yet been approved needs to be addressed in this CAM Plan submittal. See Renewal Procedures per 7 **DE Admin. Code** 1130 Section 7.3.

☐ **Significant Modification to Large PSEUs**: Only large PSEUs (PSEUs with potential post control device emissions of an applicable regulated air pollutant that are equal to or greater than major source threshold levels) being modified after 4/20/98 need to be addressed in this CAM Plan submittal. For large PSEUs with an approved CAM Plan, only address the appropriate monitoring requirements affected by the significant modification. See Significant Modification Procedures per 7 **DE Admin. Code** 1130 Section 7.5.3.

Part C: CAM APPLICABILITY DETERMINATION

1. Except for the backup utility units that are exempt under 40 CFR Part 64.2(b)(2), the requirements of 40 CFR Part 64 shall apply to a pollutant specific emissions unit at a major source that is required to obtain a 7 **DE Admin. Code** 1130 (Title V) State Operating Permit if the PSEU satisfies ALL the following criteria: (See Note Below)
Check all that apply:

☒ A. The PSEU is located at a major source that is required to obtain a 7 **DE Admin. Code** 1130 (Title V) State Operating Permit.

☒ B. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is not exempt. (See note below)

☒ C. The PSEU uses an add-on control device to achieve compliance with an emission limitation or standards.

☒ D. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than major source threshold levels: and

☒ E. The PSEU is not an exempt backup utility power emissions unit that is municipally owned.

If you did not check B above – identify the Exempt Emission Limitation(s) or Standard(s):

☐ *NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) Proposed after 11/15/1990*

☐ Stratospheric Ozone Protection requirements

☐ Acid Rain Program requirements

☐ Emission limitations or standards for which a 7 **DE Admin. Code** 1130 (Title V) State Operating Permit specifies a continuous compliance determination method, as defined in the CAM Rule, Continuous Compliance Determination, §64.1

☐ An emission cap that meets the requirements specified in 40 CFR 70.4(b)(12)

NOTE: You must meet all of the criteria identified in A through E above. In situations where the PSEU is subject to both exempt and non-exempt emission limitations and standards, the CAM rule still applies for the non-exempt emission limitation and standard. You may propose to monitoring from the exempt emission limitation and standard as compliance assurance monitoring pursuant to the procedures in 40 CFR Part 64. The Department will evaluate and approve or disapprove your proposed monitoring. If you determine that you do not meet the applicability requirements of 40 CFR Part 64, you do not need to submit this application. However, you may retain this information for your records. The Department may ask for further information.

Instructions – The following lists selected requirements for 40 CFR Part 64 pertaining to the submittal of a Compliance Assurance Monitoring (CAM) Plan pursuant to 40 CFR Part 64. See 40 CFR Part 64 for a complete listing of requirements.

§64.4(b)	As part of the information submitted, the owner or operator shall submit a justification for the proposed elements of the monitoring. If the performance specifications proposed to satisfy §64.3(b)(2) or (3) include differences from manufacturer recommendations, the owner or operator shall explain the reasons for the differences between the requirements proposed by the owner or operator and the manufacturer's recommendations or requirements. The owner or operator also shall submit any data supporting the justification, and may refer to generally available sources of information used to support the justification (such as generally available air pollution engineering manuals, or EPA or permitting authority publications on appropriate monitoring for various types of control devices or capture systems). To justify the appropriateness of the monitoring elements proposed, the owner or operator may rely in part on existing applicable requirements that establish the monitoring for the applicable pollutant specific emission unit or a similar unit. If an owner or operator relies on presumptively acceptable monitoring, no further justification for the appropriateness of that monitoring should be necessary other than an explanation of the applicability of such monitoring to the unit in question, unless data or information is brought forward to rebut the assumption.
§64.4(b)	Presumptively acceptable monitoring includes:
§64.4(b)(1)	Presumptively acceptable or required monitoring approaches, established by the permitting authority in a rule that constitutes part of the applicable implementation plan required to Title I of the Act, that are designed to achieve compliance with this part for particular pollutant specific emissions unit.
§64.4(b)(2)	Continuous emission, opacity or predictive emission monitoring systems that satisfy applicable monitoring requirements and performance specifications as specified in §64.3(d).
§64.4(b)(3)	Excepted or alternative monitoring methods allow or approved to 40 CFR Part 75.
§64.4(b)(4)	Monitoring included for standards exempt from this part pursuant to §64.2(b)(1)(i) or (vi) to the extent such monitoring is applicable to the performance of the control device (and associated capture system) for the pollutant specific emission unit.
§64.4(b)(5)	Presumptively acceptable monitoring identified in guidance by EPA. Such guidance will address the requirements under §64.4(a), (b), and (c) to the extent practicable.
§64.4(c)(1)	Except as provided in paragraph available, §64.4(d), the owner or operator shall submit control device (and process and capture system, if applicable) operating parameter data obtained during the conduct of the applicable compliance or performance test conducted under conditions specified by the applicable rule. If the applicable rule does not specify testing conditions or only partially specifies test conditions, the performance test generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant specific emissions unit. Such data may be supplemented, if desired, by engineering assessments and manufacturer's recommendations to justify the indicator ranges (or, if applicable, the procedures for establishing such indicator ranges). Emission resting is not required to be conducted over the entire indicator range or ranges of potential emissions.
§64.4(c)(2)	The owner or operator must document that no changes to the pollutant specific emissions unit, including the control device and capture system, have taken place that could result in a significant change in the control system performance or the selected ranges or designated conditions for the indicators to be monitored since the performance or compliance tests were conducted.
§64.4(d)(1)	If existing data from unit specific compliance or performance testing specified in §64.4(c) is not available, the owner or operator shall submit a test plan and schedule for obtaining such data in accordance with §64.4(e) or submit a request under §64.4(d)(2).
§64.4(d)(2)	If existing data from unit specific compliance or performance testing specified in §64.4(c) is not available, the owner or operator may submit indicator ranges (or procedures for establishing ranges) that rely on engineering assessments and other data, provided that the owner or operator demonstrates that factors specific to the type of monitoring, control device, or pollutant specific emission unit make compliance or performance testing unnecessary to establish indicator ranges at levels that satisfy the criteria in if existing data from unit specific compliance or performance testing specified in §64.4(c) is not available, §64.3(a).
§64.4(f)	If a control device is common to more than one Pollutant Specific Emissions Unit, the owner or operator may submit monitoring for the control device and identify the pollutant specific emissions units affected and any process or associated capture device conditions that must be maintained or monitored in accordance with §64.3(a) rather than submit a separate description of monitoring for each pollutant specific emissions unit.
§64.4(g)	If a single Pollutant Specific Emissions Unit is controlled by more than one control device similar in design and operation, the owner or operator may submit monitoring that applies to all the control devices and identify the control devices affected and any process or associated capture device conditions that must be maintained or monitored in accordance with §64.3(a) rather than submit a separate description of monitoring for each control device.

7 DE Admin. Code 1130 (Title V) State Operating Permit Compliance Assurance Monitoring (CAM) Plan	AQM-1001EE *(continued)*

Part D: BACKGROUND DATA AND INFORMATION

THIS SECTION IS TO BE USED TO PROVIDE BACKGROUND DATA AND INFORMATION FOR EACH PSEU IN ORDER TO SUPPLEMENT THE SUBMITTAL REQUIREMENTS SPECIFIED IN 40 CFR 64.4. IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS **AQM-1001EE-PART D –BACKGROUND DATA AND INFORMATION**. FAILURE TO COMPLETE THIS SECTION IN ITS ENTIRETY MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPLETE OR DENIED.

PSEU Identification: Emissions Unit No. 15; Emissions points 15-1 and 15-2

PSEU Description: Marine Vapor Recovery (MVR) System

POLLUTANT	CONTROL DEVICE	EMISSION LIMITATION OR STANDARD[A]	MONITORING REQUIREMENT[B]
VOC	MV Control System	Condition 3, Table 1 (b)(5)(i)(A)	Condition 3, Table 1 (b)(5)(iv)
		Condition 3, Table 1 (b)(5)(i)(B)	

Are any of the emission limitations and standards identified above listed as Presumptively Acceptable Monitoring pursuant to §64.4(b)? NO

If you marked "YES," please identify the emission limitations and standards:

TESTING & MONITORING INFORMATION[C]

Date of Most Recent Stack Test:	12/22/2011	Continuous Emission Monitor(s) Used?	NO
Identification of Reference Methods:	25A	Continuous Emission Monitor(s): If yes, identify Manufacturer, Make, Model Number	Manufacturer: N/A Make: N/A Model #: N/A
Outcome of Most Recent Stack Test[D]:	See Test Report 3/15/2012	Continuous Emission Monitor(s): If yes, identify parameter(s) monitored	No

CONTROL DEVICE OPERATING PARAMETER DATA PURSUANT TO §64.4(c)(1).[E]

Are you submitting control device operating parameter data conducted during a compliance or performance tests conducted under conditions specified by the applicable requirement pursuant to the requirements of §64.4(c)(1)? NO	If you marked "YES," provide documentation that no changes to the pollutant specific emissions unit, including the control device and capture system have taken place that could result in a significant change in the control system performance or the selected ranges or designated conditions for the indicators to be monitored since the performance or compliance tests were conducted. **ATTACH AND LABEL AS AQM-1001EE-PART D – Control Device Operating Parameter Data**

[A] Provide the Condition Number from the 7 **DE Admin. Code** 1130 (Title V) State Operating Permit or the Regulatory Citation or restate the condition or regulatory requirement using the numbering system established in your permit. An applicable requirement is defined under 7 **DE Admin. Code** 1130 Section 2. Remember to include Emission Limitations, Emission Standards, Work Practice Standards, and Operational Limitations.

[B] Provide the Condition Number from the 7 **DE Admin. Code** 1130 (Title V) State Operating Permit or the Regulatory Citation or restate the condition or regulatory requirement using the numbering system established in your operating permit. Monitoring is defined in 7 **DE Admin. Code** 1130 Section 6.1.3.

[C] Only complete this section if you have data that fulfills the requirement of §64.4(c).

[D] IT IS SUFFICIENT TO REFERENCE A PREVIOUSLY SUBMITTED REPORT.

[E] Only complete this section if you have data that fulfills the requirement of §64.4(c).

Part E: CAM MONITORING APPROACH CRITERIA

COMPLETE THIS SECTION FOR **EACH** PSEU THAT NEEDS TO BE ADDRESSED IN THIS CAM PLAN SUBMITTAL. THIS SECTION MAY BE COPIED AS NEEDED. THIS SECTION IS TO BE USED TO PROVIDE MONITORING DATA AND INFORMATION FOR **EACH** INDICATOR SELECTED FOR EACH PSEU IN ORDER TO MEET THE MONITORING DESIGN CRITERIA SPECIFIED IN 40 CFR 64.3 AND 64.4. IF MORE THAN TWO INDICATORS ARE BEING SELECTED FOR A PSEU OR IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS ATTACHMENT **AQM-1001EE – PART E: CAM MONITORING APPROACH CRITERIA**. WITH THE APPROPRIATE PSEU DESIGNATION, POLLUTANT, AND INDICATOR NOS. FAILURE TO COMPLETE THIS SECTION IN ITS ENTIRETY MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPLETE OR DENIED.

1.a. PSEU IDENTIFICATION: Unit 15	1.b. POLLUTANT: VOC	1.c. INDICATOR NO. 1:[A] Loading rate	1.d. INDICATOR NO. 2:[A] Flame presence

2.a. GENERAL CRITERIA: To provide a reasonable assurance of compliance with the emission limitations or standards for the anticipated range of operations at a PSEU per 40 CFR 64.3(a).[B]

[redacted]	Indicator No. 1	Indicator No. 2
DESCRIBE THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Continuously monitor the hourly loading rate of all gasoline products at each pier during loading operations.	A sensing device will monitor continuously for the presence of a flame at the pilot light during the entire loading cycle.
ESTABLISH THE APPROPRIATE INDICATOR RANGE OR THE PROCEDURES FOR ESTABLISHING THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	Maximum barge loading of gasoline products shall not exceed: (1) 35,000 barrels per hour when loading simultaneously at two piers; (2) 25,000 barrels per hour when loading at one pier.	A flame must be present during the entire loading cycle.

2.b. PERFORMANCE CRITERIA: The owner or operator shall design the monitoring to meet the performance criteria listed in 40 CFR 64.3(b).

PROVIDE THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA SUCH AS DETECTOR LOCATION AND INSTALLATION SPECIFICATIONS:	Flow meters are installed on each gasoline loading line to each pier.	UV flame detectors are installed on each of the three pilots to each MVR unit.
PROVIDE VERIFICATION PROCEDURES, INCLUDING MANUFACTURER'S RECOMMENDATIONS, TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING FOR NEW OR MODIFIED MONITORING EQUIPMENT:	Stack testing is conducted in accordance with Condition 3, Table 1 - (b)(5)(iv)(C) every 5 years to verify compliance with the VOC emission limitations.	Stack testing is conducted in accordance with Condition 3, Table 1 - (b)(5)(iv)(C) every 5 years to verify compliance with the VOC emission limitations
PROVIDE QUALITY ASSURANCE AND CONTROL PRACTICES THAT ARE ADEQUATE TO ENSURE THE CONTINUING VALIDITY OF THE DATA. YOU MAY CONSIDER MANUFACTURER RECOMMENDATIONS OR REQUIREMENTS APPLICABLE	Stack testing is conducted in accordance with Condition 3, Table 1 - (b)(5)(iv)(C) every 5 years to verify compliance with the VOC emission limitations	Stack testing is conducted in accordance with Condition 3, Table 1 - (b)(5)(iv)(C) every 5 years to verify compliance with the VOC emission limitations.

TO THE MONITORING		

Part E: CAM MONITORING APPROACH CRITERIA - CONTINUED

COMPLETE THIS SECTION FOR **EACH** PSEU THAT NEEDS TO BE ADDRESSED IN THIS CAM PLAN SUBMITTAL. THIS SECTION MAY BE COPIED AS NEEDED. THIS SECTION IS TO BE USED TO PROVIDE MONITORING DATA AND INFORMATION FOR **EACH** INDICATOR SELECTED FOR EACH PSEU IN ORDER TO MEET THE MONITORING DESIGN CRITERIA SPECIFIED IN 40 CFR 64.3 AND 64.4. IF MORE THAN TWO INDICATORS ARE BEING SELECTED FOR A PSEU OR IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS ATTACHMENT **AQM-1001EE – PART E: CAM MONITORING APPROACH CRITERIA**. WITH THE APPROPRIATE PSEU DESIGNATION, POLLUTANT, AND INDICATOR NOS. FAILURE TO COMPLETE THIS SECTION IN ITS ENTIRETY MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPLETE OR DENIED.

2.b. PERFORMANCE CRITERIA: The owner or operator shall design the monitoring to meet the performance criteria listed in 40 CFR 64.3(b) - CONTINUED

[redacted]	Indicator No. 1	Indicator No. 2
PROVIDE THE MONITORING FREQUENCY:[C]	Continuous	Continuous
PROVIDE THE DATA COLLECTION PROCEDURES THAT WILL BE USED. EXAMPLES INCLUDE COMPUTERIZED DATA ACQUISITION AND HANDLING, ALARM SENSOR, OR MANUAL LOG ENTRIES ON GAUGE READINGS.	Data will be collected and stored via the Refinery Process Historian	The process control software contains an interlock which automatically shuts down flow to the MVR should a flame not be detected in the MVR.
IF APPLICABLE, PROVIDE THE DATA AVERAGING PERIOD FOR THE PURPOSE OF DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	Compliance is evaluated on an hourly average basis	Not applicable.

[A] INDICATOR RANGES MAY BE BASED ON A SINGLE MAXIMUM OR MINIMUM VALUE OR AT MULTIPLE LEVELS THAT ARE RELEVANT TO DISTINCTIVELY DIFFERENT OPERATING CONDITIONS, EXPRESSED AS A FUNCTION OF PROCESS VARIABLES, EXPRESSED AS MAINTAINING THE APPLICABLE INDICATOR IN A PARTICULAR OPERATIONAL STATUS OR DESIGNATED CONDITION, OR ESTABLISHED AS INTERDEPENDENT BETWEEN MORE THAN ONE INDICATOR.

[B] DESCRIBE ALL INDICATORS TO BE MONITORED WHICH SATISFIES 40 CFR 64.3(a). INDICATORS OR EMISSION CONTROL PERFORMANCE FOR THE CONTROL DEVICE AND ASSOCIATED CAPTURE SYSTEM MAY INCLUDE MEASURED OR PREDICTED EMISSIONS (INCLUDING VISIBLE EMISSIONS OR OPACITY), PROCESS AND CONTROL DEVICE OPERATING PARAMETERS THAT AFFECT CONTROL DEVICE (AND CAPTURE SYSTEM) EFFICIENCY OR EMISSION RATES, OR RECORDED FINDINGS OF INSPECTION AND MAINTENANCE ACTIVITIES.

[C] AT A MINIMUM, LARGE PSEUS MUST COLLECT FOUR OR MORE DATA VALUES EQUALLY SPACED OVER EACH HOUR AND THOSE VALUES AVERAGE THE VALUES, AS APPLICABLE, OVER THE APPLICABLE AVERAGING PERIOD AS DETERMINED IN ACCORDANCE WITH §64.3(B)(4)(i). FOR LARGE PSEUS, YOU MAY PROPOSE A REDUCED DATA COLLECTION FREQUENCY CONSISTENT WITH §64.3(B)(4)(ii). ALL OTHER PSEUS MUST COLLECT DATA AT LEAST ONCE PER 24-HOUR PERIOD.

Part E: CAM MONITORING APPROACH CRITERIA – CONTINUED

2.c. Special Criteria for the use of Continuous Emission, Opacity, or Predictive Monitoring System – CEMs, COMs, PEMs – pursuant to 40 CFR 64.3(d)

If a continuous emission monitoring system (CEMs), continuous opacity monitoring system (COMs) or predictive emission monitoring system (PEMs) is required pursuant to other authority under the Clean Air Act or state or local law, the owner or operator shall use such system to satisfy the requirements of 40 CFR 64.

Is the PSEU equipped with a CEMs, COMs, or PEMs as identified above? NO
Note: Refer to 40 CFR 64.2(b)(vi) which exempts emission limitations or standards for which a 7 ***DE Admin. Code*** *1130 (Title V) State Operating Permit specifies a continuous compliance determination method as defined in 40 CFR 64.1.*

If yes, does the use of a CEMs, COMs, or PEMs satisfy any of the requirements:

- ☐ Section 51.214 and Appendix P of 40 CFR Part 51
- ☐ Section 60.13 and Appendix B of 40 CFR Part 60
- ☐ Section 63.8 and any applicable performance specifications required pursuant to the applicable Subpart of 40 CFR Part 63
- ☐ 40 CFR Part 75
- ☐ Subpart H and Appendix IX of 40 CFR Part 266
- ☐ Comparable requirements and specifications established by the permitting authority

The use of a CEMs, COMs, and/or PEMs that satisfies any of the following monitoring requirements shall be deemed to satisfy the general design criteria in 40 CFR 64.3(a) and 64.3(b). A COMs may be subject to the criteria for establishing indicator ranges under 40 CFR 64.3(a).

2.d. Reporting of Exceedances: 40 CFR 64.3(d)(3)(i)

Identify the applicable requirement which requires reporting of exceedances:	Condition 3(c) of the Title V Permit
If an applicable requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions. Identify the criteria to develop an averaging period. Must meet the criteria specified in 40 CFR 64.3(b)(4).	Not applicable

2.e. Indicator range for a COMS

Provide an indicator range consistent with 40 CFR 64.3(a) for a COMs used to assure compliance with a particulate mater standard. 40 CFR 64.3(d)(3)(ii)	Not applicable
If an opacity standard applies to the pollutant specific emission unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in 40 CFR 64.3(a) after considering the type of control device and other site-specific factors applicable to the PSEU. 40 CFR 64.3(d)(3)(ii)	Not applicable
Indicator range for a CEMs used to assure compliance with a particulate matter standard	Not applicable

Part F: RATIONALE AND JUSTIFICATION

COMPLETE THIS SECTION FOR **EACH** PSEU THAT NEEDS TO BE ADDRESSED IN THIS CAM PLAN SUBMITTAL. THIS SECTION MAY BE COPIED AS NEEDED FOR EACH PSEU. THIS SECTION IS TO BE USED TO PROVIDE RATIONALE AND JUSTIFICATION FOR THE SELECTION OF **EACH** INDICATOR AND MONITORING APPROACH AND **EACH** INDICATOR RANGE IN ORDER TO MEET THE SUBMITTAL REQUIREMENTS SPECIFIED IN 40 CFR 64.4. FAILURE TO COMPLETE THIS SECTION IN ITS ENTIRETY MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPELTE OR DENIED.

1.a. PSEU IDENTIFICATION: Unit 15	1.b. POLLUTANT: VOC

2. INDICATORS AND THE MONITORING APPROACH. PROVIDE THE RATIONALE AND JUSTIFICATION FOR THE SELECTION OF THE INDICATORS AND THE MONITORING APPROACH USED TO MEASURE THE INDICATORS. ALSO PROVIDE ANY DATA SUPPORTING THE RATIONALE AND JUSTIFICATION. EXPLAIN THE REASONS FOR ANY DIFFERENCES BETWEEN THE VERIFICATION OF OPERATIONAL STATUS OF THE QUALITY ASSURANCE AND CONTROL PRACTICES PROPOSED AND THE MANUFACTURER'S RECOMMENDATIONS. TO JUSTIFY THE APPROPRIATENESS OF THE MONITORING ELEMENTS PROPOSED, THE OWNER OR OPERATOR MAY RELY IN PART ON EXISTING APPLICABLE REQUIREMENTS THAT ESTABLISH THE MONTIORING FOR THE APPLICABLE POLLUTANT SPECIFIC EMISSIONS UNIT OR A SIMILAR UNIT. IF AN OWNER OR OPERATOR RELIES ON PRESUMPTIVELY ACCEPTABLE MONITORING, NO FURTHUR JUSTIFICATION FOR THE APPROPRIATENESS OF THAT MONITORING SHOULD BE NECESSARY OTHER THAN AN EXPLANATION OF THE APPLICABILITY OF SUCH MONITORING TO THE UNIT IN QUESTION, UNLESS DATA OR INFORMATION IS BROUGHT FORWARD TO REBUT THE ASSUMPTION. FOR A LIST OF PRESUMPTIVELY ACCEPTABLE MONITORING SEE §64.4(b). (IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS **Attachment AQM-1001EE – Part F – Indicators and Monitoring Approach** WITH THE APPROPRIATE PSEU DESIGNATION AND POLLUTANT):

The proposed indicators and monitoring approach are applicable requirements from Permit AQM-003/00016 - Part 2 (Revision 5) used to demonstrate compliance with the VOC limitations.

Stack testing conducted in December 2011 demonstrated compliance with the VOC emissions limitations at the proposed indicator ranges. Therefore, DCRC will be in compliance with the emission limitations by operating within the indicator ranges

Part F: RATIONALE AND JUSTIFICATION

COMPLETE THIS SECTION FOR **EACH** PSEU THAT NEEDS TO BE ADDRESSED IN THIS CAM PLAN SUBMITTAL. THIS SECTION MAY BE COPIED AS NEEDED FOR EACH PSEU. THIS SECTION IS TO BE USED TO PROVIDE RATIONALE AND JUSTIFICATION FOR THE SELECTION OF **EACH** INDICATOR AND MONITORING APPROACH AND **EACH** INDICATOR RANGE IN ORDER TO MEET THE SUBMITTAL REQUIREMENTS SPECIFIED IN 40 CFR 64.4. FAILURE TO COMPLETE THIS SECTION IN ITS ENTIRETY MAY RESULT IN THE APPLICATION BEING DEEMED INCOMPELTE OR DENIED.

3. INDICATOR RANGES: PROVIDE THE RATIONALE AND JUSTIFICATION FOR THE SELECTION OF THE INDICATOR RANGES. THE RATIONALE AND JUSTIFICATION SHALL INDICATE HOW **EACH** INDICATOR RANGE WAS SELECTED BY EITHER A COMPLIANCE OR PERFORMANCE TEST, A TEST PLAN AND SCHEDULE, OR BY ENGINEERING ASSESSMENTS. DEPENDING ON WHICH METHOD IS BEING USED FOR EACH INDICATOR RANGE, INCLUDE THE SPECIFIC INFORMATION REQUIRED BELOW FOR THAT SPECIFIC INDICATOR RANGE. (IF ADDITIONAL SPACE IS NEEDED, ATTACH AND LABEL AS **Attachment AQM-1001EE – Part F – Indicator Ranges** WITH THE APPROPRIATE PSEU DESIGNATION AND POLLUTANT):

- COMPLIANCE OR PERFORMANCE TEST(S) (INDICATOR RANGES DETERMINED FROM CONTROL DEVICE OPERATING PARAMETER DATA OBTAINED DURING A COMPLIANCE OR PERFORMANCE TEST CONDUCTED UNDER REGULATORY SPECIFIED CONDITIONS OR UNDER CONDITIONS REPRESENTATIVE OF MAXIMUM POTENTIAL EMISSIONS UNDER ANTICIPATED OPERATING CONDITIONS. SUCH DATA MAY BE SUPPLEMENTED BY ENGINEERING ASSESSMENTS AND MANUFACTURER'S RECOMMENDATIONS). THE RATIONALE AND JUSTIFICATION SHALL INCLUDE A SUMMARY OF THE COMPLIANCE OR PERFORMANCE TEST RESULTS THAT WAS USED TO DETERMINE THE INDICATOR RANGE AND DOCUMENTATION INDICATING THAT NO CHANGES HAVE TAKEN PLACE THAT COULD RESULT IN A SIGNIFICANT CHANGE IN THE CONTROL SYSTEM PERFORMANCE OR THE SELECTED INDICATOR RANGES SINCE THE COMPLIANCE OR PERFORMANCE TEST WAS CONDUCTED.
- TEST PLAN AND SCHEDULE (INDICATOR RANGES WILL BE DETERMINED FROM A PROPOSED IMPLEMENTATION PLAN AND SCHEDULE FOR INSTALLING, TESTING AND PERFORMING ANY OTHER APPROPRIATE ACTIVITIES PRIOR TO USE OF THE MONITORING). THE RATIONALE AND JUSTIFICATION SHALL INCLUDE THE PROPOSED IMPLEMENTATION PLAN AND SCHEDULE THAT WILL PROVIDE FOR USE OF THE MONITORING AS EXPEDITIOUSLY AS PRACTICABLE AFTER APPROVAL OF THIS CAM PLAN, BUT IN NO CASE SHALL THE SCHEDULE FOR COMPLETING INSTALLATION AND BEGINNING OPERATION OF THE MONITORING EXCEED 180 DAYS AFTER ISSUANCE OF THE OPERATING PERMIT INCORPORATING THE CAM REQUIREMENTS.
- ALTERNATIVELY: CONSISTENT WITH 64.4(d)(2) ENGINEERING ASSESSMENTS (INDICATOR RANGES OR THE PROCEDURES FOR ESTABLISHING INDICATOR RANGES ARE DETERMINED FROM ENGINEERING ASSESSMENTS AND OTHER DATA, SUCH A MANUFACTURERS' DESIGN CRITERIA AND HISTORICAL MONITORING DATA, BECAUSE FACTORS SPECIFIC TO THE TYPE OF MONITORING, CONTROL DEVICE, OR PSEU MAKE COMPLIANCE OR PERFORMANCE TESTING UNNECESSARY). THE RATIONALE AND JUSTIFICATION SHALL INCLUDE DOCUMENTATION DEMONSTRATING THAT COMPLIANCE TESTING IS NOT REQUIRED TO ESTABLISH THE INDICATOR RANGE.

RATIONALE AND JUSTIFICATION:

The proposed indicator ranges are applicable requirements from Permit AQM-003/00016 - Part 2 (Revision 5) used to demonstrate compliance with the VOC limitations.

Stack testing conducted in December 2011 demonstrated compliance with the VOC emissions limitations at the proposed indicator ranges. Therefore, DCRC will be in compliance with the emission limitations by operating within the indicator ranges.

Part G: RESPONSIBLE OFFICIAL SIGNATURE BLOCK

Prior to approval of monitoring that satisfies 40 CFR Part 64, Compliance Assurance Monitoring, the owner or operator is subject to the requirements of 7 **DE Admin. Code** 1130 Section 6.1.3.1.2.

I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. By signing this form, I certify that I have not changed, altered, or deleted any portions of this application.

Herman Seedorf — 5/21/12

Signature of Responsible Official — Date

Herman Seedorf

Typed Name of Responsible Official

Refinery Manager

Title of Responsible Official

Responsible Official Phone Number: (302) 834-6000

Part H: SUBMITTAL INFORMATION

Submit the original and two copies to:

State of Delaware – DNREC
Division of Air and Waste Management
Air Quality Management Section
156 South State Street
Dover, DE 19901
Attn: Program Administrator

Delaware City
Refining Company

CMRRR No. 7009 0080 2634 7893

December 5, 2012

Mr. Ali Mirzakhalili
Division Director – Division of Air Quality
Delaware Department of Natural Resources and Environmental Control
Air Quality Management Section
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

Re: Delaware City Refining Company, LLC.
Regulation 1130 (Title V) Operating Permit Program
Application for Permit Modification

Dear Mr. Mirzakhalili:

The Delaware City Refining Company, LLC ("DCRC") herby submits (1) original and (1) copy of our Regulation 1130 (Title V) State Operating Permit Program Application for Modification of Permits AQM-003/00016 – Part 1 (Renewal 1)(Revision 5), Part 2 (Revision 5) and Part 3 (Renewal 1)(Revision 5) (collectively "the Permit") for the Delaware City Refinery located in Delaware City, Delaware.

DCRC is submitting this application to request that the applicable requirements of the following Regulation 1102 operating permits issued by the Delaware Department of Natural Resources and Environmental Control ("DNREC") be incorporated into the Permit:

- APC-94/0710-CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)(NO_x RACT) – Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project dated October 22, 2012
- APC-82/1209-OPERATION (Amendment 7) – Petroleum Coke Storage and Handling Complex dated June 14, 2012
- APC-98/0522-OPERATION (Amendment 1)(NSPS) – Cracked Naphtha Hydrotreater Heater 25-H-401 and Reboiler Heater 25-H-402 dated August 15, 2012
- APC-98/0523-OPERATION (Amendment 1)(NSPS) – Cracked Naphtha Hydrotreater Unit dated August 15, 2012
- APC-80/0868-OPERATION (Amendment 3)(MACT)(VOC RACT)(NSPS) / APC-80/0869-OPERATION (Amendment 6)(MACT)(VOC RACT)(NSPS) dated June 22, 2012

Delaware City
Refining Company

- APC-97/0503-OPERATION (Amendment 8)(NSPS) – CCUs I and II dated July 3, 2012

Please note that this submittal contains form AQM-1001BB (compliance certification). A certification of compliance through June 30, 2012 was submitted in August 2012 in accordance with the requirements of the current Title V permit. This submittal contains an up to date (July 1, 2012 through October 31, 2012) compliance certification for only those permit terms requested to be modified through this permit amendment process.

One (1) copy is being submitted to the United States Environmental Protection Agency in Philadelphia, Pennsylvania.

If you have any questions or comments regarding this letter, please contact me at 302-834-6053.

Sincerely,

Thomas S. Godlewski, Jr.
Senior Environmental Engineer

\Enclosures

cc: Section Chief
United States Environmental Protection Agency
Associate Director of Enforcement (3AP12)
1650 Arch Street
Philadelphia, PA 19103
CMRRR # 7009 0080 2634 7909

Delaware City
Refining Company

bcc:

H.Chelpaty, DCRC

R. Muche, DCRC

File: AI-12-03 \ Title V Permits \ Title V Applications \ 2012-11 – Title V Modifications

TITLE V OPERATING PERMIT
AQM-003/00016 – PART 1 (Renewal 1)(Revision 5)
AQM-003/00016 – PART 2 (Revision 5)
AQM-003/00016 – PART 3 (Renewal 1)(Revision 5)

APPLICATION FOR MODIFICATION

Delaware City
Refining Company

DELAWARE CITY REFINING COMPANY LLC
DELAWARE CITY REFINERY
DELAWARE CITY, DELAWARE
FACILITY ID #1000300016

November 2012

TABLE OF CONTENTS

SECTION NO.	DESCRIPTION
1	Introduction
2	Requested Permit Changes
3	Compliance Assurance Monitoring

TABLES

Table 1-1:	Summary of Incorporation of DE Reg. 1102 Permit Conditions
Table 1-2:	Compliance Assurance Monitoring (CAM) Applicability Determination

ATTACHMENTS

Attachment 1:	Title V Permit Mark-up
Attachment 2:	Regulation 1102 Operating Permits
Attachment 3:	AQM-1001 Administrative Information
Attachment 4:	AQM-1001BB Compliance Certification

Application for Permit Modification
Delaware City Refining Company, LLC
Title V Operating Permit AQM-003/00016 – Parts 1, 2, & 3

1. Introduction

This is an application for the modification of Regulation No. 30 (Title V) State Operating Permits AQM-003/00016 – Part 1 (Renewal 1)(Revision 5), Part 2 (Revision 5) and Part 3 (Renewal 1)(Revision 5) (collectively the "Permit") issued to The Delaware City Refining Company LLC ("DCRC") for operation of emission units at the Delaware City Refinery located in Delaware City, Delaware (the "Refinery"). This application is being submitted in accordance with Condition 2.m of the Permit.

2. Requested Permit Changes

DCRC is requesting to incorporate terms and conditions from issued Regulation 1102 Operating Permits which have not yet been incorporated into the Permit. Five Regulation 1102 Operating Permits are being proposed to be incorporated through this permit application:

- *APC—94/0710-CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)(NO_x RACT) – Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project* dated October 22, 2012
- *APC-82/1209-OPERATION (Amendment 7) – Petroleum Coke Storage and Handling Complex* dated June 14, 2012
- *APC-98/0522-OPERATION (Amendment 1)(NSPS) – Cracked Naphtha Hydrotreater Heater 25-H-401 and Reboiler Heater 25-H-402* dated August 15, 2012
- *APC-98/0523-OPERATION (Amendment 1)(NSPS) – Cracked Naphtha Hydrotreater Unit* dated August 15, 2012
- *APC-80/0868-OPERATION (Amendment 3)(MACT)(VOC RACT)(NSPS) / APC-80/0869-OPERATION (Amendment 6)(MACT)(VOC RACT)(NSPS)* dated June 22, 2012
- *APC-97/0503-OPERATION (Amendment 8)(NSPS) – CCUs I and II* dated July 3, 2012

A summary of the terms and conditions of these permits and the necessary modifications to incorporate these permits are provided in Table 1-1 and the proposed revisions are shown in the Title V Permit Mark-Up contained in Attachment 1. A copy of each of the Regulation 1102 operating permits are included In Attachment 2.

It should be noted that only pages containing proposed revisions are included in the Title V Permit Mark-Up contained in Attachment 1.

3. Compliance Assurance Monitoring (CAM)

An applicability determination of 40 CFR 64, Compliance Assurance Monitoring (CAM Rule) with respect to each unit has previously been performed and submitted through Title V permit renewal applications. Applicability determinations for units affected by the proposed modifications are included as Table 1-2. The results are present in Table 1-2. The determination was based on the following criteria:

1. The unit is subject to an emission limitation or standard for the applicable regulated air pollutant that is not exempt.

2. The unit uses an add-on control device to achieve compliance with an emission limitation or standard.

3. The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than major source threshold levels.

The applicability determination shows that no units are subject to the CAM Rule.

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-94/0710-OPERATION (Amendment 1) (NESHAP)(NOx RACT) – Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project – October 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Not applicable	None	None
1.2	Condition 2(i)	None	None
1.3	Condition 2(n)	None	None
1.4	Condition 2(d)	None	None
1.5	Not applicable	None	None
Emission Limitations			
2.1.1	Condition 3 - Table 1 (Part 2) ac.4.i	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.2	Condition 3 - Table 1 (Part 2) ac.3.i	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.3	Condition 3 - Table 1 (Part 2) ac.1.i	Revise Emission Standard to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.4	Condition 3 - Table 1 (Part 2) ac.2.i	Add Emission Standard to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.5	None	Add Emission Standard to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.2	Condition 3 - Table 1 (Part 2) ac.5.i	None	None
2.3	Condition 3 – Table 1 (Part 2) ob.2	None	None
Operational Limitations			
3.1	Condition 3 - Table 1 (Part 2) ac.2.ii	Renumber Operational Limitation only.	See Attachment 1 - Part 3 Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-94/0710-OPERATION (Amendment 1) (NESHAP)(NOx RACT) – Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project – October 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.2	Condition 3 - Table 1 (Part 2) ac.4.ii.A	None	None
3.3	Condition 3 - Table 1 (Part 2) ac.4.ii.B	None	None
3.4	Condition 3 - Table 1 (Part 2) ac.4.ii.C	None	None
3.5	Condition 3 - Table 1 (Part 2) ac.4.iii	None	None
3.6	Condition 3 - Table 1 (Part 2) ob.4.iA	None	None
Compliance Methodology, Testing and Monitoring Requirements			
4.1	Condition 3 – Table 1 (Part 2) ac.4.iv.A	None	None
	Condition 3 – Table 1 (Part 2) ac.1.ii.A	None	None
	Condition 3 – Table 1 (Part 2) ac.2.ii.A	None	None
	Condition 3 – Table 1 (Part 2) ac.6.ii	Add Compliance Methodology consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
4.2	Condition 3 – Table 1 (Part 2) ac.3.iii.A	None	None
4.3	Condition 3 – Table 1 (Part 2) ac.5.ii.A	None	None
4.4	Condition 3 – Table 1 (Part 2) ac.2	None	None
4.5	Condition 3 – Table 1 (Part 2) ac.4	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-94/0710-OPERATION (Amendment 1) (NESHAP)(NOx RACT) – Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project – October 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
4.6	Condition 3 - Table 1 (Part 2) ob.2, ob.4	None	None
Recordkeeping Requirements			
5.1	Condition 3.b.2	None	None
5.2.1-5.2.5	Condition 3 – Table 1 (Part 2) ac.4.vi	None	None
5.2.6	Condition 3 – Table 1 (Part 2) ac.3.v.A	None	None
5.2.7	None	None	None
5.2.8	Condition 3 – Table 1 (Part 2) ob.iv	None	None
Reporting Requirements			
6.1	Condition 3.c.2.B	None	None
6.2	Condition 3.c.2.D	None	None
6.3	Condition 2.a.3	None	None
Administrative Conditions			
7.1	Condition 2.k	None	None
7.2	Not Applicable	None	None
7.3	Condition 2.m	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-82/1209-OPERATION (Amendment 7) – Petroleum Coke Storage and Handling Complex – June 14, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Not applicable	None	None
1.2	Condition 2(i)	None	None
1.3	Condition 2(n)	None	None
1.4	Condition 2(d)	None	None
1.5	Not applicable	None	None
Emissions Limitations			
2.1.1	Condition 3 – Table 1 (Part 2) db.1.i.A	Add conditions for new Petroleum Coke Storage and Handling Complex consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
2.1.2.	Condition 3 – Table 1 (Part 2) db.1.i.B	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
2.2	Condition 3 – Table 1 (Part 2) db.2.i.	Modify permit condition to incorporate the new Coke Storage and Handling Complex.	See Attachment 1 - Permit Markup
2.3	Condition 3 – Table 1 (Part 2) ob.2	None	None
2.4	Condition 3 – Table 1 (Part 2) db.1	Insert new permit condition db.1.i.C consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
2.5	Condition 3 – Table 1 (Part 2) db.1	Insert new permit condition db.1.i.D consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
Operational Limitations			
3.1	Condition 3 – Table 1 (Part 2) ob.4.i.A	None	None
3.2	Condition 3 – Table 1 (Part 2) db.1.ii.C	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

3.3	None	Insert new permit condition db.1.ii.H to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.4	None	Insert new permit condition db.1.ii.I to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.5	None	Insert new permit condition db.1.ii.J to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.6	None	Insert new permit condition db.1.ii.K to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.7	None	Insert new permit condition db.1.ii.L to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.8	None	Insert new permit condition db.1.ii.M to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
3.9	None	Insert new permit condition db.1.ii.N to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
Testing and Monitoring Requirements			
4.1	Condition 3.b	None	None
4.2	None	Insert new permit condition db.1.iv.C to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
4.3	Condition 3 – Table 1 (Part 2) db.2.iii	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
4.4	Condition 3 – Table 1 (Part 2) db.1.i.B	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 - Permit Markup
4.5	Condition 3 – Table 1 (Part 2) db.1.iv.A	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
4.6	Condition 3 – Table 1 (Part 2) ob.2	None	None
4.7	Condition 3 – Table 1 (Part 2) db.1.iv.B	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
4.8	None	Insert new permit condition in db.iii to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

4.9	Condition 3 – Table 1 (Part 2) ob.2	None	None
4.10	None	Insert new permit condition in db.iii to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
4.11	None	Insert new permit condition in db.iii to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
Record Keeping Requirements			
5.1	Condition 3.b	None	None
5.2.1	None	Insert new permit condition db.1.v.I to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
5.2.2	Condition 3 – Table 1 (Part 2) db.1.v.G	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
5.2.3	None	Insert new permit condition db.1.v.J to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
5.2.4	Condition 3 – Table 1 (Part 2) db.1.v.F	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
5.2.5	Condition 3 – Table 1 (Part 2) db.1.v.A	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
5.2.6	Condition 3 – Table 1 (Part 2) db.1.v.H	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
Reporting Requirements			
6.1-6.4	Condition 3 – Table 1 (Part 2) db.1.vi	Modify permit condition to be consistent with Reg 1102 permit.	See Attachment 1 – Permit Markup
Administrative Condition			
7.1	Condition 2.k	None	None
7.2	Condition 2.b	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-98/0522-OPERATION (Amendment 1) (NSPS) – Cracked Naphtha Hydrotreater Heater 25-H-401, Cracked Naphtha Hydrotreater Reboiler Heater 25-H-402 – August 15, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Condition 2(i)	None	None
1.2	Condition 2(n)	None	None
1.3	Condition 2(d)	None	None
1.4	Not applicable	None	None
Emissions Limitations			
2.1.1	Condition 3 – Table 1 (Part 2) ga.6.i.A	None	None
2.1.2	Condition 3 – Table 1 (Part 2) ga.4	None	None
2.1.3	Condition 3 – Table 1 (Part 2) ga.2	Modify permit condition to be consistent with PM_{10} emissions limits found in Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.4	Condition 3 – Table 1 (Part 2) ga.3	Modify permit condition to be consistent with SO_2 emissions limits found in Reg 1102 permit.	See Attachment 1 – Permit Markup
2.1.5	Condition 3 – Table 1 (Part 2) ga.5	Modify permit condition to be consistent with CO emissions limits found in Reg 1102 permit.	See Attachment 1 – Permit Markup
2.2	Condition 3 – Table 1 (Part 2) ga.7	None	None
2.3	Condition 3 – Table 1 (Part 2) ob.2	None	None
Operational Limitations			
3.1	Condition 3 – Table 1 (Part 2) ga.1.i.D	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-98/0522-OPERATION (Amendment 1) (NSPS) – Cracked Naphtha Hydrotreater Heater 25-H-401, Cracked Naphtha Hydrotreater Reboiler Heater 25-H-402 – August 15, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.2	Condition 3 – Table 1 (Part 2) ob.4.i.A	None	None
Compliance Methodology, Testing and Monitoring Requirements			
4.1	Condition 3 – Table 1 (Part 2) ga.6.ii.A, 2.iii.A, 5.ii	Modify the permit conditions to be consistent with the compliance methods found in the Reg. 1102 permit.	See Attachment 1 – Permit Markup
4.2	Condition 3 – Table 1 (Part 2) ga.4.iii	Modify permit conditions to be consistent with the NOx compliance methodologies found in the Reg. 1102 permit.	See Attachment 1 – Permit Markup
4.3	Condition 3 – Table 1 (Part 2) ga.3.iii.A	None	None
4.4.1	Condition 3 – Table 1 (Part 2) ga.6.iii	Modify permit conditions to be consistent with the VOC stack testing requirement found in the Reg. 1102 permit	See Attachment 1 – Permit Markup
4.4.2	Condition 3 – Table 1 (Part 2) ga.6.iii	Modify permit conditions to be consistent with the PM_{10} stack testing requirement found in the Reg. 1102 permit	See Attachment 1 – Permit Markup
4.4.3	Condition 3 – Table 1 (Part 2) ga.5.iii	Modify permit conditions to be consistent with the CO stack testing requirement found in the Reg. 1102 permit	See Attachment 1 – Permit Markup
4.5	Condition 3(b)	None	None
4.6	Condition 3 – Table 1 (Part 2) ga.7.iii	None	None
4.7	Condition 3 – Table 1 (Part 2) ga.1.iii.C	None	None
4.9	Condition 3 – Table 1 (Part 2) ob.2	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-98/0522-OPERATION (Amendment 1) (NSPS) – Cracked Naphtha Hydrotreater Heater 25-H-401, Cracked Naphtha Hydrotreater Reboiler Heater 25-H-402 – August 15, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
Record Keeping Requirements			
5.1	Condition 3.b	None	None
5.2.1	Condition 3 – Table 1 (Part 2) ga.1.iv.A	None	None
5.2.2	Condition 3.b	None	None
5.2.3	Condition 3 – Table 1 (Part 2) ga.7.iv	None	None
5.2.4	Condition 3 – Table 1 (Part 2) ga.1.iv.D	None	None
Reporting Requirements			
6.1-2	Condition 3.c.2.ii.B-D	None	None
6.3	Condition 2.a.3	None	None
Administrative Conditions			
7.1	Condition 2.k	None	None
7.2	Not applicable	None	None
7.3	Condition 2.b	None	None

Permit APC-98/0523-OPERATION (Amendment 1) – Cracked Naphtha Hydrotreater Unit – August 15, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
No permit revisions required. Update permit revision references to A1 only.			

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-80/0868-OPERATION (Amendment 3) (MACT) (VOC RACT) (NSPS)
Permit APC-80/0869-OPERATION (Amendment 6) (MACT) (VOC RACT) (NSPS)
The Tank Double Seals Project – June 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Condition 2(i)	None	None
1.2	Condition 2(n)	None	None
1.3	Condition 2(d)	None	None
1.4	Not applicable	None	None
Emissions Limitations			
2.1.1	None	Add condition in Condition 3 – Table 1 (Part 1) fc.1.i and revise ff.1.v consistent with Regulation 1102 permit	See Attachment 1 – Permit Markup
2.2	Condition 3 – Table 1 (Part 2) ob.2	None	None
Operational Limitations			
3.1.1	Condition 3 – Table 1 (Part 1) fc.1.iii.F	Remove Tank 166 from Operational Limitation F. Add new Operational Limitation J consistent with Regulation 1102 permit.	See Attachment 1 – Permit Markup
3.1.2	Condition 3 – Table 1 (Part 1) fc.1.ii.F	Remove Tanks 16 from the exception statement in the Equipment Standard.	See Attachment 1 – Permit Markup
3.1.3	Condition 3 – Table 1 (Part 1) fc.1.ii.H	Revise permit term language to be consistent with the Regulation 1102 permit.	See Attachment 1 – Permit Markup
3.1.4	Condition 3 – Table 1 (Part 1) fc.1.ii.G	None	None
3.1.5	Condition 3 – Table 1 (Part 1) fc.1.iii.I	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-80/0868-OPERATION (Amendment 3) (MACT) (VOC RACT) (NSPS)
Permit APC-80/0869-OPERATION (Amendment 6) (MACT) (VOC RACT) (NSPS)
The Tank Double Seals Project – June 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.1.6	Condition 3 – Table 1 (Part 1) fc.1.iii.H	None	None
3.1.7	Condition 3 – Table 1 (Part 1) fc.1.ii.A,C	None	None
3.1.8	Condition 3 – Table 1 (Part 1) fc.1.ii.A,C	None	None
3.1.9	Condition 3 – Table 1 (Part 1) fc.1.ii.A,C,E	None	None
3.1.10	Condition 3 – Table 1 (Part 1) fc.1.ii.A,C,E	None	None
3.1.11	Condition 3 – Table 1 (Part 1) fc.1.ii.B	None	None
3.1.12	Condition 3 – Table 1 (Part 1) fc.1.ii.D	None	None
3.1.13	Condition 3 – Table 1 (Part 1) fc.1.ii.I	None	None
3.2.1	None	Add Operational Limitation in Condition 3 – Table 1 (Part 1) ff.1.iii consistent with Regulation 1102 permit.	See Attachment 1 – Permit Markup
3.2.2	None	Add Operational Limitation C in Condition 3 – Table 1 (Part 1) ff.1.ii	See Attachment 1 – Permit Markup
3.2.3	None	Add Operational Limitation C in Condition 3 – Table 1 (Part 1) ff.1.ii	See Attachment 1 – Permit Markup
3.2.4	Condition 3 – Table 1 (Part 1) ff.1.i	None	None
3.2.5	Condition 3 – Table 1 (Part 1) ff.1.ii.B	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-80/0868-OPERATION (Amendment 3) (MACT) (VOC RACT) (NSPS)
Permit APC-80/0869-OPERATION (Amendment 6) (MACT) (VOC RACT) (NSPS)
The Tank Double Seals Project – June 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.3	Condition 3 – Table 1 (Part 2) ob.4.i.A	None	None
Inspection and Compliance Requirements			
4.1.1	Condition 3 – Table 1 (Part 1) fc.1.v.B -=> fb.1.iv.A&B	None	None
4.1.2	Condition 3 – Table 1 (Part 1) fc.1.v.B --> fb.1.iv.C	None	None
4.1.3	Condition 3 – Table 1 (Part 1) fc.1.v.B --> fb.1.iv.I	None	None
4.1.4	Condition 3 – Table 1 (Part 1) fc.1.v.B --> fb.1.iv.I	None	None
4.1.5	Condition 3 – Table 1 (Part 1) fc.1.v.B --> fb.1.iv.H	None	None
4.2.1	Condition 3 – Table 1 (Part 1) ff.1.vii.B.1	None	None
4.2.2	Condition 3 – Table 1 (Part 1) ff.1.vii.B.2	None	None
4.2.3	None	Add Condition 3 – Table 1 (Part 1) ff.1.vii.B.3 in accordance with the Regulation 1102 permit.	See Attachment 1 – Permit Markup
4.3	Condition 3 – Table 1 (Part 1) fc.1.iv.A & ff.1.vi.B	Revise permit conditions to be consistent with the Regulation 1102 permit.	See Attachment 1 – Permit Markup
4.4	Condition 3 – Table 1 (Part 2) oa	None	None
Record Keeping Requirements			
5.1	Condition 3.b	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-80/0868-OPERATION (Amendment 3) (MACT) (VOC RACT) (NSPS)
Permit APC-80/0869-OPERATION (Amendment 6) (MACT) (VOC RACT) (NSPS)
The Tank Double Seals Project – June 22, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
5.2	None	None	None
5.3	Condition 3 – Table 1 (Part 1) fc.1.vi.A	None	None
5.4	None	Add Condition 3 – Table 1 (Part 1) fc.vi.F & ff.viii.C	See Attachment 1 – Permit Markup
5.5	Condition 3 – Table 1 (Part 1) ff.1.viii.A	None	None
Reporting Conditions			
6.1-2	Condition 3.c.2.ii.B-D	None	None
6.3	Condition 2.a.3	None	None
Admininstrative Conditions			
7.1	Condition 2.k	None	None
7.2	Condition 2.b	None	None

Permit APC-97/0503-OPERATION (Amendment 8) (NSPS) – CCUs I and II – July 3, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
General Provisions			
1.1	Not applicable	None	None
1.2	Condition 2(i)	None	None
1.3	Condition 2(n)	None	None
1.4	Condition 2(d)	None	None
1.5	Not applicable	None	None

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-97/0503-OPERATION (Amendment 8) (NSPS) – CCUs I and II – July 3, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
Emission Limitations			
2.1.1.1 (NO_x)	Condition 3 – Table 1 (Part 3) d.4.i.C	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.1.2 (NO_x)	Condition 3 – Table 1 (Part 3) d.4.i.D	None	None
2.1.2 (SO_2)	None Condition 3 – Table 1 (Part 3) d.3	Add Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.3 (CO)	Condition 3 – Table 1 (Part 3) d.5.i.B	Add Emission Standard to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.4 (PM_{10})	Condition 3 – Table 1 (Part 3) d.2.i.B	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.5 (TSP)	Condition 3 – Table 1 (Part 3) d.2.i.D	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.6 (VOC)	Condition 3 – Table 1 (Part 3) d.6.i.B	Revise Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.7 (H_2SO_4)	Condition 3 – Table 1 (Part 3) d.7	Add Emission Standards to be consistent with Reg. 1102 permit	See Attachment 1 - Part 3 Permit Markup
2.1.8 (Pb)	Condition 3 – Table 1 (Part 3) d.8	Add Emission Standards to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
2.2	Condition 3 – Table 1 (Part 3) d.9	Update permit reference only	See Attachment 1 - Part 3 Permit Markup
2.3	Condition 3 – Table 1 (Part 3) e.2.i	None	None
Operational Limitations			
3.1	Condition 3 – Table 1 (Part 3) d.1.ii.A-C	Revise Operational Limitation to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-97/0503-OPERATION (Amendment 8) (NSPS) – CCUs I and II – July 3, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
3.2	Condition 3 – Table 1 (Part 3) d.4.ii	Revise Operational Limitation to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
3.3.1	Condition 3 – Table 1 (Part 3) d.5.i.C	Revise Operational Limitation to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
3.3.2	Condition 3 – Table 1 (Part 3) d.4.i.D	Revise Operational Limitation to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
3.3.3	Condition 3 – Table 1 (Part 3) d.1.ii.F	Revise Operational Limitation to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
3.4	Condition 3 – Table 1 (Part 3) e.1.i.A	None	None
Compliance Methodology, Testing and Monitoring Requirements			
4.1	Condition 3 – Table 1 (Part 3) d.4.iii	Update permit references only	See Attachment 1 - Part 3 Permit Markup
4.2	Condition 3 – Table 1 (Part 3) d.5.iii.A Condition 3 – Table 1.f.5.iii-iv	Update permit references only	See Attachment 1 - Part 3 Permit Markup
4.3	Condition 3 – Table 1 (Part 3) d.2.iii, d.6.iii, d.7.iii Condition 3 – Table 1 (Part 3) f.2.iii, f.5.iii, f.6.iii	Update permit references only	See Attachment 1 - Part 3 Permit Markup
4.4	Condition 3 – Table 1 (Part 3) d.2.iii Condition 3 – Table 1 Part 3) f.2.iii	Update permit references only	See Attachment 1 - Part 3 Permit Markup
	Condition 3 – Table 1 (Part 3) d.3.iii Condition 3 – Table 1 (Part 3) f.3.iii	Revise/add Compliance Methods to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-97/0503-OPERATION (Amendment 8) (NSPS) – CCUs I and II – July 3, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
4.5	Condition 3 – Table 1 (Part 3) d.9.iii&iv	Revise/add Compliance Methods to be consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
4.6.1	Condition 3 – Table 1 (Part 3) d.2.iv.A.1	None	None
4.6.2	Condition 3 – Table 1 (Part 3) d.2.iv.A.2	None	None
4.6.3	Condition 3 – Table 1 (Part 3) d.6.iv.2	None	None
4.6.4	Condition 3 – Table 1 (Part 3) d.7.iv.A	Add Monitoring/Testing requirements consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
4.7	Condition 3 – Table 1 (Part 3) d.3	Add Monitoring/Testing requirements consistent with Reg. 1102 permit.	See Attachment 1 - Part 3 Permit Markup
4.8	Condition 3 – Table 1 (Part 3) d.4.iii.B, d.1.iii.E, e.1.ii	Update permit references only	See Attachment 1 - Part 3 Permit Markup
4.9	Condition 3.b.1.iii	None	None
Recordkeeping Requirements			
5.1	Condition 3(b)	None	None
5.2.1	Condition 3 – Table 1 (Part 3) d.1.v.B.1-2	Revise Recordkeeping Requirement to be consistent with Reg. 1102 Permit	See Attachment 1 - Part 3 Permit Markup
5.2.2	Condition 3 – Table 1 (Part 3) d.1.v.B.6	Revise Recordkeeping Requirement to be consistent with Reg. 1102 Permit	See Attachment 1 - Part 3 Permit Markup
5.2.3	Condition 3 – Table 1 (Part 3) d.3.v.A	Add Recordkeeping Requirement to be consistent with Reg. 1102 Permit	See Attachment 1 - Part 3 Permit Markup
5.2.4	Condition 3 – Table 1 (Part 3) d.9.v	Revise Recordkeeping Requirement to be consistent with Reg. 1102 Permit	See Attachment 1 - Part 3 Permit Markup
5.2.6	Condition 3 – Table 1.(Part 3) d.4.v.A, d.5.v	Update permit references only	See Attachment 1 - Part 3 Permit Markup

Table 1-1: Summary of Incorporation of DE Reg. 1102 Permit Conditions

Permit APC-97/0503-OPERATION (Amendment 8) (NSPS) – CCUs I and II – July 3, 2012

Reg. 1102 Permit Condition	Equivalent or Similar Title V Condition, if any	Title V Permit Modification Requested	Comments
Reporting Requirements			
6.1	Condition 3.c.2.B	None	None
6.2	Condition 3.c.2.D	None	None
6.3	Condition 2.a.3	None	None
Administrative Conditions			
7.1	Condition 2.k	None	None
7.2	Not Applicable	None	None
7.3	Condition 3 – Table 1 (Part 3) d.1.vi.B	None	None

Table 1-2: Compliance Assurance Monitoring (CAM) Applicability Determination

EU	Emission Point	Emissions Unit Description	Subject to an CAM Applicable Emission Limitation Standard? (Y/N) [1]									Uses a Control Device? (Y/N, Pollutants) [2]	Uses a Continuous Compliance Method? (Y/N) [3]	Potential to Emit (PTE), TPY									Comments
			NOx	SO_2	PM	VOC	CO	Pb	H_2S/ TRS/ H_2SO_4	NH_3	HAPs			NOx	SO_2	PM	VOC	CO	Pb	H_2S	NH_3	HAPs	
														Major Source Threshold, TPY									
														100	100	100	100	100	100	100	100	N/A	
10	10-1	WWTP - Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU)	CAM applicability evaluation submitted with the Title V Renewal Application in May 2012																				
22	22-1	Fluid coke handling and storage facility	N	N	Y	N	N	N	N	N	N	No	N/A	N/A	N/A	27.2	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM affected unit because PTE does not exceed the major source threshold for any pollutant
25	25-4 and 25-5	CNHT reactor charge heater 25-H-401, CNHT reboiler heater 25-H-402, CNHT unit, reformer, butamer unit	Y	Y	Y	Y	Y	N	N	N	N	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM unit because the unit does not use a control device to achieve compliance.
40	Various	Tanks 47, 166, 205, 261	N	N	N	Y	N	N	N	N	N	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM unit because the unit does not use a control device to achieve compliance.
84	84-1, 84-2	CCU I & II	Y	Y	Y	Y	Y	Y	Y	N	N	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not a CAM unit because the unit does not use a control device to achieve compliance.

[1] Emissions limitations which were proposed after Nov. 15, 1990 pursuant to section 111 (NSPS) or 112 (NESHAPS) of the Act and are exempt from CAM requirements - 40 CFR 64.2(b)(i)
[2] Unit must use a control device to achieve compliance with any such limitation or standard - 40 CFR 64.2(a)(2)
[3] Emissions limitations for which a permit specifies a continuous compliance method are exempt from CAM requirements - 40 CFR 64.2(a)(vi)

ATTACHMENT 1

Title V Permit Mark-Up

- Condition 3 – Table 1 (Part 1) fc – Emission Unit 40: Refinery Tank Farm Units With External Floating Roofs with Double and Single Seals Subject to Regulation 24, Section 30 and 40 CFR Part 63, Subpart CC (pages 120-124)

- Condition 3 – Table 1 (Part 1) ff – Emission Unit 40: Refinery Tank Farm Units With Fixed Roofs Subject to Regulation 1124, Section 31 and 40 CFR 63, Subpart CC (pages 129-132)

- Condition 3 – Table 1 (Part 2) ac - Emission Unit 10: Wastewater Treatment Plant (WWTP) – Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU) (pages 157-162)

- Condition 3 – Table 1 (Part 2) db – Emission Unit No. 22: Fluid Coke Handling and Storage Facility (pages 201-207)

- Condition 3 – Table 1 (Part 2) ga – Emission Unit No. 25: Reformer and Reformulated Gasoline 2000 Project (RFG 2K Project): Cracked Naphtha Hydrotreater (CNHT) Unit, Butamer Unit and Cooling Tower (pages 224-232)

- Condition 3 – Table 1 (Part 3) d – Emission Unit 84: Combined Cycle Units (pages 327-341)

- Condition 3 – Table 1 (Part 3) f – Combined Limits (pages 344-356)

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	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. Keep records describing the results of each seal gap measurement. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations. *[Reference 40 CFR 654(i) dated 8/18/1998 and 40 CFR 63.123(d) dated 12/23/2004]* B. Records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00* C. Records of the VOL stored, the period of storage and the maximum true vapor pressure during the storage period. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	
fc. Emission Unit 40: Refinery Tank Farm Units With External Floating Roofs with Double and Single Seals Subject to Regulation 24, Section 30 and 40 CFR part 63, Subpart CC: Tanks 001-TF-200. 002-TF-200, 003-TF-200, 004-TF-200, 005-TF-200, 006-TF-200, 007-TF-200, 008-TF-200, 009-TF-400, 10-TF-274, 11-TF-274, 12-TF-274, 044-TF-12, 048-TF-112, 050-TF-78, 051-TF-78, 065-TF-50, 072-TF-50, 073-TF-78, 135-TF-78, 136-TF-78, 137-TF-78, 145-TF-78, 146-TF-78, 147-TF-78, 161-TF-78, 162-TF-78,163-TF-153, 165-TF-153, 166-TF-112, 167-TF-50, 181-TF-78, 182-TF-78, 183-TF-153, 185-TF-153, 186-TF-112, 187-TF-50, 203-TF-112, 204-TF-50, 205-TF-153, 223-TF-112, 224-TF-112, 225-TF-133, 227-TF-400, 241-TF-50, 242-TF-153, 243-TF-112, 248-TF-200, 261-TF-50, 262-TF-153, 263-TF-112, 268-TF-200, 281-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, 286-TF-200, 580-TF-10 (Includes Group 1 and Group 2 MACT Tanks as defined in the Semi-Annual MACT-1 SSM reports)		
1. **Volatile Organic compounds (VOC).** i. Emission Standard: A. The emissions from Tanks 001-TF-200. 002-TF-200, 003-TF-200, 004-TF-200, 005-TF-200, 006-TF-200, 007-TF-200, 008-TF-200, 9-TF-400, 10-TF-274, 11-TF-274, 12-TF-274	iv. Compliance Method: Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. The Owner/Operator shall also: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]*	vii. Reporting: A. For all inspections, provide a 15 day telephone notification to allow the administrator to afford the opportunity to inspect the storage vessel prior to refilling. *[Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00 and 40 CFR 63.646(l) dated*

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
shall not exceed 27 tons of VOCs in any twelve consecutive months. *[Reference: ~~80/0870(A3)~~ Cond. 1]* B. The emissions from Tanks 47-TF-78, 166-TF-112, 205-TF-153, and 261-TF-50 shall not exceed 4.9 tons per 12 month rolling period. *[Reference APC-80/0868]* ii. Equipment Standards: With the exception of Tanks 048-TF-112, 051-TF-78, ~~166-TF-112,~~ 225-TF-133, 241-TF-50, 243-TF-112, 248-TF-200, ~~261-TF-50,~~ 263-TF-112, 268-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, and 286-TF-200 the following equipment standards are applicable: *[Reference: 7 **DE Admin Code** 1124, Section 30.c.3.i. dated 11/29/94 and 40 CFR 63.119 and 63.120 dated 1/17/1997]* A. The primary mechanical shoe-type seal shall completely cover the annular space between the edge of the floating roof and the tank wall. B. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 cm^2/meter of tank diameter and the width of any portion of the gap shall not exceed 3.81 cm. *[Reference: 40 CFR 63.120(b)(3) dated 1/17/97]* C. The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall. *[Reference: 40 CFR 63.(b)(6)(i) dated 1/17/97]* D. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 cm^2/meter of tank diameter and	A. Compliance with the Emission Standard shall be demonstrated either by using EPA's TANKS ~~3.14.09~~ program or an updated equivalent methodology approved by the Department, using monthly liquid throughput and the monthly average storage temperature of each tank. *[Reference: ~~80/0868 & 087070(A3) Cond. 1~~]* v. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. Perform semiannual inspections of the floating roofs and associated components detailed n Equipment Standards (E) through (I). *[Reference: 7 **DE Admin Code** 1124 Section 30.4 dated 11/29/94].* B. The Owner/Operator shall comply with the Monitoring/Testing requirements of Condition 3 – Table 1(fb)(iv). *[Reference: 40 CFR 63.120(b) dated 1/17/97]* vi. 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. Keep records describing the results of each seal gap measurement. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations. *[Reference 40 CFR 654(i) dated 8/18/1998 and 40 CFR 63.123(d) dated 12/23/2004]* B. Records of the types of volatile petroleum liquids stored. *[Reference: 7 **DE Admin Code** 1124*	*2/21/97]* B. Within 60 days of performing the gap measurements required by Regulation 24, Section 30(c), submit a report containing: 1. The date of measurement. 2. The raw data obtained in the measurement. 3. The calculations described in Regulation 1124, section 30(f). *[Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00]* C. When seal gap measurements exceed those specified in Regulation 1124, section 30(c), a report shall be furnished within 60 days of the date of seal gap measurements. the report shall identify the vessel and list each reason why the vessel did not meet the specification of Section 30(f). The report shall also describe the actions necessary to bring the storage tank into compliance with the specification of Section 30(f). *[Reference: 7 **DE Admin Code** 1124 Section 30.6 dated 11/29/94 and 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* D. The Owner/Operator shall submit the reports listed below for the MACT Tanks: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report in accordance with 40 CFR 63.654(f); and 2. Periodic Reports in accordance with 40 CFR 63.654(g); and 3. Other reports in accordance with 40 CFR 63.654(h). 4. In the event an out of service tank is

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
the width of any portion of the gap shall not exceed 1.27cm. *[Reference:40 CFR 63.120(b)(4) dated 1/17/97]* E. There shall be no holes tears or other openings in either the shoe, seal fabric or seal envelope of both primary and secondary seals. *[Reference: 7 **DE Admin Code** 1124 Section 30.3.2.1 dated 11/29/94 and 40 CFR 63.120(b)(5)(ii) and (6)(ii) dated 1/17/97]* F. All openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves are equipped with: 1. Covers, seals or lids in the closed position except when the openings are in actual use. 2. Projections into the tank that remain below the liquid surface at all times. *[Reference: 7 **DE Admin Code** 1124 Section 30.3.3 dated 11/29/94]* G. Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports. *[Reference: 7 **DE Admin Code** 1124, Section 30.c.4. dated 11/29/94 and 40 CFR 63.119(c)(5)(ii) dated 1/17/1997]* H. Rim space vents ~~must~~ are to be set to open ~~or set~~ only when the floating roof is not floating or when the pressure beneath the rim seal exceeds ~~at~~ the manufacturer's recommended ~~setting when the roof is being floated off the leg supports~~. *[Reference: 7 **DE Admin Code** 1124, Section 30.~~3~~c.5. dated 11/29/94]* I. Emergency roof drains are provided with slotted membrane fabric covers or equivalent	*sec 30.5.1.1 dated 11/29/94]* C. Records of the maximum true vapor pressure of the liquid as stored. *[Reference: 7 **DE Admin Code** 1124 sec 30(e)(1)(ii) dated 11/29/94]* D. Records of the semiannual inspections required by Monitoring/Testing (A). *[Reference: 7 **DE Admin Code** 1124 sec 30(e)(1)(iii) dated 11/29/94]* E. For tanks containing liquid with a maximum true vapor pressure less than 1.5 psia but greater than 1.0 psia, the following records shall be kept: 1. Average monthly storage temperature; 2. Type of liquid stored; and 3. Maximum true vapor pressure. *[Reference: 7 **DE Admin Code** 1124 sec 30.5.2 dated 11/29/94]* F. For Tanks 166-TF-112, 205-TF-153 and 261-TF-50, the rolling 12 month VOC emissions. *[Reference: APC-80/0868]*	being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654. viii. 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]*

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
covers that cover at least 90 percent of the area of the opening. *[Reference: 7 **DE Admin Code** 1124, Section 30.c.6. dated 11/29/94 40 CFR 63.119(c)(2)(vi) dated 1/17/1997]* iii. Operational Limitations: A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. The practice of pumping of crude oil from one tank to another shall be minimized in an effort to control the emission of VOCs. *[Reference: **APC-80/0870(A3)** Cond. 4]* E. Tanks 48-TF-112 and 51-TF-78 shall contain only petroleum liquids with a maximum true vapor pressure of less than 1.0 psia (7.0 kPa). If the maximum true vapor pressure of greater than 1.0 psia (7.0 kPa), then the tank(s) shall comply with Regulation No. 1124 Section 30 as applicable. *[Reference: **APC-80/0869(A5)** Cond. No. 7]* F. Tanks ~~166-TF-112,~~ 241-TF-50, 243-TF-112, 248-TF-200, 263-TF-112, 268-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, and 286-TF-200 shall only be allowed to store petroleum liquids whose maximum true vapor pressure does not exceed 1.5 psia. *[Reference: 40 CFR 63.641 dated 8/18/98]* G. **[RESERVED]** H. The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports except during the initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled.		

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
[Reference: 40 CFR 63.119(c)(3) dated 12/21/2006] I. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical. *[Reference: 40 CFR 63.119(c)(4) dated 12/21/2006]* J. Tanks 166-TF-112, 205-TF-153 and 261-TF-50 shall only be allowed to store petroleum liquids whose maximum true vapor pressure does not exceed 76.6 kilopascals (11.1 psia). *[Reference: APC-80/0868]*		
fd. Emissions Unit 40 - Refinery Tank Farm Units With Fixed Roofs Subject to 40 CFR Part 63 - Subpart CC, 40 CFR Part 60 - Subpart Kb and Regulation 1124, Section 31: Tanks 71-TF-28, 78-TC-78, 470-TF-50 (Tank 71-TF-28 is a Group 1 MACT Tank and Tank 78-TC-78 is a Group 2 MACT Tank) Tanks 71-TF-28 and 470-TF-50 are fixed roof tanks with internal floating roofs to comply with the provisions of 40 CFR Part 60, Subpart Kb except as provided for in paragraphs 63.640(n)(8)(i) through 63.640(n)(8)(vi).		
1. **Volatile Organic Compounds (VOC).** i. Emission Standard: VOC emissions from Tank 470-TF-50 shall not exceed 0.9 tons in any rolling twelve month period. *[Reference: **81/0120(A2)**]* ii. Operational Limitations for Tanks 71-TF-28 and 470-TF-50: A. The internal floating roofs shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the surface of the liquid at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. The process of filling	iv. Compliance Method: A. Compliance with the Emission Standard shall be based on a maximum of 270 equivalent turnovers *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. Compliance with the Operational Limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* v. Monitoring/Testing In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Owner/Operator shall: A. For Tanks 71-TF-28 and 470-TF-50: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with	vii. Reporting: In addition to Condition 3(c)(2) of this permit, the Owner/Operator shall submit the following reports: A. If any of the conditions described in Monitoring Testing requirement (B)(3) are detected during the inspections required by Monitoring/Testing requirement (B), a report shall be furnished to the Department within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. *[Reference: 40 CFR 60.115b(a) dated 8/11/89]* B. If an extension is utilized in accordance with Monitoring/Testing requirement (C) of this section, the owner or operator shall, in

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
Automatic bleeder vents are to be closed at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Rim vents are to be set to open only when the cover is being off the leg supports or at the manufacturer's recommended setting. *[Reference: 40 CFR 60.112a(a)(2)] dated 12/18/80 and 40 CFR 63.119(b)(1) dated 1/17/97]* B. The maximum true vapor pressure of the stored liquid shall not exceed 11.1 psia. *[Reference: 40 CFR 60.112a(a) dated 12/18/80 and 40 CFR 63.119(b)(1) dated 1/17/97]* C. [RESERVED] D. Vapors from Tank 581-TC-10 shall be controlled by a closed vent system and control device at all times. *[Reference: 40 CFR 63.119(e) dated 1/17/97]* E. Any storage vessel that has continuously been out of service since before August 18, 1998, shall not be returned to HAP service until it satisfies the applicable MACT requirements in 40 CFR part 63, Subpart CC. *[Reference: 40 CFR Part 63, Subpart CC, Section 63.640(h)(4) dated 6/12/1996]*	Condition 3 - Table 1.ff.1.v. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. For Tank 471-TF-28: Monitor the equivalent turnovers. *[Reference: **APC-81/0120**]* 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. Rolling twelve month VOC emissions from Tank 471-TF-28 calculated quarterly. *[Reference: **APC-81/0120**]* B. Records of the type of petroleum liquid stored, the period of storage and the maximum true vapor pressure of that liquid during the respective storage period. *[Reference: 40 CFR part 60, Subpart Ka, Section 115a]*	Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654(f)(1)(i). *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* vii. Certification: That required by Condition 3(c)(3) of this permit. permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

ff. Emissions Unit 40: Refinery Tank Farm Units With Fixed Roofs Subject to Regulation 1124, Section 31 and 40 CFR Part 63, Subpart CC: Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, 077-TC-78, 078-TC-78, 139-TC-50, 149-TC-50, 150-TC-78, 244-TC-78, 245-TC-78, 246-TC-78, 264-TC-78, 265-TC-78, 266-TC-78, 390-TC-M, 405-TC-28, 406-TC-28, 407-TC-28, 408-TC-28, 441-TC-M, 442-TC-M, 443-TC-M, 444-TC-M, 445-TC-M, 446-TC-M, 447-TC-M, 482-TC-M, 581-TC-10, 060-TF-28, 061-TF-28, 071-TF-28, 202-TF-50, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112. Tanks 047-TF-78, 60-TF-28, 61-TF-28 and 71-TF-28 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4 and 584-TF-4 are not Subject to MACT Requirements; all other Tanks are MACT Tanks. Tanks 571-TC-5 and 572-TC-5 are also subject to 40 CFR Subpart K.

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
1. **Volatile Organic Compounds (VOC).** i. Equipment Standard for Tanks 047-TF-78, 060-TF-28, 061-TF-28, 071-TF-28, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112: The internal floating roof shall be equipped with a closure seal or seals to close the space between the roof edge and tank wall. *[Reference: 7 **DE Admin Code** 1124, Section 31.c.1.i. dated 11/29/94]* ii. Operational Limitations for Tanks 047-TF-78, 060-TF-28, 061-TF-28, 071-TF-28, 202-TF-50, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112: A. The tank is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials. *[Reference: 7 **DE Admin Code** 1124, Section 31.c.2. dated 11/29/94]* B. All openings, except stub drains, are equipped with covers, lids, or seals such that: *[Reference: 7 **DE Admin Code** 1124, Section 31.c.3 dated 11/29/94]* 1. The cover, lid, or seal is in the closed position at all times except when in actual use. 2. Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports. 3. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. C. For Tank 47-TF-78: *[Reference: APC-*	vi. Compliance Method: A. Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following requirements: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* B. Compliance with Tank 047-TF-78's Emission Limitation in section (v) shall be demonstrated by using EPA's Tanks 47.093.1 pProgram or an updated equivalent methodology approved by the Department, using monthly liquid throughput and the monthly average storage temperature~~vapor pressure obtained from monthly samples using ASTM Method D-5191~~. *[Reference: ~~Permit: APC-80/0869(A5) Cond. No. 5~~]* vii. Monitoring/Testing: A. The Owner/Operator shall carry out the following inspections for tanks equipped with a single seal system: 1. Visually inspect the internal floating roof and its closure seal or seals through roof hatches at least once every 12 months. 2. Perform a complete inspection of any cover and single seal whenever the tank is emptied for non-operational reasons or at least every 10 years, whichever is more frequent. B. For tanks equipped with a double seal system: 1. Visually inspect the internal floating roof and its closure seal or seals through the roof hatches at least once every 5 years. 2. Perform a complete inspection of any cover and double seal whenever the tank is	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. If any of the conditions described in 7 **DE Admin Code** 1124, Section 31.3 are detected during the annual inspection, a report shall be furnished to the Administrator within 30 days of the Inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. **[RESERVED]** C. The reports listed below for the MACT Tanks: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report as described in 40 CFR 63.654(f); 2. Periodic Reports as described in 40 CFR 63.654(g); and 3. Other reports as described in 40 CFR 63.654(h). 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654. x. Certification:

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
80/0869] 1. The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled. 2. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical. iii. Operational Limitations: A. For Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, 077-TC-78, 078-TC-78, 139-TC-50, 149-TC-50, 150-TC-78, 244-TC-78, 245-TC-78, 246-TC-78, 264-TC-78, 265-TC-78, 266-TC-78, 390-TC-M, 405-TC-28, 406-TC-28, 407-TC-28, 408-TC-28, 441-TC-M, 442-TC-M, 443-TC-M, 444-TC-M, 445-TC-M, 446-TC-M, 447-TC-M, 482-TC-M, 581-TC-10: The maximum true vapor pressure of the stored petroleum liquid shall not exceed 1.5 psia. However, for Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, and 077-TC-78, if the maximum true vapor pressure of the stored petroleum liquid exceeds 1.0 psia, then the Owner/Operator shall keep records as	emptied for non-operational reasons or at least every 5 years, whichever is more frequent. 3. For Tank 47-TF-78, following the inspections conducted in (2) above, the company shall comply with the requirements of §63.120(a)(7) before refilling the tank with organic HAP. *[Reference: APC-80/0869]* viii. 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 the following records in a readily accessible location for at least 5 years and shall make copies of the records available to the Department upon verbal or written request: 1. Records of the types of volatile petroleum liquids stored in that tank. 2. Records of the maximum true vapor pressure of the liquid as stored. 3. Records of the results of the inspections required in paragraph (d) of this Section. B. For fixed roof tanks exempted from Regulation No. 1124, Section 31, but containing a petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psia), shall maintain the following records in a readily accessible location for at least 5 years and shall make copies of the records available to the Department upon verbal or written request: 1. Records of the average monthly storage	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]*

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Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
described in Section (vi)(B). *[Reference: 7 **DE Admin Code** 1124, Section 31.a.2.iii. dated 11/29/94]* B. For Tank 47-TF-78, the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid stored shall be less than 76.6 kilopascals (11.1 psia) *[Reference: AQM-80/0869]*	temperature. 2. Records of the type of liquid stored. 3. Records of the maximum true vapor pressure for any petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psia). C. For Tank 47-TF-78, the rolling 12 month VOC emissions. *[Reference: APC-80/0869]*	
iv. Operation Limitation for all tanks: Any storage vessel that has continuously been out of service since before August 18, 1998, shall not be returned to HAP service until it satisfies the applicable MACT requirements in 40 CFR part 63, Subpart CC. *[Reference: 40 CFR Part 63, Subpart CC, §63.640(h)(4) dated 6/12/1996]*		
v. Emission Limitation for Tank 047-TF-78: The emissions from Tanks 47-TF-78, 166-TF-112, 205-TF-153, and 261-TF-50 shall not exceed 4.9 tons per 12 month rolling period. *[Reference APC-80/0868 & 0869]*~~Emissions shall not exceed 1.1 tons of volatile organic compounds in any consecutive twelve (12) month period. *[Reference: APC-80/0869 (A5) Cond. 1]*~~		
fg. Emissions Unit 40: Refinery Tank Farm Units Subject to Special Odor Prevention Measures: Tanks 44-TF-112, 45-TC-152, 47-TF-78, 48-TF-112, 50-TF-78, 51-TF-78, 60-TF-28, 61-TF-28, 62-TC-28, 71-TF-28, 72-TF-50, 73-TF-78, 414-TC-M, 416-TF-3, 470-TF-50, 471-TF-28		
1. **Odor Control – State Enforceable Only.** i. Operational Limitations: A. A floating layer of oil at least 1 foot thick must be maintained to control odors from Tanks 470-TF-50 and 471-TF-28. *[Reference: **APC-81/0120** Cond. No. 11]* B. The oil layer shall be replaced if hydrogen	ii. Compliance Method: Compliance with the operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* iii. Monitoring/Testing:	v. Reporting: Comply with 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]* vi. Certification:

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
openings are in actual use; and, 2. Projections into the tank that remain below the liquid surface at all times. F. Automatic bleeder vents must be closed at all times, except when the roof is being floated-off the leg supports. *[Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352, and Permit: APC-81/1008]*		
ac. Emission Unit No. 10: Wastewater Treatment Plant (WWTP) – Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU); Emission Point 10-1		
1. Particulate Matter: i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter from the VCU in excess of 0.3 lb/mm BTU heat input, maximum 2-hour average and 0.74 TPY ~~from the VCU~~. *[Reference: 7 **DE Admin. Code** 1104 No. 4 Section 2.1 dated 2/1/81]*	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on the fuel type and quality. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: None in addition to those listed in Condition 3 Table 1. ac.3.iii. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): the type and fuel usage by the VCU.	v. 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]* vi. 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]*
2. Sulfur ~~dioxide~~ (SO_2): i. Emission Standar: The Owner/Operator shall not cause or allow the emission of sulfur dioxide in	ii. Compliance Method: Compliance with the Operational Limitation shall be based on monitoring and recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2*	v. 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*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
excess of 0.06 TPY. ii. Operational Limitation: In addition to an inerting stream identified as Waste Stream "A" in Drawing No. B-VC-A05733-150, commercial grade, desulfurized propane shall be the only fuel fired in the VCU. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	*dated 12/11/00]* iii. Monitoring/Testing: None in addition to those listed in Condition 3 - Table 1.ac.3.iii. *[Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: Comply with Condition 3 - Table 1.ac.1.iv. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	*and 6.2.1 dated 12/11/00]* vi. 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]*
3. Nitrogen oxides (NO_X): i. Operational Limitation: *[Reference Permit: APC-94/0710]* A. ~~Propane usage by the VCU shall not exceed 260 gallons per hour on a twelve month rolling average basis, which will ensure that NO_x emissions do not exceed 21.6 tons in any twelve consecutive months.~~RESERVED. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j.	iii. Compliance Method: A. Compliance with the operational limitations A and B shall be based on recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j shall be based on published NOx emission factors for such source or category of sources 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: A. The Owner/Operator shall continuously monitor the fuel usage by the VCU. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Comply with "Facility-wide Emission Limit for	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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. The type and rolling twelve month fuel usage by the VCU. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	
4. Volatile Organic Compounds (VOC) i. Emission Standard: VOC emissions shall not exceed 20 ppmv (dry) corrected to 3 percent O_2 and 0.~~28~~ 5 tons in any rolling twelve month period from the VCU. *[Reference:Permit:APC-94/0710 and 40 CFR 61.349(a)(2)(i)(B) dated January 7, 1993]* ii. Operational Limitation: A. The VCU shall not operate below a temperature of 1,300°F except during a 4 hour start up period. Start up is defined as the time when the waste gases are introduced into the VCU. *[Reference:Permit:APC-94/0710]* B. The dissolved nitrogen floatation and flocculation system, oil	iv. Compliance Method: *[Reference: Permit: APC-94/0710 and 40 CFR 61.354(c)(1) dated January 7, 1993]* A. Compliance with the Emission Standard shall be based on Monitoring/Testing. B. Compliance with the Operational Limitation (A) shall be based on compliance with the minimum operating temperature of 1300°F (defined as no more than 50°F below 1300°F in any rolling three hour period of operation). C. Compliance with the Operational Limitation (B) shall be based on Monitoring/Testing. D. Compliance with the Operational Limitation (C) shall be based on Recordkeeping. E. Compliance with the Equipment Standard shall be based on recordkeeping. v. Monitoring/Testing: A. The Owner/Operator shall monitor the	vii. Reporting: *[Reference: 40 CFR 61.357 dated 1/7/93]* In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(li), 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. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF. B. RESERVED viii. 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]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
recovery system and VCU shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). *[Reference: 40CFR 61.351 and 40 CFR 61.352 dated 1/7/93 and APC-94/0710].* C. The VCU shall be operating properly whenever any of the following equipment is in operation except during periods of maintenance on the VCU, or during emergency situations that require the shutdown of the VCU: • Crude Recovery Tank (372-TC-M) • Sludge Holding Tank (349-TM-M) • DNF Tank 326 • DNF Tank 305 • DNF Tank 306 • Slop Oil Tank 10-D-109 • Slop Oil Tank 10-D-202 • Day Tank 356-TC-3 • Day Tank 357-TC-3 • Day Tank 358-TC-3 iii. Equipment Standard: The VCU shall be equipped with a temperature monitoring device	temperature of the firebox continuously. *[Reference: Permit APC-94/0710]* B. The Owner/Operator shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). *[Reference: 40 CFR 61.355 dated 1/7/93]* vi. Recordkeeping: *Reference: Permit: APC-94/0710 and 40 CFR 61.356 dated January 7, 1993]* The Owner/Operator shall maintain the following records in accordance with Condition 3(b) unless a longer period is otherwise specified: A. Dates of start-up and shutdown of the closed vent system and VCU. B. A description of the operating parameter(s) to be monitored to ensure that the VCU will be operated in conformance with all permit conditions and regulatory requirements, and the VCU's design specifications and an explanation of the criteria used for selection of that parameter(s). This documentation shall be retained for the life of the VCU. C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355 (h). D. Maintain continuous records of the temperature of the gas stream in the combustion zone of the VCU and record of all three (3) hour periods of operation during which the average temperature of the gas	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
equipped with a continuous recorder. The temperature monitoring device shall have an accuracy of ± 1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. *[Reference: Permit: APC-94/0710, and 40 CFR 61.354(c)(1) dated January 7, 1993]*	stream in the combustion zone is more than 28°C (50°F) below the combustion zone temperature. E. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. *[Reference: 40 CFR 61.356(f)(1) dated 1/7/93.]*	
5. Visible emissions: i. Emission standard: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference: 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: 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. B. If required under paragraph A above, the Owner/Operator shall, in accordance with 7	v. Reporting Requirement: 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]* vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 & 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 Reg. No. 20, Section 1.5(c) dated 12/7/88].*	
6. Carbon Monoxide (CO): i. Emission Standard: The Owner/Operator shall not cause or allow the emission of carbon monoxide in excess of 8.2 TPY. *[Reference: Permit APC-94/0710]*	ii. Compliance Method Compliance with the Emission Standard shall be based on the type and quality of the fuel. Natural gas fuel usage by the VCU shall be monitored continuously. *[Reference: Permit APC-94/0710]*	
ad. Emission Unit No. 10: Gasoline Dispensing Facility		
1. Volatile Organic Compounds (VOC): i. Emission Standard A. During loading of the aboveground storage tank, the Stage I vapor recovery system for the 4000 gallon aboveground storage tank shall be returned by way of the vapor balance system which returns no less than 90 percent by weight of the	iii. Compliance Method: A. Compliance with Emission standard (A). shall be based on compliance with the Operational Limitation. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with the Operational Limitations shall be based on recordkeeping. *[Reference : 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	vi. Reporting: A. 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]* 1. Report excess emissions to the Department's Underground Storage Tank Branch. 2. Provide written notification to the

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternate plan.	
db. Emission Unit No. 22: Fluid Coke Handling and Storage Facility: Emission Point 22-1		
1. Particulate Matter (PM) i. Emission Standard: A. PM emissions shall not exceed: 1. ~~PM emissions shall not exceed~~ 0.2 grain/dscf from the coker silo baghouse exhaust. *[Reference Reg. No. 5, Section 2.1, dated 2/1/81 and APC-82/1209 (A37)]*. 2. 0.014 grains/scf from BH-1, BH-2, BH-3, BH-4 and BH-5. *[Reference: APC-82/1209(A7)]* 3. 0.067 grains/scf from the Pug Mills Scrubber. *[Reference: APC-82/1209(A7)]* B. ~~Coke conveying, grading, wetting, stackout, dozing, truck/railcar loading and reclaim operations shall not result in particulate~~	iii. Compliance Method: A. Compliance with Emission Standard (A)(1) and Operational Limitations (A) and (B) shall be based on monitoring the pressure drop across the baghouse continuously. Proper operation of the Micro-Pulsaire dust collector shall be based on a pressure drop no greater than 12 inches water column and no observable opacity exceedances of the emission standard in Condition 3, Table 1.db.2.i of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A37)]*. B. Emissions Standard (A)(2) and A(3) shall be based on Monitoring/Testing. C. Compliance with Emission Standard (B) shall be based on stack tests data using the calculations ~~using the same~~ methodology ~~and equations used~~ in the September 17,	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 and quarterly reports of the ~~ambient air quality data obtained from the high volume samplers~~Daily Ambient TSP monitoring. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and Permit:APC-82/1209 (A 7)]* 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*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
~~emissions in excess~~Aggregate emissions from BH1-5, the Pug Mills Scrubber, truck and railcar loading, and from the storage pile in the barn shall not exceed ~~of~~ 27.2~~46~~ TPY of TSP and 20.13~~2~~ TPY of PM_{10} where the term "year" is defined as any twelve consecutive months. *[Reference APC-82/1209 (A~~3~~7)]*. c. The Owner/Operator shall not cause or allow visible particulate emissions of any petroleum coke that is being transported by a motor vehicle within the refinery. *[Reference APC-82/1209 (A7)]*. ~~C.~~D. The Owner/Operator shall not cause or allow the transport of material to or from the barn in such a manner as may cause a condition of air pollution. *[Reference APC-82/1209 (A7)]*. ii. Operational Limitations: *[Reference APC-82/1209 (A 3)~~(A2)~~]*. A. No coke shall be pneumatically conveyed into the coke storage silo, unless the Micro-Pulsaire dust collector is working properly. B. Proper operation and maintenance	2010 permit application. In the future this methodology may be modified, subject to the Department's approval, to reflect further application of control methods. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A~~3~~7)]*. Compliance with Emissions Limitations (C) and (D) shall be based on compliance with Operational Limitations (H) through (K). *[Reference APC-82/1209 (A7)]*. D. ~~A.~~ Compliance with Operational Limitation (C) shall be based on the sampling and monitoring requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A~~3~~7)]* E. ~~B.~~F. Compliance with Operational Limitations (H~~D~~), (E~~I~~), (F~~J~~), (K) and (G~~L~~) shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* ~~C.~~G. Compliance with Operational Limitation (M) and (N) shall be based upon proper operation of the railcar loading dust	

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of a gauge which continuously indicates the pressure drop across the baghouse shall be considered a necessary part of the proper operation of the coker silo baghouse. C. The moisture content of the coke ~~transported~~ being loaded into~~by~~ trucks shall be ~~greater than~~at least 8% at all times and ~~greater than~~at least 10% on an annual average basis. D. ~~Fugitive emissions shall not be emitted in such quantities as to cause or create a condition of air pollution from material handling operations, the stockpiling of materials or vehicular traffic entering or leaving the facility.~~Reserved E. ~~Oil wetting of the coke shall be employed as a dust control measure before it is loaded onto the conveyor system.~~Reserved. F. ~~All conveyors and drop points shall be fully enclosed at all times when coke is being conveyed or dropped.~~Reserved. G. ~~The fluxing agent in the gasifiers shall consist solely of uncontaminated natural soil and~~	collector system. Proper operation of the dust collector system will be based on compliance with the manufacturer's recommended operating procedures and parameters. *[Reference APC-82/1209 (A7)].* iv. Sampling/Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-82/1209 (A 3)&(A7)]* A. Daily samples of coke shall be taken from ~~the storage pile, stackout and reclaim area and from~~ the coke being loaded into trucks and railcars and analyzed for moisture content. After one year of testing demonstrating that the source is meeting the requirements of Operational Limitation (C), the Company may petition to reduce the testing frequency to weekly. B. The Owner/Operator shall conduct daily ambient TSP monitoring in accordance with the "Quality Assurance Project Plan & Standard Operation Procedures for the Ambient Continuous Particulate Air Quality Monitoring Program at the Motive Delaware City Power Plant and Coke and Flux Handling/Storage Facility", dated April 2002. If no exceedance of the secondary Delaware TSP 24-hour AAQS is monitored for any one year period after the issuance of the operating permit, the Company may petition the	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
~~uncontaminated additives such as limestone. Supplemental approval from the Department shall be required before the use of any waste material as a fluxing agent or additive.~~Reserved. H. The Owner/Operator shall pave and maintain as paved all roads and truck movement areas within the facility that are used in transporting or moving petroleum coke. I. The Owner/Operator shall regularly use a street sweeper or other approved method to clean the paved areas where coke accumulates. J. Trucks containing coke must be covered at all times except when being loaded with coke or as soon as practicable thereafter. K. This permit does not authorize importing coke into the refinery and does not authorize the storage of coke in areas outside of the coker silo and the coke barn. L. The differential pressure ranges for the scrubber and BH1-5 shall operate within the manufacturer's established ranges. M. The gravity chute and extendable	Department to approve ceasing monitoring operations.~~shall monitor the entire coke storage and handling area with high volume samplers for the life of the system.~~ C. The Owner/Operator shall conduct stack testing for PM and PM_{10} at the Pug Mills Scrubber and BH1-5 once every five years. A list of baghouses to be tested shall be submitted for the Department's approval. The Company may petition the Department to reduce the number of units retested. v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A37)].* The following records shall be maintained in accordance with Condition 3(b): A. The rolling twelve month emissions of TSP and PM_{10} B. ~~The rolling twelve month average coke production transferred through the coke handling system.~~Reserved. C. ~~The rolling twelve month average amounts of coke transferred to the coke storage area and coke reclaimed.~~Reserved. D. ~~The duration of reclaim operations during each rolling twelve month period.~~Reserved. F. ~~A maintenance record for the Micro-Pulsaire dust collector and associated monitoring equipment detailing all routine and non-~~	

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
load out spout for loading railcars shall extend to the railcar being loaded during railcar loading operations. The loading operation shall not generate any visible emissions at this transfer point. N. Railcar loading operations shall not be conducted unless its dust collector system is operating properly. Proper operation of the dust collector system shall be based on compliance with the manufacturer's recommended operating procedures and parameters.	~~routine maintenance performed, including dates and duration of any outages.~~The date, time, location, and corrective actions taken when the broken bag detection system indicates a potential failure. G. A record of the continuous pressure drop readings across the baghouses and scrubber, when required. ~~expressed in inches of H_2O. It is acceptable to store this data electronically provided it is in a format acceptable to the Department.~~ H. Records of the daily ambient ~~air quality data obtained from the high volume samplers for TSP and PM_{10} for the life of the system~~monitoring required by (iv)(B). I. Daily visible observation records, as required. J. Stack test results and related data, regardless of whether or not the stack test is completed.	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. Visible Emissions i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from the ~~FCU baghouse~~Fluid Coke Handling Facility, 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 months in any 24 hour period. *[Reference 7 **DE Admin. Code** 1114, Section 2.1 dated 7/17/84 and APC-82/1209 (A3) & (A7)]*	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: A. For each baghouse, t~~T~~he Owner/Operator shall operate and monitor a broken bag detection system or conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. For the scrubber, the Owner/Operator shall operate the scrubber within the specified differential pressure range established by the manufacturer's recommendations or by performing daily qualitative stack observations 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. 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	v. Reporting Requirement: 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]* 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 & 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 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00].* iv. Record keeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The Owner/Operator shall maintain the following records in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
e. Emission Unit No. 23: Fluid Catalytic Cracking Unit (FCCU); FCCU Reactor, Catalyst Regenerator, Start up Heaters 23-H-1 A and B, Carbon Monoxide Boiler, 23-H-3, and Wet Gas Scrubber System (WGS) (emission point 23-1);		
1. General Conditions: i. Operational Limitations: *[Reference APC-82/~~0981 (A7)~~0981 (A9)]* A. Except as allowed by operational limitation G, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm).	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with operational limitations A and B shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with operational limitations C, D and E shall be based on information available to the Department concerning the Owner/Operator's actions with respect to	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 [Reference: Regulation 30, Section 6(a)(3)(iii) dated 12/11/00 and APC-82/~~0981 (A7)~~0981 (A9)]* A. Semiannual reports for the preceding six month period shall be submitted to the

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	F. ~~E.~~ If required under paragraphs D 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 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 12/7880]* iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference APC-82/~~0981 (A7)~~0981 (A9)]*	
f. Emission Unit 24: Refinery Gas Plant (No emission points, i.e., This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
ga. Emission Unit No. 25: Reformer and Reformulated Gasoline 2000 Project (RFG 2K Project): Cracked Naphtha Hydrotreater (CNHT) Unit, Butamer Unit and Cooling Tower (Emission points 25-1 and 25-2)		
1. Conditions Applicable to Multiple Pollutants: i. Operational Limitations:	ii. Compliance Method: *[Reference: APC-98/0522]* A. RESERVED B. RESERVED	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. RESERVED B. RESERVED C. The sulfidic caustic stream from the CNHT Unit shall be treated in the spent caustic treater before being discharged to the WWTP. *[Reference: APC-98/0523]* D. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in units 25-H-401 and 25-H-402. E. The hydrogen sulfide (H_2S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a 3 hour rolling average basis.	C. Compliance with Operational Limitations (C) and (D) shall be based on recordkeeping. D. Compliance with Operational Limitation in (E) shall be based on CEMS iii. Monitoring/Testing: *[Reference: APC-98/05222, APC-98/0523 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall monitor the fuel usage of 25-H-401 and 25-H-402 on an hourly basis. B. The Owner/Operator shall monitor fuel HHV on a daily basis. The minimum data capture requirement for the HHV of the fuel shall be no less than 95 percent of the time in any twelve consecutive months, i.e., the Owner/Operator may miss no more than 18 days of sampling and/or analyzing the fuel in any twelve consecutive months. For any missing data the Owner/Operator shall substitute the highest recorded daily HHV for the previous month. *[Reference: APC-98/0522]* C. The Owner/Operator shall monitor H_2S concentration in RFG continuously. The monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance	permit. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	requirements of 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 evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." D. The Owner/Operator shall continuously monitor the cooling water flow rate. iv. Recordkeeping: The Owner/Operator shall maintain the following records in accordance with Condition 3(b): *[Reference: APC-98/0522 and APC-98/0523].* A. Daily fuel HHV B. Record of operating hours of each heater.. C. the type of fuel combusted in 25-H-401 and 25-H-402 and the hourly fuel usage by each heater. D. All 3-hour rolling averages of H_2S content in RFG. E. Data capture of daily fuel HHV; and F. RESERVED	
2. Particulate Matter: i. Emission Standards: A. PM_{10} emissions shall not exceed the following: *[Reference: Permit:APC-98/0522 and 7 **DE Admin. Code** 1104, Section 2.1 dated 2/1/81]* 1. For 25-H-401: ~~3.3~~2.4 TPY on a rolling twelve month basis 2. For 25-H-402: ~~2.5~~1.7 TPY on a	iii. Compliance Method: *[Reference: APC-98/0522]* A. Compliance with Emission Standard (A) shall be based on the fuel gas usage for each ~~heater~~ and the stack test based emission factor obtained from stack testing in accordance with the Monitoring/Testing requirements. The stack test based emission factor and the rolling twelve month fuel	vi. Reporting Requirement: 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*

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
rolling twelve month basis 3. ~~For Units 25-H-401 and 25-H-402: 7.6 lb/mm SCF of fuel gas combusted~~RESERVED B. RESERVED C. Cooling tower PM_{10} emissions shall not exceed 6.6 tons per year on a rolling twelve month basis. *[Reference: APC-98/0523]*	usage shall be used to determine compliance with the annual (rolling 12 months) limits. B. RESERVED C. Compliance with Emission Standard (C) shall be based on the proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulated and on the monitoring requirements. *[Reference: Permit:APC-98/0523]* iv. Monitoring/Testing: *[Reference: APC-98/0522, APC-98/0523 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall conduct a quarterly test of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater; B. ~~RESERVED~~The Owner/Operator shall conduct performance testing at five year intervals for PM_{10} in accordance with Methods 5B/202, or other testing methodology approved by the Department. v. Recordkeeping: The Owner/Operator shall maintain the following records in accordance with Condition 3(b): *[Reference: APC-98/0522, APC-98/0523 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	A. Results of quarterly Method 2540B tests B. RESERVED	
3. Sulfur dioxide (SO_2): i. Emission Standards: *[Reference: APC-98/0522]* A. For 25-H-401: ~~12.6~~8.4 TPY on a rolling twelve month basis. B. For 25-H-402: ~~9.26~~.0 TPY on a rolling twelve month basis.	iii. Compliance Method: *[Reference: Permit:APC-98/0522]* A. Compliance with Emission Standards (A) and (B) shall be based on the rolling twelve month fuel usage and the rolling twelve month average S content of the fuel as determined using H_2S CEMS. iv. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iv.	v. 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]* 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]*
4. Nitrogen Oxides (NO_X): I. Emission Standard: *[Reference: APC-98/0522]* A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. B. for 25-H-401 and 25-H-402: 0.04 lb/mmBtu	iii. Compliance Method: *[Reference: APC-98-0522]* A. Compliance with the Emission Standards shall be based on ~~the fuel gas usage for each heater, the HHV of the fuel obtained from daily samples and the annual stack test based emissions factors~~the Monitoring/Testing requirements. B. ~~For 25-H-401 and 25-H-402, oxygen parametric monitoring may be used as an alternative method. Hourly average NOx emissions shall be calculated consistent with the methodologies of the Premcor submittals to the Department dated November 19, 2007 and April 16, 2008 or by alternate methodologies approved by the~~	v. 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]* 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	~~Department.~~RESERVED 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 Sections 6.1.3.1 dated 12/11/00].* iv. Monitoring/Testing: *[Reference: APC-98-0522]* A. Annual stack emission testing shall be conducted using EPA Reference Method 7 E in Appendix "A" of 40 CFR Part 60 on each heater to determine compliance with the NO_X emission factor of 0.~~029~~04 lb/mmBtu. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00].* v. Recordkeeping: Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Part 1, Condition 3, Table 1.j *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00].*	
5. Carbon Monoxide (CO): i. Emission Standard: *[Reference: Permit:APC-98/0522]* A. For 25-H-401: ~~12.9~~10.9 TPY on a rolling twelve month basis. B. For 25-H-402: ~~9.5~~7.7 TPY on a rolling twelve month basis. C. ~~For 25-H-401 and 25-H-402: CO emissions shall not exceed 35~~	ii. Compliance Method: *[Reference: Permit:APC-98/0522]* Compliance with the emission standards shall be based on the fuel gas usage for each heater and the stack test based emission factor obtained from stack testing in accordance with the Monitoring/Testing requirements. The stack test based emission factor and the rolling twelve month fuel usage shall be used to determine compliance with the annual (rolling 12 months)	v. 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]* vi. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130*

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
~~lb/mmSCF fuel gas combusted.~~RESERVED.	limits. iii. Monitoring/Testing: ~~Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iii.~~The Owner/Operator shall conduct performance testing for CO at five year intervals in accordance with Method 10, or other testing methodology approved by the Department. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iv.	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
6. Volatile Organic Compounds (VOCs): i. Emission Standard: VOC emissions shall not exceed: A. For 25-H-401 and 25-H-402: 2.8lb/mmSCF of fuel gas combusted. *[Reference: APC-98/0522]* B. For the CNHT, Butamer and Alkylation Units fugitive emissions shall not exceed 8.4 tons per year on a rolling quarterly basis. *[Reference: APC-98/0523]* C. For the cooling tower: 5.5 tons per year on a rolling quarterly basis. *[Reference: APC-98/0523]*	ii. Compliance Method: A. Compliance with Emission Standard (A) shall be based on ~~fuel gas usage for each heater~~the Monitoring/Testing requirements. *[Reference: APC-98/0522]* B. Compliance with Emission Standards (B) and (C) shall be based on the monitoring and testing requirements *[Reference: APC-98/0523]* iii. Monitoring/Testing: *[Reference: APC-98/0522 and APC-98/0523, and 7* ***DE Admin. Code*** *1130 Section 6.1.3.1.2 dated 12/11/00]* A. For determining compliance with Emission Standard (B) the Owner/Operator shall use the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November	v. 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]* vi. 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 Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	1995. B. For determining compliance with Emission Standard (C), the VOC concentration in the cooling water shall be obtained quarterly using a method approved by the Department. To determine the cooling water VOC concentration, samples shall be taken at the entrance and exit of the cooling tower and at the point of makeup water addition. The entrance is the point at which cooling water leaves the cooling tower prior to being returned to the process equipment. The exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid. A minimum of three sets of samples shall be taken at the entrance and exit and the point of make up water entry. The average concentrations shall then be calculated for each set of samples. C. For determining compliance with the Emission Standard (A), the owner/operator shall conduct performance testing for VOCs at five year intervals in accordance with Reference Method 25A in Appendix A of 40 CFR 60 and shall determine and report results as total hydrocarbons or shall conduct such other testing	

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	methodology and/or report results as approved by the Department. iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): [*Reference: APC-98/0522 and APC-98/0523, 7* ***DE Admin. Code*** *1130 Section 6.1.3.1.2 dated 12/11/00]* A. Results of quarterly LDAR monitoring showing calculated VOC emissions in tons per year by component type on a rolling quarterly basis B. Results of cooling water VOC monitoring C. RESERVED	
7. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. *[Reference Reg. No. 14, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reg. No. 30 Section 6(a)(3) dated 12/11/00].* iii. Monitoring/Testing: 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.	v. 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]* vi. 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
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~~Only natural gas may be 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).~~RESERVED. C. Only natural gas or desulfurized refinery fuel gas with a hydrogen sulfide content less than 0.1 grain/dscf on a 3-hour rolling average basis may	~~(B) (pertaining to sulfur content of ULSD) shall be based on monitoring /testing requirements.~~ RESERVED 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~~RESERVED. 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]*

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
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.~~ D. **[RESERVED]** E. **[RESERVED]** F. The periods of startups and~~,~~ shutdowns ~~and fuel transfers (syngas to ULSD and ULSD to syngas)~~ of the combustion turbines and/or duct burners shall not exceed 2 hours in duration. G. Comply with "Combined Limits" in Condition 3 - Table 1.f.	each CCU and duct burner~~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 ~~(A7A8)~~]* 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)]*~~RESERVED. 3. **[RESERVED]** 4. **[RESERVED]** 5. **[RESERVED]** 6. ~~The weight percent sulfur content in LSDF. *[Reference **APC-97/0503 (A3)**]*~~Rolling 24-hour heating value of the RFG combusted. 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:	iii. Compliance Method: *[Reference APC-97/0503 ~~(A7A8)~~]* A. Compliance with PM_{10} Emission Standards shall be demonstrated using stack test based emissions factors and	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
1. 0.0~~074426~~ lb/mmBtu heat input when firing ~~syn~~natural gas in CCUs. 2. 0.0~~099431~~ lb/mmBtu when firing ~~syngas~~ natural gas in the CCUs and ~~natural~~ refinery fuel gas in the duct burners. 3. ~~0.0090 lb/mmBtu when firing ULSD in the CCUs.67 TPY.~~ 4. ~~0.0093 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners.~~RESERVED. C. **[RESERVED]** D. TSP emissions shall not exceed the following limits: 1. 0.0~~115076~~ lb/mmBtu heat input when firing ~~syn~~natural gas in CCUs. 2. 0.~~0081~~ 0112 lb/mmBtu when firing ~~syn~~natural gas in the CCUs and ~~natural~~ refinery fuel gas in the duct burners. 3. ~~0.0090 lb/mmBtu when firing ULSD in the CCUs.47.8 TPY.~~ 4. ~~0.0093 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners.~~RESERVED. E. **[RESERVED]** ii. Operational Limitation:	fuel flow rates for the CCUs and duct burners. 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	*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
Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	burners. 4. 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.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]~~**Sulfur Dioxide (SO_2):**		
i. Emissions Standard *[Reference APC-97/0503 (A8)]* A. SO_2 emissions from each CCU shall not exceed 36.5 TPY. ii. Operational Limitation A. Only natural gas may be fired in the combustion chambers of the CCUs. Only natural gas or desulfurized refinery fuel gas with a hydrogen sulfide content	iii. Compliance Method: A. Compliance with the Emissions Standard shall be demonstrated by compliance with Operational Limitation (A). B. Compliance with the Operational Limitation (A) shall be based on monitoring and testing requirements.	vi. Reporting:

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
less than 0.1 grain/dscf on a 3-hour rolling average may be fired in the duct burners.	iv. Monitoring/Testing A. The owner/operator shall install a continuous monitoring device to monitor H_2S concentration in the refinery fuel gas. This instrument shall be installed for be installed for continuously monitoring and recording the concentration (dry basis) of H_2S in refinery fuel gas before it is combusted in any fuel burning device. The instrument shall be located downstream of all process steps which impact the composition of refinery fuel gas prior to its being combusted in any fuel burning device. These instruments shall conform to the QA/QC requirements of Appendix F of 40 CFR 60. v. Record Keeping: A. In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall maintain all 3-hour rolling averages of the H_2S content in RFG as measured by the H_2S analyzer.	
4. Nitrogen Oxides (NO_x):		
i. Emission Standards *[Reference APC-97/0503 {A7A8}]* A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in	iii. Compliance Method: *[Reference APC-97/0503 {A8}]* A. Compliance with the "Facility-wide Emission Limit for Nitrogen Oxides	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

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
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. 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~~RESERVED. 4. ~~39 ppmvd @ 15% O_2 when CCU burns ULSD with duct firing~~RESERVED. D. The NO_X emission rates from the CCUs shall not exceed 390 ppmvd @ 15% O_2 during startups~~,~~ and shutdowns of the combustion turbines and/or duct burners.~~and fuel transfers (syngas to ULSD and ULSD to syngas).~~ E. **[RESERVED]** F. **[RESERVED]** ii. Operational Limitations: *[Reference APC-97/0503 (~~A3~~A8)]* A. ~~NO_x control shall be achieved by injecting nitrogen gas into the combustion chambers of the CCUs when burning syngas and by steam~~	(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. iv. Monitoring/Testing: *[Reference APC-97/0503 (~~A3~~A8)]* 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	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: *[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
~~injection when burning ULSD~~The CCUs shall not be operated unless the LNBs are operating properly. Compliance with the Emissions Limitations shall constitute proper operation. 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.~~RESERVED.	in accordance with Condition 3(b). *[Reference APC-97/0503 ~~(A3A8)~~]* 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]*	
5. Carbon Monoxide (CO):		
i. Emission Standards: *[Reference APC-97/0503 ~~(A7A8)~~]* A. ~~**[RESERVED]**~~CO emissions from each CCU shall not exceed 110.9 TPY. B. CO emissions on an hourly basis shall not exceed the following limits: 1. 0.020~~251~~ lb/mmBtu ~~heat input~~ when firing ~~syngas~~ natural gas in CCUs without duct burners. 2. 0.~~069~~ 0261lb/mmBtu when firing ~~syngas~~ natural gas in the CCUs and ~~natural gas~~RFG in the duct burners. 3. ~~0.048 lb/mmBtu when firing ULSD in the CCUs without duct burners.~~RESERVED	iii. Compliance Method: *[Reference APC-97/0503 ~~(A7A8)~~]* 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 ~~(A3A8)~~]* 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	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]*

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
4. ~~0.067 lb/mmBtu when firing ULSD in the CCUs and natural gas in the duct burners.~~RESERVED C. The above lb/mmBtu limits shall not apply during periods of startup and~~,~~ 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 ~~(A7A8)~~]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	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).	
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~~ 0021 lb/mmBtu ~~heat input~~ when firing ~~syngas~~ natural gas in CCUs without duct burners. 2. 0.~~0048~~ 0046 lb/mmBtu when firing ~~syngas~~ natural gas in the CCUs and ~~natural~~ refinery fuel gas in the duct burners. 3. ~~0.0082 lb/mmBtu when firing~~	iii. Compliance Method: *[Reference APC-97/0503 ~~(A7A8)~~]* 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	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
~~ULSD in the CCUs without duct burners~~19.8 TPY. 4. ~~0.0108 lb/mmBtu when firing ULSD in the CCUs and natural in the duct burners.~~RESERVED. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	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 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]~~Sulfuric Acid (H_2SO_4):		
i. Emission Standard: *[Reference APC-97/0503 (A8)]*	ii. Compliance Method: *[Reference APC-97/0503 (A8)]*	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
H_2SO_4 emissions from each CCU shall not exceed 3.1 TPY.	A. Compliance with the H_2SO_4 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 H_2SO_4 by subtracting the heat input of the duct burners. iii. 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. 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 operation by subtracting the heat input contributed by the duct burners.	
8. ~~[RESERVED]~~Lead (Pb):		

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
i. Emission Standard: *[Reference APC-97/0503 (A8)]* Pb emissions from each CCU shall not exceed 0.004 TPY.	ii. Compliance Method: *[Reference APC-97/0503 (A8)]* Compliance with the Pb Emission Standards shall be based on firing only natural gas in the CCUs and either natural gas or desulfurized refinery fuel gas in the duct burners.	
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~~monitoring and testing requirements. iv. Monitoring/Testing: *[Reference APC-97/0503 (A3)]* A. ~~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 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~~	~~vi.~~i. 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.~~ii. 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]*

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	~~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.~~The owner/operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the units are 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. B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of Regulation No. 20, conduct visual	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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 & 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 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00].* 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~~a log of daily qualitative stack observations for each CCU.	

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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
	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~~A8)]* A. ~~Compliance with Operational Limitation (A) shall be based on the TRS CEMS.~~RESERVED 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~~A8)]* 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~~	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)]*~~RESERVED. 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]*	~~downstream of all process steps which 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)]*~~RESERVED 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)]*~~RESERVED	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~~A8)]* 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.	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
	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. *[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~~A8)]* 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~~ firing only	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.	desulfurized RFG in Boilers 80-1, 80-2, 80-3 , only natural gas in the CCUs and only natural gas or desulfurized RFG in the CCU duct burners. iv. Monitoring/Testing: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 ~~(A7A8)~~]* 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~~RESERVED. 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."~~RESERVED. v. Recordkeeping: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 ~~(A3A8)~~]* A. ~~The Owner/Operator shall maintain SO2 CEMS data, calibration and audit results in accordance with Condition 3(b).~~RESERVED.	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*	iii. Compliance Method: *[Reference APC-90/0288*	vi. Reporting:

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
(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 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.	*(A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (~~A7~~A8)]* Compliance with the CO Emission Standards shall be demonstrated by the following methods: 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~~A8)]* 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	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: 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
	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: 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	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~~A8)]* iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC, in accordance with	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*

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.a.2.	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 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~~A8) 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.	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
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-	iii. Compliance Method: *[Reference APC-90/0288 (A5), APC-90/0289 (A6), APC-90/0290 (A5) and APC-97/0503 (~~A7~~A8)]* 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	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

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 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 Condition 3 - Table 1.a.2.	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-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~~A8) and APC-2009/0089 (A1)]* B. 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 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.a.2.iii. viii. Recordkeeping: Comply with "Conditions Applicable to 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~~A8)]* 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:	iii. Compliance Methodology: *[Reference APC-*	vi. Reporting:

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 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 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	*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 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	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 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
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 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.	firing of each CCU. C. Annual power output to the grid for the facility. v. Recordkeeping: 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
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 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	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

ATTACHMENT 2

Regulation 1102 Operating Permits

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

RECEIVED
OCT 26 2012
BY: HLS/laf

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

October 22, 2012

Permit: APC-94/0710-CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)(NOx RACT)
Waste Water Treatment Plant Vapor Combustion Unit Fuel Switch Project

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102 Section 2, approval of the Department of Natural Resources and Environmental Control (Department) is hereby granted for the modification of the Waste Water Treatment Plant's (WWTP's) John Zink Vapor Combustion Unit (VCU) rated at 22.7 mmBtu/hour whereby the fuel fired by this unit will be changed from propane to natural gas, at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware in accordance with the following documents:

- Application submitted on Form No. AQM–1, AQM-2, AQM-3.1 and AQM-5 dated August 29, 2012 signed by Herman Seedorf.

This permit is issued subject to the following conditions:

1. General Provisions

1.1. The WWTP VCU Fuel Switch Project shall be constructed in accordance with the application and this permit. If any changes are necessary, revised plans must be submitted and supplemental approval issued prior to actual construction. Construction authorization expires 3 years after issuance of this permit.

1.2. Representatives of the Department may, at any reasonable time, inspect this facility.

1.3. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.2.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.2.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.5. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1. Air contaminant emission levels from the VCU shall not exceed those specified in the Regulations at 7 **DE Admin. Code** 1100, et. seq. and the following[1]:

2.1.1. Volatile Organic Compound (VOC) Emissions

2.1.1.1 0.5 TPY.

2.1.1.2 20 ppmv (dry) corrected to 3 percent O2.

2.1.2. Nitrogen Oxides (NOx) Emissions

NOx emissions shall not exceed those prescribed in Condition 3, Table 1ac.3.i.B of **Permit: AQM-003/00016 – Part 2 (Revision 5)** dated April 5, 2011.

2.1.3. Particulate Matter (PM_{10}/$PM_{2.5}$) Emissions

0.74 TPY.

2.1.4. Sulfur Dioxide (SO_2) Emissions

0.06 TPY.

2.1.5. Carbon Monoxide (CO) Emissions

8.2 TPY.

2.2. The Company shall not cause or allow the emission of visible air contaminants and/or smoke from the VCU, 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 a 24 hour period.

[1] Tons per year (TPY) is defined as "tons per rolling twelve months" unless otherwise specified.

2.3. Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations

3.1 In addition to an inerting stream identified as Waste Stream "A" in Drawing No. B-VC-A05733-150, pipeline grade natural gas shall be the only fuel fired in the VCU.

3.2 The VCU shall not operate below a temperature of 1,300°F except during a 4 hour start up period. Start up is defined as the time when the waste gases are introduced into the VCU.

3.3 The dissolved nitrogen floatation and flocculation system, oil recovery system and VCU shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in 40 CFR 61, Section 61.355(h).

3.4 The VCU shall be operating properly whenever any of the following equipment is in operation except during periods of maintenance on the VCU, or during emergency situations that require the shutdown of the VCU:

- Crude Recovery Tank (372-TC-M)
- Sludge Holding Tank (349-TM-M)
- DNF Tank 326
- DNF Tank 305
- DNF Tank 306
- Slop Oil Tank 10-D-109
- Slop Oil Tank 10-D-202
- Day Tank 356-TC-3
- Day Tank 357-TC-3
- Day Tank 358-TC-3

3.5 The VCU shall be equipped with a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have an accuracy of +/- 1 percent of the temperature being monitored in °C or +0.5 °C, whichever is greater

3.6 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 of all equipment and processes and

all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1. Compliance with Conditions 2.1.1.1, 2.1.3, 2.1.4 and 2.1.5 shall be based on the type and quality of the fuel. Natural gas fuel usage by the VCU shall be monitored continuously.

4.2 Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j of **Permit: AQM-003/00016 – Part 1 (Ren. 1)(Rev. 5)** dated 04.05.2011 shall be based on published NOx emission factors for such source or category of sources or any other method proposed by the Owner/Operator and approved by the Department.

4.3 Compliance with Condition 2.2 shall be based on the monitoring/testing requirements in Part 2, Condition 3, Table 1.ac.5 of Permit: AQM-003/00016 – Part 2 (Rev 5) dated 04.05.2011.

4.4 Compliance with Condition 3.1 shall be based on the monitoring and recordkeeping requirements in Part 2, Condition 3, Table 1.ac.2 of **Permit: AQM-003/00016 – Part 2 (Rev. 5)** dated 04.05.2011.

4.5 Compliance with Conditions 3.2 through 3.5 shall be based on compliance with the requirements in monitoring/testing and recordkeeping requirements in Part 2, Condition 3, Table 1.ac.4 of **Permit: AQM-003/00016 – Part 2 (Rev. 5)** dated 04.05.2011.

4.6 Compliance with Conditions 2.3 and 3.6 shall be based on information available to the Department concerning the Owner or operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. Record Keeping Requirements

5.1. The owner or operator shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written verbal request.

5.2. The owner or operator shall maintain the following records:

5.2.1. Dates of start-up and shutdown of the closed vent system and VCU.

5.2.2. A description of the operating parameter(s) to be monitored to ensure that the VCU will be operated in conformance with all permit conditions and regulatory requirements, and the VCU's design specifications and an explanation of the criteria used for selection of that parameter(s). This documentation shall be retained for the life of the VCU.

5.2.3. A record for each test of no detectable emissions in accordance with 40 CFR 61.355 (h).

5.2.4. Maintain continuous records of the temperature of the gas stream in the combustion zone of the VCU and record of all three (3) hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28°C (50°F) below the combustion zone temperature.

5.2.5. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur.

5.2.6. Rolling 12-month fuel usage by the VCU.

5.2.7. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month.

5.2.8. A record of daily qualitative emission observations and Method 9 evaluations when emissions were observed.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report.

6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 One (1) original and 1 copy of all required reports shall be sent to the address below:
Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE

7. Administrative Conditions

7.1. This permit shall be made available on the premises.

7.2 This permit supersedes **Permit: APC-94/0710-OPERATION (NESHAP)(NOx RACT)** dated April 14, 1998 upon completion of the construction authorized by this permit.

7.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:CRR:slb
F:\EngAndCompliance\CRR\crr12047.doc

pc: Dover Title V File

RECEIVED
JUN 18 2012
BY: HLS/laf

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

June 14, 2012

Permit: APC-82/1209-OPERATION (Amendment 7)
Petroleum Coke Storage and Handling Complex

Delaware City Refining Company
4550 Wrangle Hill Road
Delaware City, Delaware 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102, Section 2, approval of the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the operation of a modified coke storage and handling complex comprised of the following components: a new railcar loading gravity-feed chute with an extendable load out spout and 4,000 ACFM Donaldson Torit Model DLMC 2/2/15 dust collector; installation of 2,000 ACFM Donaldson Torit Model DLMC 30/15 dust collectors at each of the existing 4 conveyor transfer points; construction of a 125 feet by 400 feet pre-engineered steel building (coke barn) with new concrete footings/foundation and concrete floor; relocation of the 2 existing pug mills within the new coke barn and equipping them with 2 new portable conveyors with an extendable radial stacker; and relocating the existing Bionomic Industries series 5700 Model 60 Rotabed Fluidized Bed Scrubber (the pug mills' scrubber) in addition to the existing 7000 ton capacity coke storage silo and its Micropulsaire baghouse at the Delaware City Refinery in Delaware City, Delaware, in accordance with the following documents:

- Application package submitted by the Company dated September 17, 2010, with Form Nos. AQM-1, AQM-2, AQM-4.4, AQM-4.6 for each baghouse, and AQM-4.5 signed by James Fedena.
- Secretary's Order No. 2010-A-0041, dated December 16, 2010

This permit is issued subject to the following conditions:

1. General Provisions

1.1 This permit expires five years from the date of issuance.

1.2. Representatives of the Department may, at any reasonable time, inspect this facility.

1.3. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 DE Admin. Code 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.5. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 DE Admin. Code 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1 Air contaminant emission levels from the coke storage and handling system inclusive of the baghouses, storage silo, truck loading operation, and gas scrubber shall not exceed the following and those specified by 7 **DE Admin. Code 1100**, *et. seq.* and the following:

2.1.1 The particulate matter (PM) emissions from the scrubbers and baghouses shall not exceed the following limits:

Emission Point	Control Number	PM Outlet Grain Loading (grains/scf)[1]
PS-01A	Conveyor A, BH-1	0.014
PS-02A	Conveyor B, BH-2	0.014
PS-03A	Conveyor C, BH-3	0.014
PS-04A	Conveyor D, BH-4	0.014
PS-05	Railcar loading, BH-5	0.014
PS-06	Pug Mills, Scrubber	0.067

2.1.2 Aggregate emissions from the emission points identified in Condition 2.1.1, truck and railcar loading, and from the storage pile in the barn 27.2 tons per year of PM and 20.1 tons per year of PM_{10}. "Tons per year" shall mean total emissions on a rolling 12-month basis.

[1] The Outlet Grain Loading emission rate shall be the arithmetic mean of the results of the three test runs as required by the stack testing requirement in Condition 4.2

2.2 The Company shall not cause or allow the emission of visible air contaminants and/or smoke from a stationary source, the shade or appearance of which is greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period.

2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

2.4 The Company shall not cause or allow visible particulate emissions of any petroleum coke that is being transported by a motor vehicle within the refinery.

2.5 The Company shall not cause or allow the transport of material to or from the barn in such a manner as may cause a condition of air pollution.

3. Operational Limitations

3.1

3.1.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.1.2 All structural and mechanical components shall be maintained in proper operating condition.

3.2 The coke moisture content of the coke being loaded into trucks shall be at least 8% at all times and at least 10% on an annual average basis.

3.3 The Company shall pave and maintain as paved all roads and truck movement areas within the facility that are used in transporting or moving petroleum coke.

3.4 The Company shall regularly use a street sweeper or other approved method to clean the paved areas where coke accumulates.

3.5 Trucks containing coke must be covered at all times except when being loaded with coke or as soon as practicable thereafter.

3.6 This permit does not authorize importing coke into the refinery and does not authorize the storage of coke in areas outside of the coker silo and the coke barn.

3.7 The differential pressure ranges for the scrubber and baghouses shall operate within the manufacturer's established ranges.

3.8 The gravity chute and extendable load out spout for loading railcars shall extend to the railcar being loaded during railcar loading operations. The loading operation shall not generate any visible emissions at this transfer point.

3.9 Railcar loading operations shall not be conducted unless its dust collector system is operating properly. Proper operation of the dust collector system shall be based on compliance with the manufacturer's recommended operating procedures and parameters.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1 Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

4.1.1 One (1) original and 2 copies of the test protocol shall be submitted including a "Source Sampling Guidelines and Preliminary Survey Form a minimum of 30 days in advance of the tentative test date to the addressees in Condition 4.1.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

4.1.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

4.1.3 The final results of the testing shall be submitted to the Department within 60 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and 1 Copy to:	One Copy to:
Engineering & Compliance Branch	Engineering & Compliance Branch
Attn: Assigned Engineer	Attn: Surveillance Engineer
Blue Hen Corporate Center	715 Grantham Lane
655 S. Bay Rd, Suite 5 N	New Castle, DE 19720
Dover, DE 19901	

4.1.4 To be considered valid, the test report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety, and Environment Department.

4.2 Initial stack tests for PM and PM_{10} shall be conducted at the scrubber and baghouses in accordance with the appropriate testing methods and at 5 year intervals thereafter. A list of baghouses to be tested shall be submitted for the Department's approval. After the initial tests, the Company may petition the Department to reduce the number of units retested.

4.3 Visible Emission Standards:

4.3.1 For each baghouse, compliance with the visible emission standard in Condition No. 2.2 shall be demonstrated by operating and monitoring a broken bag detection

system or by performing daily qualitative stack observations according to Condition 4.3.3.

4.3.2 For the scrubber, compliance with the visible emission standard in Condition No. 2.2 shall be demonstrated by operating the scrubber within the specified differential pressure range established in accordance with Condition 3.9, or by performing daily qualitative stack observations according to Condition 4.3.3.

4.3.3 When required by sections 4.3.1 and 4.3.2, the Company shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.

4.3.3.1 If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with section 4.3.4.

4.3.3.2 If no visible emissions are observed, no further action is required.

4.3.4 If required under 4.3.3, the Owner Operator shall, in accordance with Subsection1.5(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 recorded. The additional procedures, qualification, and testing to be used for visually determining opacity shall be those specified in Sections 2 & 3 (except 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.

4.4 Compliance with 2.1.2 shall be based upon stack tests data conducted pursuant to Condition 4.2 using the calculation methodology in its September 17, 2010 permit application.

4.5 Compliance with Condition 3.2 shall be based on collecting a sample of coke each day that petroleum coke is loaded into trucks and analyzing the sample to determine the moisture content. After one year of testing demonstrating that the source is meeting the requirements of Condition 3.2, the Company may petition the Department to reduce the testing frequency to weekly.

4.6 Compliance with Condition No. 3.1 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

4.7 The Company shall conduct daily ambient TSP monitoring in accordance with the "Quality Assurance Project Plan & Standard Operation Procedures for the Ambient Continuous Particulate Air Quality Monitoring Program at the Motiva Delaware City Power Plant and Coke and Flux Handling/Storage Facility", dated April 2002. If no exceedance of the secondary Delaware TSP 24-hour AAQS is monitored for any one year period after the issuance of the operating permit, the Company may petition the Department to approve ceasing monitoring operations.

4.8 Compliance with Permit Condition 3.9 shall be based on continuously monitoring the differential pressure across the scrubber and the bag house.

4.9 Compliance with Permit Condition 2.3 shall be based upon monitoring/testing, including but not limited to scentometer tests, air quality monitoring, and affidavits from affected citizens and investigators.

4.10 Compliance with Permit Conditions 2.4 and 2.5 shall be based upon compliance with Operational Limitations 3.3 through 3.6.

4.11 Compliance with Conditions 3.8 and 3.9 shall be based upon proper operation of the railcar loading dust collector system. Proper operation of the dust collector system will be based on compliance with the manufacturer's recommended operating procedures and parameters.

5. Record Keeping Requirements

5.1 The owner or operator shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request.

5.2 The following information shall be recorded:

5.2.1 Daily visible emissions observations, as required in Condition 4.3;
5.2.2 Continuous scrubber and baghouse differential pressures when required;
5.2.3 Stack test results and related data, regardless of whether or not the stack test is completed; and
5.2.4 The date, time, location, and corrective actions taken when the broken bag detection system indicates a potential failure.
5.2.5 The rolling 12 month total PM and PM_{10} emissions shall be calculated and recorded each month.
5.2.6 Records of daily ambient TSP monitoring required by Condition 4.7.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report.
6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 Quarterly reports of Daily Ambient TSP monitoring required by Condition 4.7.

6.4 One (1) original and 1 copy of all required reports shall be sent to the address below:

Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

7. Administrative Conditions

7.1 This permit shall be made available on the premises.

7.2 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

7.3 This permit authorizes the operation of equipment authorized to be constructed by **Permit: APC-82/1209-CONSTRUCTION (Amendment 7)** dated 12.20.10 and supersedes **Permit: APC-82/1209-CONSTRUCTION (6)** issued on December 23, 2008.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File
Dawn Minor
Mark Lutrzykowski, P.E.

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BY: HLS/laf

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

August 15, 2012

Permit: APC-98/0522-OPERATION (Amendment 1)(NSPS)
Cracked Naphtha Hydrotreater Heater 25-H-401
Cracked Naphtha Hydrotreater Reboiler Heater 25-H-402

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102 Section 2, approval of the Department of Natural Resources and Environmental Control (Department) is hereby granted for the operation of the rerated Cracked Naphtha Hydrotreater (CNHT) Feed Heater (25-H-401) and the CNHT Reboiler Heater (25-H-402) as part of the modifications to the Tier II Part 2 Project located at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware, in accordance with the following documents:

- Application submitted on Form No. AQM-1, AQM-2, AQM-3.1 and AQM-5 dated August 22, 2008 signed by John Pickering; and
- Electronic mail from Thomas S. Godlewski, Jr. to Ravi Rangan sent at 11:48 AM on November 20, 2008.

This permit is issued subject to the following conditions:

1. **General Provisions**

1.1. Representatives of the Department may, at any reasonable time, inspect this facility.

1.2. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.2.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.2.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.3. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.4. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1. Air contaminant emission levels shall not exceed those specified in the Regulations at 7 **DE Admin. Code** 1100, et. seq. and the following[1]:

2.1.1. Volatile Organic Compound (VOC) Emissions

VOC emissions shall not exceed 2.8 lb/mmSCF of fuel combusted.

2.1.2. Nitrogen Oxides (NOx) Emissions

2.1.2.1 From units 25-H-401 & 25-H-402: NOx emissions shall not exceed those prescribed in Condition 3, Table 1ga.4.i.A of **Permit: AQM-003/00016 – Part 2 (Revision 5)** dated April 5, 2011; and

2.1.2.2 From units 25-H-401 & 25-H-402: 0.04 lb/mmBtu.

2.1.3. Particulate Matter (PM_{10}) Emissions

2.1.3.1. From unit 25-H-401: 2.4 TPY;
2.1.2.2 From unit 25-H-402: 1.7 TPY.

2.1.4. Sulfur Dioxide (SO_2) Emissions

2.1.4.1 From unit 25-H-401: 8.4 TPY;
2.1.4.2 From unit 25-H-402: 6.0 TPY.

2.1.5. Carbon Monoxide (CO) Emissions

2.1.5.1 From unit 25-H-401: 10.9 TPY;
2.1.5.2 From unit 25-H-402: 7.7 TPY

[1] Tons per year (TPY) is defined as "tons per rolling twelve months" unless otherwise specified.

2.2. The Company shall not cause or allow the emission of visible air contaminants and/or smoke from 25-H-401 and 25-H-402, 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 a 24 hour period.

2.3. Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations

3.1 Units 25-H-401 and 25-H-402 shall combust only desulfurized refinery fuel gas (RFG) or natural gas. The desulfurized RFG shall not contain hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm) on a rolling 3 hour average basis

3.2 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 of all equipment and processes and all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1. Compliance with Conditions 2.1.1, 2.1.3 and 2.1.5 shall be demonstrated from the fuel gas usage obtained by monitoring the fuel gas usage continuously for each heater and the stack test based emission factor obtained from stack testing in accordance with Section 4.4 of this permit. The stack test based emissions factors and the rolling twelve month fuel usage shall be used to determine compliance with the annual (rolling 12 months) limits. The Owner or operator shall ensure adequate test ports are provided in accordance with Regulation No. 17, section 2.3.

4.2 Compliance with Condition 2.1.2 shall be based on an annual stack test conducted using EPA Reference Method 7 E in Appendix "A" of 40 CFR Part 60 on each heater.

4.3 Compliance with Condition 2.1.4 shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content in the refinery fuel gas.

4.4 The owner or operator shall conduct performance tests at five year intervals for the pollutants listed in Conditions 2.1.1 (VOC), 2.1.3 (PM_{10}) and 2.1.5 (CO).

4.4.1 The owner or operator shall conduct performance testing for VOCs in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60 and shall determine and report results as total hydrocarbons or shall conduct such other testing methodology and/or report results as approved by the Department.

4.4.2 The owner or operator shall conduct performance testing for PM_{10} in accordance with Methods 5B/202, or other testing methodology approved by the Department.

4.4.3 The owner or operator shall conduct performance testing for CO in accordance with Method 10, or other testing methodology approved by the Department.

4.5 Within 90 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or

operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

4.5.1 One original and 2 copies of the test protocol shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 6.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

4.5.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

4.5.3 The final results of the testing shall be submitted to the Department within 60 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:	One Copy to:
Engineering & Compliance Branch	Engineering & Compliance Branch
Attn: Assigned Engineer	Attn: Surveillance Engineer
655 S. Bay Rd, Suite 5 N,	715 Grantham Lane
Dover, DE 19901	New Castle, DE 19720

4.5.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment department.

4.5.4 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

4.6 Compliance with Condition 2.2 shall be based upon conducting daily qualitative visible emissions evaluations. If any opacity is observed, the Owner or operator shall conduct a visible emissions evaluation using RM 9 of 40 CFR part 60, Appendix "A."

4.7 Compliance with Condition 3.1 shall be based upon Premcor's fuel gas monitoring requirement using quality assured hydrogen sulfide (H_2S) Continuous Monitoring System.

4.9 Compliance with Condition 3.2 shall be based on information available to the Department concerning the Owner or operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. Record Keeping Requirements

5.1. The owner or operator shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written verbal request.

5.2. The owner or operator shall maintain the following records:

5.2.1. Hourly fuel gas flow to each heater

5.2.2. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month.

5.2.3. A record of daily qualitative emission observations and Method 9 evaluations when emissions were observed.

5.2.4. All exceedances of the H_2S in RFG as measured by the H_2S CEMS.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions;
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions;

6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report; and

6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 One original of all required reports in hard copy format shall be sent to the address below:

Air Quality Management Section
Division of Air and Waste Management
655 S. Bay Rd, Suite 5 N,
Dover, DE 19901

One copy of all required reports in hard copy format shall be sent to the address below:

Program Manager
Engineering & Compliance Branch
715 Grantham Lane
New Castle, DE 19720

7. Administrative Conditions

7.1. This permit shall be made available on the premises.

7.2 This This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-98/0522-CONSTRUCTION (Amendment 1)(NSPS)** dated December 16, 2008 and supersedes **Permit: APC-98/0522-OPERATION (RACT)(NSPS)** dated June 18, 2002.

7.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

RECEIVED
AUG 17 2012
BY: HLS/laf

August 15, 2012

Permit: APC-98/0523-OPERATION (Amendment 1)(NSPS)
Cracked Naphtha Hydrotreater Unit

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102 Section 2, approval of the Department of Natural Resources and Environmental Control (Department) is hereby granted for the operation of the Cracked Naphtha Hydrotreater (CNHT) unit to produce gasoline that meets the Tier 2 specifications at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware in accordance with the following documents:

- Application submitted on Form No. AQM–1, AQM-2, AQM-3.1 and AQM-5 dated August 22, 2008 signed by John Pickering;

This permit is issued subject to the following conditions:

1. General Provisions

1.1. Representatives of the Department may, at any reasonable time, inspect this facility.

1.2. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.2.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.2.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.3. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.4. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1. Air contaminant emission levels shall not exceed those specified in the Regulations at 7 **DE Admin. Code** 1100, et. seq. and the following:

2.1.1 Volatile Organic Compound (VOC) Emissions

2.1.1.1 Fugitive VOC emissions from the new equipment at the CNHT, SHU and DGA and the new ancillary equipments and tie-ins shall not exceed 10.4 tons per year on a rolling quarterly basis.

2.1.1.2 Fugitive VOC emissions from the cooling tower shall not exceed 5.5 tons per year on a rolling quarterly basis.

2.1.1.3 Fugitive VOC emissions from the new equipment shall utilize an internal leak definition of 2,000 ppm for all pumps and 500 ppm for all valves, excluding pressure relief devices.

2.1.1.4 With the exception of leak definitions for pumps and valves specified above, the leak detection and repair requirements to control fugitive VOC emissions shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 63, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the CNHT Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

2.1.2 Particulate Matter with an Aerodynamic Diameter Less Than or Equal to 10 μm (PM_{10}):

PM_{10} emissions from the cooling tower shall not exceed 6.6 tons per year on a rolling 12 month basis.

2.2. Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations

3.1. The Company shall comply with the following operational limits:

3.1.1 There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.1.2 The Company shall provide for the following during process unit turnarounds:

3.1.2.1 Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

3.1.2.2 No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.2.

3.2.1. At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.2.2. All structural and mechanical components shall be maintained in proper operating condition.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1. Compliance with Condition 2.1.1.1 shall be demonstrated by using the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995.

4.2. Compliance with Condition 2.1.1.2 shall be demonstrated by monitoring the cooling water flow rate and the concentration of the total VOC. The cooling water flow rate shall be monitored continuously and the VOC concentration in the cooling water shall be obtained quarterly using a method approved by the Department. To determine the cooling water VOC concentration, samples shall be taken at the entrance and exit of the cooling tower and at the point of make-up water addition. The entrance is the point at which cooling water leaves the cooling tower prior to being returned to the process equipment. The exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process equipment. A minimum of 3 sets of samples shall be taken at the entrance and exit and the point of make-up water entry. The average concentration shall then be calculated for each set of samples.

4.3. Compliance with Condition 2.1.1.3 shall be based on monitoring of pumps and valves performed in accordance with 40 CFR 60, Subpart GGG for existing components and 40 CFR 63, Subpart CC for new components in light liquid and gaseous service. Monitoring shall be performed using a method approved by the Department.

4.4. Compliance with Condition 2.1.1.4 for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.648. Compliance with the

standards in 40 CFR 60, Subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592.

4.5. Compliance with Condition 2.1.2 shall be based on proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 % drift loss per pound of cooling water circulated and demonstrated by conducting a quarterly test of total solids using method 2504B of Standard Methods for the Examination of Water and Wastewater and by continuously monitoring the cooling water flow rate.

4.6. Compliance with Condition 3.1.1 and 3.1.2 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less.

4.7. Compliance with Conditions 2.2 and 3.2 shall be based on information available to the Department which may include, but is not limited to, monitoring results, process operating data, review of operating and maintenance procedures, and inspection of the source.

5. Record Keeping Requirements

5.1. The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request.

5.2. The following information shall be recorded and maintained:

5.2.1. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service; and

5.2.2. Date of process unit or vessel turnarounds and the internal pressure of the process unit or vessel immediately prior to venting to the atmosphere.

5.2.3. Results of cooling water flow rate and VOC concentration required by Conditions 4.2 and 4.5.

5.2.4. Quarterly test results of total solids as required by Condition 4.5.

6. Reporting Requirements

6.1. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and

Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;

6.2.2 The subject source(s) that caused the excess emissions;

6.2.3 The time and date of the first observation of the excess emissions;

6.2.4 The cause and expected duration of the excess emissions;

6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions;

6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions;

6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report; and

6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 One original of all required reports in hard copy format shall be sent to the address below:

Ai Air Quality Management Section
Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

One copy of all required reports in hard copy format shall be sent to the address below:

Compliance Engineer
Engineering & Compliance Branch
715 Grantham Lane
New Castle, DE 19720

7. Administrative Conditions

7.1. This permit shall be made available on the premises.

7.2. This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-98/0523-CONSTRUCTION (Amendment 1)(NSPS)** dated December 16, 2008 and supersedes **Permit: APC-98/0523-OPERATION (NSPS)(RACT)(NESHAP)** dated March 11, 2002.

7.3. Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

June 22, 2012

Permit: APC-80/0868-OPERATION (Amendment 3)(MACT)(VOC RACT)(NSPS)
Permit: APC-80/0869-OPERATION (Amendment 6)(MACT)(VOC RACT)(NSPS)

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Road
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code 1102**, Section 2, approval of the Department of Natural Resources and Environmental Control (Department) is hereby granted for the operation of Tanks 47, 166, 205, and 261 and associated piping modifications located at the Delaware City Refinery in Delaware City, Delaware, in accordance with the application submitted on Form Nos. AQM-1, AQM-2, and AQM-3.5 dated April 28, 2008 signed by Andrew Kenner, Vice President and General Manager, with a cover letter dated April 29, 2008 signed by Thomas Godlewski, Jr., Senior Environmental Engineer.

This permit is issued subject to the following conditions:

1. General Provisions

1.1. Representatives of the Department may, at any reasonable time, inspect this facility.

1.2. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.2.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.2.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.3. The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 DE Admin. Code 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.4. The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 DE Admin. Code 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1 Air contaminant emission levels shall not exceed those specified in 7 **DE Admin. Code 1100**, *et. seq.* and the following:

2.1.1 Volatile Organic Compound (VOC) Emissions
VOC emissions from Tanks 47, 166, 205 and 261 shall not exceed 4.9 tons per 12 month rolling period.

2.2 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations and Equipment Standards

3.1 **Tanks 166, 205, 261:** The Company shall comply with the following operational limits and equipment standards:

3.1.1 The maximum true vapor pressure of the total organic hazardous air pollutants in the liquid stored in the tank shall be less than 76.6 kilopascals (11.1 psia).

3.1.2 All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves shall be equipped with:

3.1.2.1 Covers, seals, or lids in the closed position except when the openings are in actual use.
3.1.2.2 Projections into the tank that remain below the liquid surface at all times.

3.1.3 Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

3.1.4 Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

3.1.5 When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

3.1.6 The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the initial fill, after the vessel has been completely emptied and degassed, when the vessel is completely emptied before being subsequently refilled

3.1.7 Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge consisting of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.

3.1.8 Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except during the inspections required by Condition 4.1.

3.1.9 The primary seal shall be a metallic shoe seal with no holes, tears, or other openings in the shoe, seal fabric, or seal envelope. One end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters above the stored liquid surface.

3.1.10 The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in 3.1.12. There shall be no holes, tears, or other openings in the seal or seal fabric.

3.1.11 The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 3.81 centimeters.

3.1.12 The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by §63.120(b)(1)(i).

3.1.13 Emergency roof drains shall have slotted membrane fabric covers or equivalent covers that cover at least 90% of the area of the opening.

3.2 **Tank 47:** The Company shall comply with the following operational limits:

3.2.1 The maximum true vapor pressure of the total organic hazardous air pollutants in the liquid stored in the tank shall be less than 76.6 kilopascals (11.1 psia).

3.2.2 The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled.

3.2.3 When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

3.2.4 The internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge

of the internal floating roof. The lower seal may be vapor- mounted, but both must be continuous seals.

3.2.5 All openings, except stub drains, are equipped with covers, lids, or seals such that:

3.2.5.1 Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

3.2.5.2 The cover, lid, or seal is in the closed position at all times except when in actual use.

3.2.5.3 Rim vents, if provided, are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting.

3.3

3.3.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.3.2 All structural and mechanical components of the equipment or process covered by this Permit shall be maintained in proper operating condition.

4. Inspection and Compliance Requirements

4.1 **Tanks 166, 205, 261:** Compliance with Condition 3.1 shall be demonstrated by:

4.1.1 The company shall determine the gap areas and the maximum gap widths between the primary seal and the tank wall according at least once every 5 years. The Company shall measure the gaps between the tank wall and the secondary seals at least once per year.

4.1.2 Except as provided in §63.120(b)(7), the company shall determine gap widths and gap areas in the primary and secondary seals individually in accordance with §63.120(b)(2)-(4) .

4.1.3 The company shall repair conditions that do not meet the requirements of Conditions 3.1.9 through 3.1.12 no later than 45 calendar days after identification, or shall empty and remove the tank from service no later than 45 calendar days after identification.

4.1.4 If seal gaps or other failures cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the company may utilize up to 2 extensions of up to 30 additional days each in accordance with the procedures of §63.120(b)(8).

4.1.5 The company shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings semiannually and each time the tank is emptied and degassed. If the external floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; the company shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with organic HAP.

4.2 **Tank 47:** Compliance with Condition 3.2.4 shall be demonstrated by:

4.2.1 The Company shall visually inspect the internal floating roof and its closure seal or seals through roof hatches on the fixed roof at least once every 5 years.

4.2.2 The Company shall perform a complete inspection of the cover and double seals whenever the tank is emptied for nonoperational reasons or at least every 5 years.

4.2.3 Following the inspections conducted in accordance with Condition 4.2.2, the company shall comply with the requirements of §63.120(a)(7) before refilling the tank with organic HAP.

4.3 Compliance with the VOC emission limitation shall be demonstrated by using EPA's TANKS 4.09 program or an updated equivalent methodology using monthly liquid throughput and the monthly average storage temperature.

4.4 The requirements of **Permit: AQM-003/00016 – Part 2** Condition 3 – Table 1.oa shall apply to the new fugitive VOC sources associated with this project.

5. Record Keeping Requirements

5.1 The owner or operator shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request.

5.2 The company shall keep readily accessible records showing the dimensions of the tanks and an analysis showing the capacity. This record shall be kept as long as the vessel retains Group 1 or Group 2 status and is in operation.

5.3 The company shall keep records describing the results of each seal gap measurement of Tanks 166, 205, 261. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations.

5.4 The rolling 12 month VOC emissions shall be calculated and recorded for each tank.

5.5 The following records maintain the following records for Tank 47:

5.5.1 Records of the types of volatile petroleum liquids stored in the tank.
5.5.2 Records of the maximum true vapor pressure of the liquids stored
5.5.3 Records of each inspection conducted in accordance with Condition 4.2.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax

in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report.
6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 One (1) original and 1 copy of all required reports shall be sent to the address below:
Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE

7. Administrative Conditions

7.1 This permit shall be made available on the premises.

7.2 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,

for Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:CRR:slb
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pc: Dover Title V File

RECEIVED
JUL 09 2012
BY: HLS/laf

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
655 S. Bay Road, Suite 5N
DOVER, DELAWARE 19901

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

July 3, 2012

Permit: APC-97/0503-OPERATION (Amendment 8)(NSPS) – CCUs I and II
Delaware City Refinery
CCU Modification Project

Delaware City Refining Company
4550 Wrangle Hill Road
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 **DE Admin. Code** 1102, Section 2.1.3, approval of the Department of Natural Resources and Environmental Control is hereby granted for the operation of two (2) combined cycle units (CCUs) each consisting of a General Electric Model PG6101FA Gas Turbine, each rated at 780 mmBtu/hour (HHV), a Natural Gas Fired Duct Burner (DB) rated at 192 mmBtu/hr (HHV), Nooter Erikson Heat Recovery Steam Generator (HRSG) and electric generator rated at 77 MW nominal located at the Delaware City Refinery's Delaware City Power Plant, Delaware City, Delaware in accordance with the following documents:

- Application submitted on Forms AQM-1, AQM-2, AQM-3.1, and AQM-5 dated March 16, 2011 and signed by Herman Seedorf.

This permit is issued subject to the following conditions:

1. **General Provisions**

1.1. This permit expires 5 years from the date of issuance.

1.2. Representatives of the Department may, at any reasonable time, inspect this facility.

1.3. This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:

1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and

1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.

1.4 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 DE Admin. Code 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the Regulations.

1.5 The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 DE Admin. Code 1130, Section 5(b) within 12 months of the date of issuance of this permit. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1 Air contaminant emission levels from each CCU shall not exceed the following and those specified by 7 **DE Admin. Code** 1100[1]**:**

2.1.1 NO_X:

2.1.1.1 NO_X emissions from each CCU shall not exceed the levels specified in the Table 1 below on an hourly basis:

Table 1: NO_X Emission Limits

Scenario	Proposed Limit ppmvd @ 15 % O2
CCU on NG without duct firing	15
CCU on NG with duct firing	18

2.1.1.2 NO_X emissions shall not exceed those prescribed in Condition 3, Table 1.jb.1 of **Permit: AQM-003/00016 – Part 1 (Renewal 1)(Revision 5)** dated April 5, 2011.

2.1.2 SO_2:

2.1.2.1 36.5 TPY

2.1.3 CO:

2.1.3.1 0.0202 lb/mmBtu when firing NG in the CCUs

[1] For the purpose of this condition, "TPY" is defined as "tons emitted in any rolling twelve month period". All lb/mmbtu limits shall be on an hourly basis.

2.1.2.2 0.0261lb/mmbtu when firing NG in the CCUs and RFG in the DBs
2.1.2.3 110.9 TPY

2.1.4 PM_{10} (including H_2SO_4) as measured by the average of the three stack test runs conducted pursuant to Condition 4.3:

2.1.4.1 0.0074 lb/mmbtu when firing NG in the CCUs
2.1.4.2 0.0099 lb/mmBtu when firing NG in the CCUs and RFG in the DBs
2.1.4.3 67 TPY

2.1.5 TSP as measured by the average of the three stack test runs conducted pursuant to Condition 4.3:

2.1.5.1 0.0115 lb/mmbtu when firing NG in the CCUs
2.1.5.2 0.0112 lb/mmBtu when firing NG in the CCUs and RFG in the DBs
2.1.5.3 47.8 TPY

2.1.6 VOC as measured by the average of the three stack test runs conducted pursuant to Condition 4.3:

2.1.6.1 0.0021 lb/mmbtu when firing NG in the CCUs
2.1.6.2 0.0046 lb/mmBtu when firing NG in the CCUs and RFG in the DBs
2.1.6.3 19.8 TPY

2.1.7 H_2SO_4 as measured by the average of the three stack test runs conducted pursuant to Condition 4.3:

3.1 TPY

2.1.8 Pb:

0.004 TPY

2.2 Neither CCU 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.

2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

3. Operational Limitations:

3.1 Only NG may be fired in the combustion chambers of the CCUs. Only NG or desulfurized RFG with a hydrogen sulfide content less than 0.1 grain/dscf on a 3-hour rolling average may be fired in the DBs.

3.2 The CCUs shall not be operated unless the LNBs are operating properly. Compliance with the emission limitations in 2.1.1 shall constitute proper operation.

3.3 During startups and shutdowns of the combustion turbines and/or duct burners the following shall apply:

3.3.1 CO emissions concentration limitations specified in Condition 2.1.3 shall not apply. The Company shall follow good air pollution control practices to minimize CO emissions during these periods.

3.3.2 NO_x emission rates from the CCUs shall not exceed 390 ppmv(dry) at 15 % O_2.

3.3.3 Such periods shall not exceed 2 hours in duration.

3.4

3.4.1 At all times, including periods of startup, shutdown, and malfunction, the owner or operator shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

3.4.2 All structural and mechanical components shall be maintained in proper operating condition.

4. Compliance Methodology, Testing and Monitoring Requirements

4.1 Compliance with Condition 2.1.1 shall be demonstrated using a Continuous Emissions Monitoring Systems (CEMS) for NO_x and O_2. The CEMS shall conform to the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B" and the Quality Assurance/Quality Control (QA/QC) procedures for NO_x CEMS in accordance with 40 CFR Part 60, Appendix "F".

4.2 Compliance with Condition 2.1.3 shall be demonstrated by using CEMS on the CCUs.

4.3 Compliance with Conditions 2.1.4, 2.1.5, 2.1.6, and 2.17 shall be demonstrated using annual stack test based emissions factors and fuel flow rates for the CCUs and duct burners.

4.4 Compliance with Conditions 2.1.2 and 2.1.8 shall be based on firing only NG in the CCUs and either NG or desulfurized RFG in the DBs.

4.5 Compliance with Conditions 2.2 shall be based on daily qualitative stack observations to determine the presence of any visible emissions when the units are in operation.

4.5.1 If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with Paragraph 4.5.3 below.

4.5.2 If no visible emissions are observed, no further action is required.

4.5.3 If required under Condition 4.5.3 above, the Company 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 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.

4.6 The Company shall conduct the following stack tests annually:

4.6.1 EPA Reference Method 5 for TSP

4.6.2 EPA Reference Method 5B/202 for PM_{10}, including H_2SO_4

4.6.3 EPA Reference Method 25 A for VOC

4.6.4 EPA Reference Method 8 for H_2SO_4

4.6.5 Within 90 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

4.6.5.1 One original and 2 copies of the test protocol shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 6.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

4.6.5.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

4.6.5.3 The final results of the testing shall be submitted to the Department within 60 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:	One Copy to:
Engineering & Compliance Branch	Engineering & Compliance Branch
Attn: Assigned Engineer	Attn: Surveillance Engineer
655 S. Bay Road, Suite 5N	715 Grantham Lane
Dover, DE 19901	New Castle, DE 19720

4.6.5.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment department.

4.6.5.5 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s). Failure to demonstrate compliance through the test may result in enforcement action.

4.6.5.6 The Company may petition the Department for less frequent testing if future data shows that testing on an annual basis is unwarranted.

4.7 Compliance with Condition 3.1 with respect to the H_2S concentration in RFG shall be based on a continuous monitoring device. This instrument shall be installed for continuously monitoring and recording the concentration (dry basis) of H_2S in RFG before it is combusted in any fuel burning device. The instrument shall be located downstream of all process steps

which impact the composition of RFG prior to its being combusted in any fuel burning device. These instruments shall conform to the QA/QC requirements of Appendix "F" in 40 CFR 60.

4.8 Compliance with Conditions 3.2 through 3.4 shall be based on the record keeping requirements and on information available to the Department, which may include, but is not limited to, monitoring results, opacity and process operating data.

4.9 Department representatives shall be given the opportunity to witness all stack emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program.

5. Record Keeping Requirements

5.1 The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request.

5.2 The following records shall be maintained for a period of 5 years:

5.2.1 Log of all operating hours of each CCU and DB
5.2.2 Rolling 24-hour heating value of the RFG combusted;
5.2.3 All 3-hour rolling averages of the H_2S content in RFG as measured by the H_2S analyzer;
5.2.4 Log of daily qualitative stack observations for the package boilers
5.2.6 CEMS data including calibration log and results of all Cylinder Gas Audits and all Relative Accuracy Test Audits.

6. Reporting Requirements

6.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:

6.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or to the environment.

6.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called in to the Environmental Emergency and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department in its sole discretion.

6.2 In addition to complying with complying with Condition 6.1 of this permit, the Owner/Operator shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:

6.2.1 The name and location of the facility;
6.2.2 The subject source(s) that caused the excess emissions;
6.2.3 The time and date of the first observation of the excess emissions;
6.2.4 The cause and expected duration of the excess emissions;
6.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
6.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.
6.2.7 Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report.
6.2.8 The Company shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

6.3 Send one (1) original to:
Director
Division of Air Quality
655 S. Bay Road, Suite 5N
Dover, DE 19901

and one (1) copy of all required reports to:

Program Manager
Engineering and Compliance Branch
Air Quality Management Section
715 Grantham Lane
New Castle, DE 19720

7. Administrative Conditions

7.1 This permit shall be available on the premises.

7.2 This permit authorizes the operation of the equipment authorized to be constructed by **Permit: APC-97/0503 – CONSTRUCTION (Amendment 8)(NSPS)** dated April 15, 2011 and supersedes **Permit: APC-97/0503 – OPERATION (Amendment 7)(NSPS)** dated July 23, 2009.

7.3 The Company 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.

7.4. Failure to comply with the provisions of this permit constitutes good cause for suspension or revocation of this permit.

Sincerely,

Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:CRR:slb
F:\ENGandCOMPLIANCE\CRR\crr12030.doc

pc: Dover Title V File

ATTACHMENT 3

AQM-1001 Administrative Information

Regulation No. 30
Title V State Operating Permit Program
ADMINISTRATIVE INFORMATION
Air Quality Management Section

AQM-1001

ADMINISTRATIVE INFORMATION FOR:	FOR DEPARTMENT USE, ONLY
☐ INITIAL APPLICATION	I.D. NO.:
☒ RENEWAL APPLICATION *(check one)*	PERMIT NO.:
☐ MODIFICATION	DATE: / /

SOURCE INFORMATION

1. SOURCE NAME: Delaware City Refining Company LLC Delaware City Refinery		2. DATE FORM COMPLETED: 11/19/2012
3. SOURCE STREET ADDRESS: 4550 Wrangle Hill Road		
4. CITY: Delaware City	5. ZIP: 19706	6. COUNTY: NEW CASTLE
7. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (*S/C*) CATEGORY: Petroleum Refining		8. PRIMARY *S/C* NO.: 2911
9. SOURCE ENVIRONMENTAL CONTACT PERSON: Thomas S. Godlewski, Jr.		10. CONTACT PERSON'S TELEPHONE NO.: (302) 834-6053

OWNER INFORMATION

11. NAME: Delaware City Refining Company LLC		
12. ADDRESS: 4550 Wrangle Hill Road		
13. CITY: Delaware City	14. STATE: DE	15. ZIP: 19706
16. OWNERS AGENT (*if applicable*):		

OPERATOR INFORMATION

17. NAME: Delaware City Refining Company, LLC		
18. ADDRESS: 4550 Wrangle Hill Road		
19. CITY: Delaware City	20. STATE: DE	21. ZIP: 19706

APPLICANT INFORMATION

22. WHO IS THE PERMIT APPLICANT: *(Check One)* ☐ OWNER ☒ OPERATOR	23. ALL CORRESPONDENCE TO: *(Check One)* ☐ OWNER ☒ OPERATOR ☐ SOURCE
24. CONTACT PERSON NAME AND/OR TITLE FOR WRITTEN CORRESPONDENCE: Thomas S. Godlewski, Jr. Senior Environmental Engineer	
25. TECHNICAL CONTACT FOR SUBMITTAL OF APPLICATION: Thomas S. Godlewski	26. CONTACT PERSON'S TELEPHONE NO.: (302) 834-6053

27. TOTAL COST OF PLANT: $ Not Applicable
(*Including property, buildings and air pollution control equipment, original cost basis*)

COST OF PROPOSED MODIFICAITONS: $ Not Applicable
(Modification Applications, Only)

28. PRESENT STATUS OF EQUIPMENT (Check appropriate box(es) and complete applicable items)

OPERATING PERMIT:

☒ For existing plant, date construction completed (*original facility*) / /1956

☐ Name change pending, effective date / /

CONSTRUCTION PERMIT (*for modifying sources*):

☐ Equipment to be modified or constructed	Estimated Starting Date	Estimated Completion Date
☐ Basic Equipment	/ /	/ /
☐ Air Pollution Control Equipment	/ /	/ /
☐ Change of Location Pending	/ /	/ /

29. ARE HAZARDOUS MATERIALS* OR COMPOUNDS OF SUCH MATERIALS ARE EMITTED INTO THE ATMOSPHERE FROM ANY OPERATION AT THIS LOCATION:

YES

*As defined in Section 112(b) of the November 15, 1990 Clean Air Act Amendments.

30. 1990 CLEAN AIR ACT AMENDMENTS, §112(r)

a. The facility is subject to the requirements of §112(r) of the 1990 Clean Air Act Amendments.

b. The facility has registered in compliance with the State of Delaware "Regulations for the Management of Extremely Hazardous Substances."

(if a registration has not been filed, a Compliance Schedule is required to be submitted with this Application).

31. 1990 CLEAN AIR ACT AMENDMENTS, Title VI Requirements

a. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances?

YES

b. Does any air conditioner(s) or any piece(s) of refrigeration equipment contain a refrigerant charge greater than fifty (50) pounds?

YES

(*If the answer is "YES," describe what type of equipment and how may units are at the facility*).

c. Do your facility personnel maintain, service, repair or dispose of any motor vehicle air conditioners (MVACs) or appliances? (*"Appliance" and "MVAC", as defined at 40 CFR, Part 82.152*)

NO

d. Cite and describe which Title VI requirements, if any, are applicable to your facility. (i.e., 40 CFR, Part 82, Subparts A through G)

40 CFR 82, Subpart F

32. Complete the following table, indicating each Emission Unit and each Emission Point ID.
Provide the Pint Description, and indicate which forms and other information are included as part of this application.

Emission Unit	Emission Point ID	Point Description	AQM-1001A	AQM-1001B	AQM-1001C	AQM-1001D	AQM-1001E	AQM-1001F	AQM-1001G	AQM-1001H	AQM-1001J	AQM-1001K	AQM-1001L	AQM-1001M	AQM-1001N	AQM01991V	AQM-1001W	AQM-1001X	AQM-1001Y	AQM-1001Z	AQM-1001AA	AQM-1001BB	AQM-1001CC	Process Flow Diagram	Site Plan: Stack Data and Locations	Emission Calculation Sheets	Stack Test Results	Supplemental/Other (Specify)
		See Attached	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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33. I, the undersigned, hereby certify under penalty of law that I am a Responsible Official and that I have personally examined and am familiar with the information submitted in this document and all of its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is, on knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

By signing this form, I certify that I have not changed, altered, or deleted any portions of this application.

BY: Herman Seedorf

DATE: 12 / 5 / 12

Herman Seedorf
Typed or Printed Name of Signatory

Refinery Manager
Title of Signatory

AQM-1001 Checklist [1]

DCP Unit Number	Emission Unit	Emission Point	Source Description(s)	AQM-1001A Combustion	AQM-1001B Process	AQM-1001C Incinerators	AQM-1001D Volatile Liquid Storage Tanks	AQM-1001K Stack Parameters	AQM-1001L Monitoring Equipment	AQM-1001M Compliance Schedule	AQM-1001N GEP Stack Height Determinations	AQM-1001V Applicable Requirements	AQM-1001W Emissions Comparison	AQM-1001X Compliance Monitoring Devices and Activities	AQM-1001Y Compliance Status	AQM-1001Z Compliance Schedule	AQM-1001BB Compliance Certification	AQM-1001CC Insignificant Activities	Process Flow Diagram	Site Plan	Emission Calculations	Stack Test Results	Text, Supplemental, Other [2]
10	Refinery WWTP	10-1	Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU)														X						X
22	Fluid Coke Handling and Storage Facility	22-1	Fluid Coke Handling and Storage Facility														X						X
25	25-H-401	25-4	Cracked Naptha Hydrotreater Reactor Charge Heater														X						X
25	25-H-402	25-5	Cracked Naptha Unit Reboiler Heater														X						X
25	Cracked Naphtha Hydrotreater Unit (CNHT)	N/A	Cracked Naphtha Hydrotreater Unit (CNHT)														X						X
25	Tier 2 Project	N/A	Tier 2 Gasoline Project for CNHT, the SHU Unit at the Ether Plant, and the DGA System														X						X
40	Tank Farm	N/A	Tanks 47, 166, 205, 261														X						X
84	DCPP	84-1	CCU I														X						X
84	DCPP	84-2	CCU II														X						X

NOTE 1: Forms E, F, G, H, AND J are not applicable to Delaware City Refining Company, LLC. None of these processing operations occur at DCRC's Delaware City Refinery.
NOTE 2: For Text, Supplemental, Other, see Table of Contents
X = Included

ATTACHMENT 4

AQM-1001BB – Compliance Certification

7 DE Admin. Code 1130 Title V State Operating Program Air Quality Management Section	AQM-1001BB revised

COMPLIANCE CERTIFICATION ***Form B*** Updated July 1, 2008 For Permits Issued After May 12, 2008 Using New Boilerplate Language	FOR DEPARTMENT USE, ONLY DATE RECEIVED: DATE REVIEWED: REVIEWED BY:

An application for a permit, permit modification, or permit renewal must contain a certification of compliance signed by a *Responsible Official*. This form must be submitted with each application in addition to satisfying the compliance certification requirements of Regulation No. 30 (Title V) State Operating Permits. The Annual Compliance Certification report is due February 1 of each calendar year and covers the reporting period of January 1 through December 31 of the previous calendar year. This form also fulfills the requirement to certify compliance with applicable requirements at the time of the initial application request for a permit and for a significant or minor permit revision request. This form can also be used to certify compliance with the applicable requirements and terms and conditions of the operating permit as part of request for permit renewal.

This form has been designed for permits issued after May 12, 2008 that have new boilerplate language. Note: A limited number of permits issued soon after May 12, 2008 were in-process and contain the older language. If you are uncertain of which Compliance Certification form to use, ask your permitting engineer or scientist.

Part A: FACILITY INFORMATION

1. Facility Name: Delaware City Refining Company, LLC
2. Facility Street Address: 4550 Wrangle Hill Road

3. City: Delaware City	4. State: DE	5. Zip Code: 19706

6. Are you submitting: *(check only one box)*

   A. Compliance Certification as part of an Initial Permit Application: ☐
   B. Compliance Certification as part of an Application for Permit Renewal: ☐
   C. Annual Compliance Certification: ☐
   D. Compliance Certification as part of an Application for a Minor or Significant Permit Revision: ☒

7. Permit No.: AQM-003/00016	8. Facility ID No.: 1000300016 (10 digits)	9. Date Permit Issued: 4/5/2011

10. What is the reporting period? A. Annual Compliance Certification: N/A B. Semi-Annual Report: N/A Submitted using form AQM-1001BB: If YES, Indicate the reporting period for the Semi-Annual Report: / / TO / /	11. Date Form Prepared: 11/19/2012

12. Technical Contact: Thomas S. Godlewski, Jr. Title: Senior Environmental Engineer
    Phone No.: (302) 834-6053 ext. Fax No.: (302) 836-6505 E-Mail Address: thomas.godlewski@pbfenergy.co

Part B: COMPLIANCE STATUS

1. Complete Table 1 – Compliance Status: Indicate the compliance status with respect to the terms and conditions of the Regulation No. 30 (Title V) State Operating Permit.

2. Complete Table 2 – Compliance Status – General Conditions: Indicate the Compliance Status with the General Conditions of the Regulation No. 30 (Title V) State Operating Permit.

3. Has any of the information contained in Items 1 through 5 of Part A and/or Part D, Responsible Official, information changed from that contained in the issued Regulation No. 30 (Title V) State Operating Permit?
   YES
   If YES, submit a request for an administrative permit amendment per the requirements of Regulation No. 30 Section 7(c).

4. Semi-Annual Report: Completion of this section of the form fulfills the obligation of the facility to submit a Semi-Annual Report.

   Complete Table 3, Report of Any Required Monitoring, and complete Table 4, Report of Deviations

   Is the Responsible Official reporting any deviations for the reporting period? NOT APPLICABLE

Part C: ADDITIONAL INFORMATION

1. Does the Company possess any additional information that demonstrates noncompliance with any term or condition of the Regulation No. 30 (Title V) State Operating Permit? NO

   If YES, complete Table 5 – Additional Information

2. Is the Company submitting any attachments with the annual certification report? NOT APPLICABLE

   If YES, complete Table 6 – Additional Information

Part D: CERTIFICATION BY RESPONSIBLE OFFICIAL

I, the undersigned, hereby certify under penalty of law that I am a Responsible Official and that I have personally examined and am familiar with the information submitted in the document and all of its attachments as to the truth, accuracy, and completeness of this information. I certify based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

I am submitting the Semi-Annual Report with the Annual Compliance Certification: NOT APPLICABLE
(Note: the Semi-Annual Report is due February 1st for the reporting period July 1st through December 31st and August 1st for the reporting period January 1st through June 30th of each calendar year.)

By signing this form, I certify that I have not changed, altered, or deleted any portions of this form.

Responsible Official Signature: Herman Seedorf

Responsible Official Name: Herman Seedorf
Responsible Official Title: Refinery Manager
Phone Number: (302) 834-6400 ext.

Part E: SUBMITTAL INFORMATION

1. The Annual Compliance Certification report is due February 1 of each calendar year.

2. The Annual Compliance Certification should be submitted to the following locations:

Original and one (1) copy:	One (1) copy:
State of Delaware – DNREC Division of Air and Waste Management 156 South State Street Dover, DE 19901 Attention: Program Administrator	United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103

7 DE Admin. Code 1130 (Title V) State Operating Permit Program Air Quality Management Section COMPLIANCE CERTIFICATION (continued)	AQM-1001BB revised

Facility Name: Delaware City Refining Company, LLC Operating Permit Number: AQM-003/00016 Reporting Period: NOT APPLICABLE

Table 1 – Compliance Status

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 1 – Compliance Status

COLUMN A	COLUMN B	COLUMN C	COLUMN D
Emission Unit Identification	Identification of Each Permit Term or Condition that is the basis of this Certification	Methods Used to Determine Compliance	Compliance Status During Reporting Period Continuous or Intermittent
	See Custom Form Attached		Continuous
			Continuous
			Continuous
			Continuous
			Continuous
			Continuous
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Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
PART ONE										
Condition 3 Table 1 (fc)(1)(i)(B)	40	Various	Fugitives	VOC	Emissions from Tanks 47, 166, 205 and 261 shall not exceed 4.9 tons per 12 month rolling period	EPA Tanks 4.09 or equivalent approved methodology	None	None	Type of petroleum stored, the max true vapor pressure, the avg storage temperature, and 12 month rolling emissions	Continuous
Condition 3 Table 1(fc)(1)(ii)(A)&(B)	40	166-TF-112	Fugitives	VOC	The shoe-type seal shall completely cover the annular space between the edge of the floating roof and the tank wall (< 212 cm2/meter of tank diameter, W @ at any pt < 3.81 cm).	Measuring seal gap with 0.32 cm probe in accordance with 40CFR63.120(b)(1)(i) and Reg. 24, Section 30(c)(2).	Measure the primary seal gap	Once every 5 years	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(A)&(B)	40	205-TF-153	Fugitives	VOC	The shoe-type seal shall completely cover the annular space between the edge of the floating roof and the tank wall (< 212 cm2/meter of tank diameter, W @ at any pt < 3.81 cm).	Measuring seal gap with 0.32 cm probe in accordance with 40CFR63.120(b)(1)(i) and Reg. 24, Section 30(c)(2).	Measure the primary seal gap	Once every 5 years	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(A)&(B)	40	261-TF-50	Fugitives	VOC	The shoe-type seal shall completely cover the annular space between the edge of the floating roof and the tank wall (< 212 cm2/meter of tank diameter, W @ at any pt < 3.81 cm).	Measuring seal gap with 0.32 cm probe in accordance with 40CFR63.120(b)(1)(i) and Reg. 24, Section 30(c)(2).	Measure the primary seal gap	Once every 5 years	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(C)&(D)	40	166-TF-112	Fugitives	VOC	The secondary rim mounted seal shall completely cover (< 21.2 cm2/meter of tank diameter AND W @at any pt < 1.27 cm) the annular space between the external floating roof and the wall of the storage vessel.	Measure the seal gap with a 0.32 cm diameter uniform probe in accordance with 40 CFR 63.120(b)(2).	Measure the secondary seal gap	Annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(C)&(D)	40	205-TF-153	Fugitives	VOC	The secondary rim mounted seal shall completely cover (< 21.2 cm2/meter of tank diameter AND W @at any pt < 1.27 cm) the annular space between the external floating roof and the wall of the storage vessel.	Measure the seal gap with a 0.32 cm diameter uniform probe in accordance with 40 CFR 63.120(b)(2).	Measure the secondary seal gap	Annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(C)&(D)	40	261-TF-50	Fugitives	VOC	The secondary rim mounted seal shall completely cover (< 21.2 cm2/meter of tank diameter AND W @at any pt < 1.27 cm) the annular space between the external floating roof and the wall of the storage vessel.	Measure the seal gap with a 0.32 cm diameter uniform probe in accordance with 40 CFR 63.120(b)(2).	Measure the secondary seal gap	Annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
Condition 3 Table 1(fc)(1)(ii)(E) - (I)	40	166-TF-112	Fugitives	VOC	Condition 3 Table 1 (fc)(1)(ii)(E)-(J)	Periodic Inspections.	Perform semi-annual inspection of the floating roof, seals and fittings	Semi-annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(E) - (I)	40	205-TF-153	Fugitives	VOC	Condition 3 Table 1 (fc)(1)(ii)(E)-(J)	Periodic Inspections.	Perform semi-annual inspection of the floating roof, seals and fittings	Semi-annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(fc)(1)(ii)(E) - (I)	40	261-TF-50	Fugitives	VOC	Condition 3 Table 1 (fc)(1)(ii)(E)-(J)	Periodic Inspections.	Perform semi-annual inspection of the floating roof, seals and fittings	Semi-annually	Maintain records of seal gap measurements and results of semi-annual inspections.	Continuous
Condition 3 Table 1(ff)(1)(i)&(ii)	45	047-TF-78	Fugitives	VOC	Condition 3 Table 1 (ff)(1)(i)-(ii)	Monitoring/Testing & Record Keeping	Perform complete inspection of any cover and ~~single~~ seals per 40 CFR 63, Subpart CC and the SSM Plan.	Whenever emptied for nonoperational reasons or once every ~~10~~ 5 years, whichever is more frequent (single seals)	Inspection records	Continuous
Condition 3 Table 1(ff)(1)(i)&(ii)	45	047-TF-78	Fugitives	VOC	Condition 3 Table 1 (ff)(1)(i)-(ii)	Monitoring/Testing & Record Keeping	Visually inspect internal floating roof and closure seal(s) through roof hatches.	~~Annual~~ Every 5 Years	Inspection records	Continuous
Condition 3 Table 1(ff)(1)(iii)(B)	40	047-TF-78	Fugitives	VOC	Maximum for stored petroleum liquid shall not exceed 11.1 psia.	Record Keeping	None	None	Maintain the following records: (1) Types of petroleum stored (2) Max true vapor pressure. (3) For fixed roof tanks, if maximum true vapor pressure exceeds 1.0 psia, then in addition, need avg monthly storage temp.	Continuous
Condition 3 Table 1(ff)(1)(v)	45	047-TF-78	Fugitives	VOC	~~1.1 tons in any consecutive 12 month period~~ Emissions from Tanks 47, 166, 205 and 261 shall not exceed 4.9 tons per 12 month period	EPA-approved Tank Emission Calculations	Emission Calculation (12 month rolling period)	Monthly	Maintain the following records: (1) Types of petroleum stored (2) Max true vapor pressure (3) Inspection records (4) 12 Month rolling emissions	Continuous
PART TWO										
Condition 3 Table 1 (ac)(1)(i)	10	WWTP Vapor Combustion Unit	10-1	Particulates	0.3 lb/mmBtu heat input, maximum 2-hour average; 0.74 TPY	Based on fuel type and quality	Monitor fuel flow to VCU	Continuously	Maintain rolling 12-month fuel usage by VCU	Continuous
Condition 3 Table 1 (ac)(2)(i)	10	WWTP Vapor Combustion Unit	10-1	SO_2	0.06 TPY	Based on fuel type and quality	Monitor fuel flow to VCU	Continuously	Maintain rolling 12-month fuel usage by VCU	Continuous
Condition 3 Table 1 (ac)(6)(i)	10	WWTP Vapor Combustion Unit	10-1	CO	8.2 TPY	Based on fuel type and quality	Monitor fuel flow to VCU	Continuously	Maintain rolling 12-month fuel usage by VCU	Continuous

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
Condition 3 Table 1 (db)(1)(i)(A)(1)	82	Coke Handling and Storage System	22-1	Particulates	0.2 gr/dscf from the coker silo baghouse exhaust	Maintain a pressure drop across the baghouse of <12" W.C.	Monitor the pressure drop across the baghouse continuously	Continuous	1) Maintenance log for the Mikro-pulsaire dust collector and associated monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of outages. 2) Record of continuous pressure drop readings (in. H2O) acr	Continuous
Condition 3 Table 1 (db)(1)(i)(A)(2)	82	Coke Handling and Storage System	22-1	Particulates	0.014 gr/scf from BH1-5	Monitoring/Testing	Stack testing on selected BH every 5 years	Every 5 years	Stack test results	Continuous
Condition 3 Table 1 (db)(1)(i)(A)(3)	82	Coke Handling and Storage System	22-1	Particulates	0.067 gr/scf from the Pug Mill Scrubber	Monitoring/Testing	Stack testing on the Pug Mill every 5 years	Every 5 years	Stack test results	Continuous
Condition 3 Table 1 (db)(1)(i)(B)	82	Coke Handling and Storage System	22-1	Particulates	~~46 TPY (any 12 consecutive months) for coke conveying, grading, wetting, stackout, dozing, truck/railcar loading and reclaim operations~~ 27.2 TPY TSP and 20.1 TPY PM_{10} from BH1-5, the Pug Mills Scubber, truck and railcar loading and from the storage pile in the barn	Emission calculations using stack test data and the methodology ~~and equations~~ in permit application	~~Monthly coke production records: 1) transfers through coke handling system; 2) transfers through storage area; 3) coke reclaimed; 4) duration of reclaim operations~~ Stack testing	As required for calculation methodology	1) Rolling 12 mo. emissions of TSP and PM10. 2) Stack test results ~~Rolling 12 mo. ave coke production transferred through coke handling system. 3) Rolling 12 mo. ave amounts of coke transferred to coke storage area and coke reclaimed. 4) Duration of reclaim operations durin~~	Continuous
Condition 3 Table 1 (db)(1)(i)(C)	82	Coke Handling and Storage System	22-1	Particulates	No visible emissions of any petroleum coke being transported within the refinery	Compliance with Operational Limitations (H)-(K)	See below	See below	See below	Continuous
Condition 3 Table 1 (db)(1)(i)(D)	82	Coke Handling and Storage System	22-1	Particulates	No transport of material to and from the barn in a manner to cause air pollution	Sampling/Testing	Daily ambient TSP/PM_{10} sampling	Daily	Records of daily ambient sampling	Continuous
Condition 3 Table 1 (db)(1)(ii)(C)	82	Coke Handling and Storage System	22-1	Particulates	Moisture content of coke ~~transported~~ being loaded into ~~by~~ truck: ~~greater than~~ at least 8% at all times and ~~greater than~~ at least 10% on an annual average basis	Sample coke and analyze for moisture content	Collect and analyze daily samples of coke from the storage pile, stackout and reclaim area and from the coke being loaded into trucks and railcars for moisture content	Daily (each day truck loading is conducted)	Coke sample moisture records	Continuous
~~Condition 3 Table 1 (db)(1)(ii)(D)~~	~~82~~	~~Coke Handling and Storage System~~	~~22-1~~	~~Particulates~~	~~Fugitive emissions shall not be emitted in such quantities as to cause or create a condition of air pollution~~	~~Oil wetting of the coke before loading onto the conveyor system.~~	~~None~~	~~None~~	~~None~~	~~Continuous~~
~~Condition 3 Table 1 (db)(1)(ii)(F)~~	~~82~~	~~Coke Handling and Storage System~~	~~22-1~~	~~Particulates~~	~~All conveyors and drop points shall be fully enclosed when coke is being conveyed or dropped.~~	~~None~~	~~None~~	~~None~~	~~None~~	~~Continuous~~

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
~~Condition 3 Table 1 (db)(1)(ii)(G)~~	~~82~~	~~Gasifiers~~	~~22-1~~	~~Particulates~~	~~The fluxing agent in the gasifiers shall consist solely of uncontaminated natural soil and uncontaminated additives such as limestone.~~	~~None~~	~~None~~	~~None~~	~~None~~	~~Continuous~~
Condition 3 Table 1 (db)(1)(ii)(H)	82	Coke Handling and Storage System	22-1	Particulates	Pave and maintain all raods and truck movement areas used in transporting coke	Information available	None	None	None	Continuous
Condition 3 Table 1 (db)(1)(ii)(I)	82	Coke Handling and Storage System	22-1	Particulates	Regulary use a street sweeper or other method to clean paved areas where coke accumulates	Information available	None	None	None	Continuous
Condition 3 Table 1 (db)(1)(ii)(J)	82	Coke Handling and Storage System	22-1	Particulates	Cover trucks at all times except when being loaded with coke or as soon as practicable thereafter	Information available	None	None	None	Continuous
Condition 3 Table 1 (db)(1)(ii)(K)	82	Coke Handling and Storage System	22-1	Particulates	This permit does not authorize importing coke into the refinery or storage of coke in areas outside the coker silo and barn	Information available	None	None	None	Continuous
Condition 3 Table 1 (db)(1)(ii)(L)	82	Coke Handling and Storage System	22-1	Particulates	The dp ranges for the scrubber and BH1-5 shall operate within manufacturer established ranges	Information available	Differential pressure across baghouses and scrubber	Continuous	Records of continuous pressure drop readings	Intermittent
Condition 3 Table 1 (db)(1)(ii)(M)	82	Coke Handling and Storage System	22-1	Particulates	The gravity chute and load out spout for railcars shall extend to the railcar being loaded during loading operations.	Manufacturer recommended operating procedures and parameters	None	None	None	Continuous
Condition 3 Table 1 (db)(1)(ii)(N)	82	Coke Handling and Storage System	22-1	Particulates	Railcar loading operations shall not be conducted unless its dust collector system is operating properly.	Manufacturer recommended operating procedures and parameters	None	None	None	Continuous
Condition 3 Table 1 (db)(2)(i)	82	Coke Handling and Storage System	22-1	Visible Emissions	No more than 20% opacity for 3 min/hr or 15 min/24 hr	Monitoring/Testing and Recordkeeping - Operate and monitor a broken bag detection system or conduct daily qualitative stack observation	1) Qualitative observation; 2) Conduct visual observations at 15 sec intervals for 1 hr (EPA Method 9; 40 CFR 60, App. A)	1) Daily; 2) When visible emissions are observed	1) Opacity observations documented in Intelatrac; 2) Log of Method 9 observations	Intermittent
Condition 3 Table 1 (ga)(2)(i)(A)(1) ~~&(3)~~	25	25-H-401	40658	PM10	~~7.6 lb/mmSCF fuel combusted and 3.3~~ 2.4 tons in any 12 consecutive months	Fuel Gas Usage and stack test based emissions factor	~~None~~ Stack testing in accordance with Method 5B/202 or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
Condition 3 Table 1 (ga)(2)(i)(A)(2) ~~&(3)~~	25	25-H-402	40688	PM10	~~7.6 lb/mmSCF fuel combusted AND 2.5~~ 1.7 tons in any 12 consecutive months	Fuel Gas Usage and stack test based emissions factor	~~None~~ Stack testing in accordance with Method 5B/202 or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
Condition 3 Table 1 (ga)(3)(i)(A)	25	25-H-401	40658	SO2	~~12.6~~ 8.4 tpy on a 12 month rolling average	Fuel Usage and Sulfur Content	None	None	None	Continuous
Condition 3 Table 1 (ga)(3)(i)(B)	25	25-H-402	40688	SO2	~~9.2~~ 6.0 tpy on a 12 month rolling average	Fuel Usage and Sulfur Content	None	None	None	Continuous

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
Condition 3 Table 1 (ga)(4)(i)(B)	25	25-H-401	40658	NOx	0.04 lb/MMBtu	Stack Test	Stack Test using EPA Reference Method 7E in 40 CFR 60 App. A	Annual	Stack test data	Continuous
Condition 3 Table 1 (ga)(4)(i)(B)	25	25-H-402	40688	NOx	0.04 lb/MMBtu	Stack Test	Stack Test using EPA Reference Method 7E in 40 CFR 60 App. A	Annual	Stack test data	Continuous
Condition 3 Table 1 (ga)(5)(i)(A)&(C)	25	25-H-401	40658	CO	~~12.9~~ 10.9 tpy on a 12 month rolling average ~~and 35 lb/MMSCF fuel gas combusted~~	Fuel Gas Usage and stack test based emissions factor	~~None~~ Stack testing in accordance with Method 10 or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
Condition 3 Table 1 (ga)(5)(i)(B)&(C)	25	25-H-402	40688	CO	~~9.5~~ 7.7 tpy on a 12 month rolling average ~~and 35 lb/SCF fuel gas combusted~~	Fuel Gas Usage and stack test based emissions factor	~~None~~ Stack testing in accordance with Method 10 or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
Condition 3 Table 1 (ga)(6)(i)(A)	25	25-H-401	40658	VOC	2.8 lb/MMSCF fuel gas combusted	~~Fuel Gas Usage~~ Monitoring/Testing	~~None~~ Stack testing in accordance with Method 25A or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
Condition 3 Table 1 (ga)(6)(i)(A)	25	25-H-402	40688	VOC	2.8 lb/MMSCF fuel gas combusted	~~Fuel Gas Usage~~ Monitoring/Testing	~~None~~ Stack testing in accordance with Method 25A or other methodology	~~None~~ Every 5 years	~~None~~ Stack Test Records	Continuous
PART THREE										
Condition 3 Table 1 (d)(1)(ii)(A)	84	CCU1 and CCU2	84-1; 84-2	Multiple pollutants	CCUs only fire ~~syngas or ULSD~~ natural gas in combustion chambers	Recordkeeping	None Specified	N/A	Record of all operating hours of each CCU showing clearly the hours of operation ~~with different fuel types~~	Continuous
Condition 3 Table 1 (d)(1)(ii)(C)	84	CCU1 and CCU2	84-1; 84-2	Multiple pollutants	Only natural gas or desulfurized RFG may be fired in both duct burners of the HRSGs. ~~Total shall not exceed 930,080 mmBtu/year in any rolling 12 month period~~	Recordkeeping	None Specified	N/A	~~Record of all operating hours of the duct burner of each HRSG showing clearly the hours of operation and amount of natural gas consumed~~ Rolling 24 hour heating value of RFG	Continuous
Condition 3 Table 1 (d)(1)(ii)(F)	84	CCU1 and CCU2	84-1; 84-2	Multiple pollutants	The periods of startup, shutdown~~, and fuel transfer (syngas to ULSD and ULSD to syngas)~~ of the combustion turbines and/or duct burners shall not exceed 2 hours in duration	Recordkeeping	None Specified	N/A	Record of all operating hours of each CCU	Continuous
Condition 3 Table 1 (d)(2)(i)(B) and (D)	84	CCU1 and CCU2	84-1; 84-2	TSP / PM10	~~Stack test basic (including H2SO4): 0.0076~~ 0.0115 (TSP) & ~~0.0426~~ 0.0074 (PM10) lb/mmBtu (~~firing syngas~~ without duct burners); ~~0.0081~~ 0.0112 (TSP) & ~~0.0431~~ 0.0099 (PM10) lb/mmBtu (~~firing syngas in the CCUs, Natural Gas in the~~ with duct burners)~~, 0.0090 (TSP & PM10) lb/mmBtu (firing ULSD~~	Stack test ~~based emission factors and fuel flow rates~~	Stack testing done in accordance with EPA Reference Methods 5, 5B/202	Annually	Stack test results	Continuous
Condition 3 Table 1 (d)(2)(i)(B) and (D)	84	CCU1 and CCU2	84-1; 84-2	TSP / PM10	67 TPY (TSP); 47.8 TPY (PM10) from each CCU	Stack test based emission factors and fuel flow rates	None	None	None	Continuous
Condition 3 Table 1 (d)(3)(i)(A)	85	CCU1 and CCU3	84-1; 84-3	SO2	36.5 TPY from each CCU	Compliance with (d)(3)(ii)(A)	None	None	None	Continuous

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
Condition 3 Table 1 ~~(d)(3)(ii)(A)~~	86	CCU1 and CCU4	84-1; 84-4	SO_2	Only natural gas may be fired in the CCUs and desulfurized RFG or natural gas in the duct burners	Fuel Type and Quality	Continuously monitor H_2S in RFG	Continuous	3-hr rolling H_2S in RFG	Continuous
Condition 3 Table 1 (d)(4)(i)(A)	84	CCU1 and CCU2	84-1; 84-2	NOx	Comply with Facility-wide Emission Limit for NOx in Part 1, Condition 3, Table 1.j	NOx and CO2/O2 CEMS	Operate and maintain NOx and O2 CEMS	Continuous	CEMS data, calibration and audit results	Continuous
Condition 3 Table 1 (d)(4)(i)(C) ~~,~~ & (D) ~~and (E)~~	84	CCU1 and CCU2	84-1; 84-2	NOx	Hourly basis for each CCU 15% O2: 1) 15 ppmvd CCU = ~~syngas~~ w/o duct firing; 2) 18 ppmvd CCU = ~~syngas~~ w/ duct firing; ~~3) 42 ppmvd CCU = ULSD w/o duct firing; 4) 39 ppmvd CCU = ULSD w/ duct firing; 5)~~ 390 ppmvd startups, shutdowns~~, fuel transfers~~	NOx and CO2/O2 CEMS	Operate, certify, and maintain CO CEMS (40 CFR 60 App. B, Perf. Specs and App. F QA/QC)	Continuous	CEMS data, calibration and audit results	Continuous
Condition 3 Table 1 (d)(4)(ii)(A) ~~and (B)~~	84	CCU1 and CCU2	84-1; 84-2	NO_x	~~Except during startup, shutdown, and fuel transfer,~~ The CCUs shall not be operated unless the LNBs are operating properly ~~NOx control is achieved by injecting nitrogen gas into combustion chambers of CCUs when firing syngas and by steam injection when firing ULSD~~.	~~Recordkeeping~~ Compliance with the Emissions Limitation	None Specified	N/A	CEMS data	Continuous
Condition 3 Table 1 (d)(5)(i)(A)	84	CCU1 and CCU2	84-1; 84-2	CO	110.9 TPY from each CCU	CO CEMS	Operate, certify, and maintain CO CEMS (40 CFR 60 App. B, Perf. Specs and App. F QA/QC)	Continuous	CEMS data, calibration and audit results	Continuous
Condition 3 Table 1 (d)(5)(i)(B) and (C)	84	CCU1 and CCU2	84-1; 84-2	CO	For CCUs (except for periods of startup and shutdown of the CCU or duct burner): (hourly basis) ~~0.051~~ 0.0202 lb/mmBtu for CCUs ~~on syngas~~ w/o duct firing, ~~0.069~~ 0.0261 lb/mmBtu ~~on syngas~~ with duct firing~~, natural gas 0.048 lb/mmBtu with CCU on ULSD without duct burners; 0.067 lb/mmBtu when firing ULSD in the CCUs and Natural Gas in the du~~	CO CEMS	Operate, certify, and maintain CO CEMS (40 CFR 60 App. B, Perf. Specs and App. F QA/QC)	Continuous	CEMS data, calibration and audit results	Continuous

Regulation No. 30 (Title V) State Operating Permit Program Air Quality Management Section	AQM-1001B (custom form)

Facility Name: Delaware City Refining Co. LLC | Operating Permit Number: AQM-003/00016 - Parts 1, 2, & 3 | Reporting Period: 7/1/2012 - 10/31/2012

Table 1 (Custom Form) - Compliance Status

Permit Ref	Emission Unit	Source Des.	Emission Point	Requirement Parameter	Limit	Compliance Method	Monitoring Requirement	Monitoring Frequency	Record Keeping	Compliance Status
Condition 3 Table 1 (d)(6)(i)(B)	84	CCU1 and CCU2	84-1; 84-2	VOC	Stack test based VOC emissions (lb/mmBtu): ~~Firing syngas~~ w/o duct burners firing = ~~0.0011~~ 0.0021; Firing ~~syngas~~/duct burners ~~firing natural gas~~ = ~~0.0048~~ 0.0112; ~~Firing ULSD w/o duct burners = 0.0082; Firing ULSD in the CCUs and natural gas in the duct burners = 0.0108~~	Stack test based emission factors and fuel flow rates	Stack testing done in accordance with EPA Reference Methods 25A	Annually	Stack test results	Continuous
Condition 3 Table 1 (d)(7)(i)	86	CCU1 and CCU4	84-1; 84-4	H_2SO_4	3.1 TPY from each CCU	Stack test based emission factors and fuel flow rates	Stack testing done in accordance with EPA Reference Method 8	Annual	Stack test results	Continuous
Condition 3 Table 1 (d)(8)(i)	86	CCU1 and CCU4	84-1; 84-4	Pb	0.004 TPY from each CCU	Firing only natural gas in the CCU and natural gas or desulfurized RFG in the duct	None	None	None	Continuous
Condition 3 Table 1 (d)(9)(i)	84	CCU1 and CCU2	84-1; 84-2	Visible Emissions	Must not exceed 20% opacity for 3 min in any 1 hour period or 15 min in any 24 hour period	Monitoring results, opacity and process operating data	~~EPA Reference Method 9 per Reg. 20, Section 1.5(c) whenever ULSD is fired in CCUs (unless demonstrated that it is not practicable)~~ Daily qualitiative stack observations and EPA Ref. Method 9 observations, if required	~~Quarterly~~ Daily	CCU opacity observation data	Continuous
~~Condition 3 Table 1 (f)(1)(i)(A)~~	~~82~~	~~Gasifiers~~	~~29952~~	~~Multiple pollutants~~	~~During single train operation, sulfur content of clean syngas shall not exceed 508 ppmv (dry) on a 24 hour rolling average basis and 480 ppmv (dry) on a twelve month rolling average basis. During interim period before achieving sustained two train operat~~	~~TRS CEMs~~	~~Operate and maintain TRS CEMS according to manufacturer specifications listed in the QA/QC Plan, 40 CFR 60 App. B (Perf. Spec 5), and 40 CFR 60 App. A (Relative Accuracy Method 15)~~	~~Continuous~~	~~All 24 hr rolling and 12 month rolling averages of sulfur content in clean syngas as measured by the TRS analyzer~~	~~Continuous~~
Condition 3 Table 1 (f)(3)(i)(A)	99	Facility Wide		SO2	The Owner/Operator shall not cause or allow the emission of SO2 in excess of 2079.7 TPY from the CCUs (Units 84-1 and 84-2), Boilers 80-1, 80-2, 80-3. and the package boilers combined.	Compliance shall be based on ~~CEMS for Boiler 80-3 and the CCUs and the H2S CMS for Boilers 80-1 and 80-2~~ firing only desulfurized RFG in Boilers 80-1, 80-2, 80-3, only natural gas in the CCUs and only natural gas or desulfurized RFG in the CCU duct burners.	~~The Owner/Operator shall operate and maintain SO2 CEMS for Boiler 80-3 and the CCUs and H2S CMS for Boilers 80-1 and 80-2 and they shall conform to Performance Specification 2 of 40 CFR 60, App. "B" and the QA/QC procedures shall be in accordance with 40~~ None	N/A	~~Shall maintain SO2 CEMS data, calibration and audit results in accordance with Condition 3(b).~~ None	Continuous

Facility Name: Delaware City Refining Company, LLC Operating Permit Number: AQM-003/00016 Reporting Period: NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(a)(2) Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten (10) calendar days thereafter, together with any corrected or supplemental information required concerning the deviation.	1. Did you submit a report of deviations required under Condition 3(c)(2)(ii) and/or 3(c)(2)(iii)? N/A 1.a. If you marked "YES" indicate the number of reports submitted and the date of each report: NOT APPLICABLE 1.b. Did you submit any report identified above within ten (10) calendar days without a certification by the Responsible Official? NOT APPLICABLE 1.c. If you marked "YES" to 1.b., indicate the reports that were submitted without the certification by the Responsible Official: NOT APPLICABLE 1.d. If you marked "YES" to 1.b. did you submit a report meeting the requirements of Condition 2(a)(1) within ten (10) calendar days following the initial report for each of the reports identified in 1.c.? NOT APPLICABLE If you need additional space, complete Table No. 5.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(a)(3) Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses: State of Delaware – DNREC Division of Air and Waste Management Air Quality Management Section 156 South State Street Dover, DE 19901 Attn: Program Administrator No. of Originals: 1 No. of Copies: 2 United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103 No. of Copies: 1	2.a. Did you submit any documents? NOT APPLICABLE 2.b. If "YES," did you submit to both the Department and EPA using the addresses identified in your Operating Permit? NOT APPLICABLE 2.c. Did you submit the correct number of copies for each and every submittal? NOT APPLICABLE 2.d. If you marked "NO," to 2.b. and/or 2.c., are you now submitting the document(s) with the Annual Compliance Certification? NOT APPLICABLE If you marked "YES" to 2.d., use Table 6 to attach and identify those documents that are being submitted with the Annual Compliance Certification.
Condition No. 2(h) The Owner/Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly.	3. Did you pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition No. 2(p) Risk Management Plan 1. In the event this stationary source, as defined in the State of Delaware "**Accidental Release Prevention (ARP) Regulation**" Section 4, is subject to or becomes subject to Section 5 of the "**ARP Regulation**" (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. 2. If this stationary source, as defined in the State of Delaware "**ARP Regulation**" Section 4, is not subject to Section 5 but is subject or becomes subject to Section 6 of the "**ARP Regulation**" (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware Accidental Release Prevention Group by the date specified in Section 6.6.10 and required revisions as specified by Section 6.6.1.	4. Are you subject to Section 5 of the "**ARP Regulation**"? YES 4.a. If you marked "YES" did you submit the following: 4.a.1. A risk management plan by the date specified in Section 5.10? YES 4.a.2. Required Revisions as specified in Section 5.190? YES 4.a.3. A certification statement as mandated by Section 5.185? YES 4.b. If you marked "NO" to 4.a. did you submit a compliance schedule to the Department pursuant to Regulation No. 30 Section 5(d)(8)? NOT APPLICABLE 5. Are you subject to Section 6 of the "**ARP Regulation**"? YES 5.a. If you marked "YES" did you submit the following: 5.a.1. A Delaware RMP by the date specified in Section 6.10? YES 5.a.2. Required revisions as specified by Section 6.60(j)? YES 5.b. If you marked "NO" to 5.a. did you submit a compliance schedule to the Department pursuant to Regulation No. 30 Section 5(d)(8)? NOT APPLICABLE
Condition No. 2(q) Stratospheric Ozone, 40 CFR Part 82	6. Are you subject to the provisions of Stratospheric Ozone, 40 CFR Part 82? YES 6.a. If you marked "YES" complete Table 1 and indicate your compliance status with respect to each permit term and condition.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b) Compliance Determination Methodology The Owner/Operator shall maintain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all original strip chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form.	7. Are you maintaining records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application? YES
Condition 3(b)(1)(i) The Owner/Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Conditions 3(b)(1)(ii) and 3(b)(2).	8. Did you comply with each Compliance Determination Methodology (i.e. did you conduct the compliance determination methodology as frequently and in the manner specified by the operating permit) specified in Condition 3 – Table 1 for each associated permit term and condition? NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b)(1)(ii) General Testing Requirements Upon written request of the Department, the Owner/Operator shall, at the Owner/Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records and submit reports to the Department on the results of such sampling.	9. Did the Department request that you conduct any sampling of emissions or fuel used? NO 9.a. If you marked "YES," provide a brief description of the testing requirement: Emission Unit ID / Date of Sampling / Compliance Status NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE If you need additional space, provide information in Table No. 5. 9.b. If you marked "YES," did you conduct the sampling in the timeframe and by the protocol established by the Department for each test required? NOT APPLICABLE 9.c. If you marked "YES," did you submit reports to the Department of the results for each test required? NOT APPLICABLE 9.d. If you marked "YES," are you maintaining records for each test required? NOT APPLICABLE 9.e. If you marked "NO" to 9.b., 9.c., and/or 9.d., submit a deviation report for each and every deviation. Use Table 4 to complete this information.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(b)(2)(i) General Record Keeping Requirements If required, for each operating scenario identified in Condition 3 – Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner/Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the scenario under which it is operating.	10. Does your permit contain Alternate Operating Scenarios in Condition 3 – Table 1? NO 10.a. If you marked "YES," identify the emission units and the Alternate Operating Scenario(s) for each emission unit: NOT APPLICABLE 10.b. If you marked "YES," to 10 did you maintain a log for each emission unit and corresponding Alternate Operating Scenario? NOT APPLICABLE 10.c. If you marked "YES," to 10 did you contemporaneously with changing from one operating scenario to another, record in this log the scenario under which the emission unit is operating for each emission unit and corresponding Alternate Operating Scenario? NOT APPLICABLE 10.d. If you marked "NO" to 10.b. and/or 10.c., complete Table No. 4.
Condition 3(b)(2)(ii) General Record Keeping Requirements The following information to the extent specified in Condition 3 – Table 1 of this permit. A. The date, place, and time of the sampling or measurements. B. The date(s) analyses were performed. C. The Owner/Operator or entity that performed the analysis. D. The analytical techniques or methods used. E. The results of such analyses. F. The operating conditions as existing at the time of sampling or measurement.	11. Are you maintaining the information required? YES
Condition 3(b)(2)(iv) A copy of the written notice request by Condition 3(c)(2)(iii) for each change made for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of the permit.	12. Are you maintaining a copy of the written notice for each change made under Condition 4(c) [Operational Flexibility] with a copy of the permit? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(1) Specific Reporting/Certification Requirements The Owner/Operator shall comply with the Reporting/Certification Requirement(s) detailed in Condition 3 – Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3). Each report that contains any deviation(s) from the terms of Condition 3 – Table 1 shall identify the probable cause of the deviation(s) and any corrective action(s) or preventative measure(s) taken.	13.a. Did you comply with the Reporting/Certification Requirement(s) detailed in Condition 3 – Table 1 of your Operating Permit? NOT APPLICABLE 13.b If you marked "NO," did you submit deviation report(s) for each instance where the Reporting/Certification requirements detailed in Condition 3 – Table 1 were not met? NOT APPLICABLE 13.c If you marked "NO," to 13.b, are you submitting the information with this Annual Compliance Certification? NOT APPLICABLE
Condition 3(c)(2)(i) General Reporting Requirements The Owner/Operator shall submit to the Department a report of any required monitoring not later than the first day of August (covering the period from January 1 through June 30) and the first day of February (covering the period from July 1 through December 31) of each calendar year. Each report shall identify any deviation(s) from permit requirements since the previous report, any deviation(s) from the monitoring, record keeping and reporting requirements under this permit, and the probable cause of the deviation(s) and any corrective actions or preventative measures taken. If no deviation(s) has occurred such shall be stated in the report.	14. For the reporting period of this compliance certification, did you submit the Semi-Annual Reports by the deadlines specified in the permit? NOT APPLICABLE 14.a. If you marked "NO," did you submit the Semi-Annual Report to the Department? NOT APPLICABLE 14.b. If you marked "YES" to 14.a., please identify the report(s) that were submitted late: NOT APPLICABLE If you marked "NO" to 14.a., submit a compliance schedule to submit the Semi-Annual Report(s) to the Department. Attach the compliance schedule and label as Attachment No. AQM-1001BB-1.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(ii)(A) In addition to the semi-annual monitoring reports required under Condition 3(c)(2)(i), the Owner/Operator shall submit to the Department supplemental written report(s)/notice(s) identifying all deviations from permit conditions, probable cause of the deviation(s), and any corrective actions or preventative measures as follows: If the Owner/Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two (2) working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken.	15. Did you submit any claims of affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of the operating permit? NOT APPLICABLE 15.a. If you marked "YES," identify the notice(s) submitted to the Department including the date of the emergency or malfunction, date notice submitted to the Department and a brief description of the malfunction: NOT APPLICABLE
Condition 3(c)(2)(ii)(B) In addition to the semi-annual monitoring reports required under Condition 3(c)(2)(i), the Owner/Operator shall submit to the Department supplemental written report(s)/notice(s) identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: Emission in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: 1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint Number (800) 662-8802. 2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications to the Department may be revoked by the Department upon written notice to the Company and at the Department's sole discretion.	16. Did you report any emissions in excess of any permit condition or emissions which create a condition of air pollution in accordance with Condition 3(c)(2)(ii)(B)? NOT APPLICABLE If you marked "YES," identify the report(s) submitted to the Department including the date of the emissions in excess of any permit condition or emissions which create a condition of air pollution, date of report, and a brief description of the incident: NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(ii)(C) All emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department in a written report pursuant to Condition 3(c)(2)(i) and/or the specific reporting requirements listed in Condition 3 – Table 1 of this permit.	17. Did you report any emissions in excess of any permit conditions or emissions which created a condition of air pollution in a written report pursuant to Condition 3(c)(2)(i) and/or the specific reporting requirements listed in Condition 3 – Table 1? NOT APPLICABLE 17.b. If you marked "YES," identify the reports submitted to the Department: NOT APPLICABLE
Condition 3(c)(2)(ii)(D) Discharges to the atmosphere in excess of any quantity specified in the 7 Del. C, Section 6208 ("**Reporting of a Discharge of a Pollutant or an Air Contaminant**" Regulation) shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24 hour complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement.	18. Did you report any discharges to the atmosphere in excess of any quantity specified in the 7 Del. C., Section 6028 "**Reporting of a Discharge of a Pollutant or an Air Contaminant**" Regulation? NOT APPLICABLE 18.a. If you marked "YES," identify the number of discharges reported including the date of discharge, reporting personnel, and date you reported: NOT APPLICABLE 18.b. If you marked "YES," did you report immediately upon discovery and after activating the appropriate site emergency plan? NOT APPLICABLE 17.c. If you marked "YES," did you report in person or to the Department's 24 hour complaint line? NOT APPLICABLE
Condition 3(c)(2)(iv) The Company shall submit to the Department an annual emissions statement in accordance with Regulation No. 17 Section 7 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is granted. Such emissions statement shall cover the preceding calendar year.	19. Did you submit your annual emissions statement by the deadline as required by the Department? YES

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

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COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(v) If required, the Owner/Operator shall submit to the Department a progress report for applicable requirement(s) identified in Condition 5 – Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative of corrective measures adopted.	20. Is Condition No. 5 applicable to this facility? NO 20.a. If you marked "YES," did you submit the progress reports by August 1 (covering the period January 1 through June 30 of the current calendar year) and February 1 (covering the period July 1 through December 31 of the previous calendar year)? NOT APPLICABLE 20.b. If you marked "NO" to 20.a., indicate the date the report(s) was submitted: NOT APPLICABLE 20.c. If you marked "YES" to 20.a. did each progress report contain the information specified in Conditions 3(c)(2)(v)(A) and 3(c)(2)(v)(B)? NOT APPLICABLE
Condition 4(a) In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3 – Table 1 of this permit, the Company is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change: 1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and 2. Does not involve a change in any compliance schedule date; and 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions.	21. Did all requests submitted under Condition No. 4(a) meet the requirements specified in Condition 4(a)(1) through (3)? NOT APPLICABLE 21.a. If you marked "NO," identify the request(s) that failed to meet the criteria and why. If you need additional space, use Table No. 5. NOT APPLICABLE

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 4(b) Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit.	22. Did you submit any requests to the Department pursuant to this provision? NOT APPLICABLE 22.a. If you marked "YES," provide the date of any and all submittals. Complete all information contained in Part B – Compliance Status – Table 1 for each submittal. NOT APPLICABLE 23. Did you submit a copy of each of the above requests to EPA? NOT APPLICABLE
Condition No. 4(c) The Owner and/or Operator shall keep records of any change made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit.	24. Are you maintaining records for each submittal? (Records are to be maintained for a minimum of five (5) years.) YES
Condition 3(c)(2)(iii) Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner/Operator shall give written notice to the Department and the EPA at least seven (7) calendar days before the change is to be made.	25. Did you make any changes as provided in Condition 4 [Operational Flexibility]? NOT APPLICABLE 25.a. If you marked "YES," indicate the number of changes you requested, a brief description of the change, and the date of the request: NOT APPLICABLE 25.b. If you marked "YES," did you submit written notice for each change to the Department and EPA Region III at least seven (7) calendar days before the change was made? NOT APPLICABLE 25.c. If you marked "NO," proceed to question no. 25.

Table 2 – COMPLIANCE STATUS – GENERAL CONDITIONS

If you need additional space, use Table No. 5 or attach additional pages and label as Attachment 2 – Compliance Status – General Conditions

COLUMN A	COLUMN B
Permit Term or Condition	Compliance Determination Methodology/Compliance Status
Condition 3(c)(2)(iii)(A) The seven (7) day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard.	26. Was the change as provided in Condition 4 [Operational Flexibility] shortened or eliminated in order to address unanticipated conditions posing a significant health, safety, or environmental hazard? NOT APPLICABLE 26.a. If you marked "NO," state why the seven (7) day period was shortened or eliminated: NOT APPLICABLE
Condition 3(c)(2)(iii)(B) If less than seven (7) calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Company shall provide notice to the Department and to EPA as soon as possible after learning of the need to make the change, together with the reason(s) why advance notice could not be given.	27. Did you provide less than seven (7) calendar days notice for any notice submitted pursuant to Condition 4 [Operational Flexibility]? NOT APPLICABLE 27.a. If you marked "YES," identify the notice(s) that were provided with less than seven (7) calendar days notice. Include the date of the notice and a brief description of the change. NOT APPLICABLE 27.b. If you marked "YES," did you provide the Department and EPA with notice for each notice as soon as possible after learning of the need to make the change, together with the reason(s) why advance notice could not be given? NOT APPLICABLE
Condition 3(c)(2)(iii)(C) The written notice shall include all of the following information: 1. The identification of the affected emission unit(s) and a description of the change to be made. 2. The date on which the change will occur. 3. Any changes in emissions. 4. Any permit terms and conditions that are affected, including any new applicable requirements.	27. Did the written notice(s) include the information listed in Condition 3(c)(2)(iii)(C)? NOT APPLICABLE

If you indicated a response of "NO" to any of the questions identified within Table No. 2, review and submit as "deviations" using Table No. 4 if the response indicates that a deviation occurred. If you have already reported the deviation, indicate the date and document under which the deviation was reported. If you need additional space to further explain any of your responses under Table No. 2, use Table No. 5.

DNREC – Division of Air Quality

Title V Permit Renewal Applications

Notice is hereby given that the Delaware City Refining Company having a facility at 4550 Wrangle Hill Rd, Delaware City, Delaware, has submitted a request for permit renewal pursuant to 7 **DE Admin. Code** 1130, Section 7 for operating permits: **AQM-003/00016-Part 1 (Renewal 2)**, **Part 2 (Renewal 1)** and **Part 3 (Renewal 2)**. Based on the data and certifications contained in the application, the Division of Air Quality concludes that the applicant meets all applicable requirements promulgated by the Environmental Protection Agency (EPA) and the Department of Natural Resources and Environmental Control (DNREC). Therefore a "draft/proposed" permit renewal has been prepared. These "draft/proposed" permit renewals incorporate terms from ten 7 DE Admin. Code 1102 operating permits issued since April 2011.

The application, the "draft/proposed" permit renewal **AQM-003/00016-Part 1 (Renewal 2)**, **Part 2 (Renewal 1)** and **Part 3 (Renewal 2)**, all materials that the applicant has submitted (other than those granted confidential treatment under DNREC rules), and a copy of summary of other materials, if any, considered in preparing the "draft/proposed" permit renewal may be inspected at the offices of the Division of Air Quality, Blue Hen Corporate Center, 655 S. Bay Road, Suite 5 N, Dover, Delaware and 715 Grantham Lane, New Castle, Delaware. To submit comments, for additional information or for an appointment to inspect the application, please contact Laura Bogus at the Dover Office at 739-9402.

The "draft/proposed" permit renewal is being submitted to EPA for concurrent processing. If there are no significant comments, the "draft/proposed" permit renewal will be issued as a final permit after expiration of the EPA review period.

A public hearing concerning the permitting action will not be held unless the Secretary of the Department of Natural Resources and Environmental Control receives a request for such hearing within thirty (30) days from the date of this notice, ending February 19, 2013. A request for a hearing shall be in writing and must show a familiarity with the application and a reasoned statement of the permit renewal's probable impact.

DIVISION OF AIR QUALITY
BLUE HEN CORPORATE CENTER
655 S. BAY ROAD, SUITE 5 N
DOVER, DE 19901
(302) 739-9402

DRAFT

State of Delaware
Department of Natural Resources and Environmental Control
Division of Air Quality

655 S. Bay Road, Suite 5 N
Dover, DE 19901

7 DE Admin. Code 1130 (Title V) Operating Permit
Facility I.D. Number: 1000300016
Permit Number: AQM-003/00016 – Part 1 (Renewal 2)
AQM-003/00016 – Part 2 (Renewal 1)
AQM-003/00016 – Part 3 (Renewal 2)

Effective Date: DRAFT Expiration Date: DRAFT
Renewal Application Due Date: DRAFT

Pursuant to 7 **Del. C.**, Ch 60, Section 6003, 7 **DE Admin. Code** 1102, Section 2.0 and 7 **DE Admin. Code** 1130, Section 7.2, approval by the Department of Natural Resources and Environmental Control ("Department") is hereby granted to operate the emission units listed in Condition 1 of this permit subject to the terms and conditions of this permit.

This approval is granted to:

Permittee/Owner (hereafter referred to as "Company Owner")	**Operator** (hereafter referred to as "Operator")
Delaware City Refining Company, LLC 4550 Wrangle Hill Road Delaware City, Delaware 19706 Responsible Official: Herman Seedorf Title: Refinery Manager	Delaware City Refining Company, LLC
Facility Site Location	**Facility Mailing Address**
Delaware City Refining Company, LLC 4550 Wrangle Hill Road Delaware City, Delaware 19706	Delaware City Refining Company, LLC 4550 Wrangle Hill Road Delaware City, Delaware 19706

The nature of business of the Facility is Petroleum Refining. The Standard Industrial Classification code is 2911. The North American Industry Classification System code is 324110.

DRAFT

Ravi Rangan, P.E. / Date
Engineer
Engineering & Compliance Branch
(302) 323-4542

DRAFT

Paul E. Foster, P.E. / Date
Program Manager
Engineering & Compliance Branch
(302) 323-4542

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Condition 1- Emission Unit Identification

*[Reference: 7 **DE Admin. Code** 1130 Section 3.3 dated 11/15/93]*

a. Emission Units Information.

Emission Unit	Emission Point	Emission Unit Description
HDS	29-1	Catalytic Hydrodesulfurizer Train 1 feed heater (29-H-101) and fractionator heater (29-H-8)
	29-2	Catalytic Hydrodesulfurizer Train 2 feed/fractionator heater (29-H-2), Train 3 feed heater (29-H-3) and fractionator reboiler heater (29-H-9)
	29-3	Catalytic Hydrodesulfurizer Train 4 feed heater (29-H-4) and Train 4 fractionator heater (29-H-7)
	29-4	Catalytic Hydrodesulfurizer Train 5 fractionator heater (29-H-6) and Train 5 feed heater (29-H-5)
Tetra	fugitives	Tanks
	32-1	Tetra unit feed heater (32-H-101)
SHU	33-1	Selective hydrogenation unit start up heater (33-H-1)
	33-2	Selective hydrogenation unit reboiler heater (33-H-2)
Olefins	34-1	Olefins reboiler heater (34-H-101)
HC	36-1	Hydrocracker unit feed heater (36-H-1)
	36-2	Hydrocracker unit vacuum column reboiler (36-H-2)
	36-2	Hydrocracker unit fractionator reboiler (36-H-3)
FES	40-1	Refinery frozen earth propane storage flare system
TF	Various	Refinery Tank Farm classified under 11 groups based on type of construction, type of seal, vapor pressure of the stored liquid and the regulatory applicability of different regulations.
EP	fugitives	Ether Plant
WWTP	Carbon canister locations	Oily Sewer System, API?CPI separators, flash mix tank, spill diversion and equalization tanks, 2 flocculation tanks and dissolved nitrogen floatation (DNF) system
	10-1	DNF Oil Recovery System and Vapor Combustion Unit (VCU)
	Various	Secondary and tertiary treatment equipment (downstream of DNF), 1st and 2nd stage activated sludge, sand filtration and assorted sumps and equipment
GDF	N/A	Gasoline dispensing facility

Emission Unit	Emission Point	Emission Unit Description
MVR	15-1 15-2	Marine piers 2 and 3 loading area
CU	21-1	Crude Unit, Atmospheric heater 21-H-701, and vacuum heater 21-H-2
		Crude coker gasoline Merox treater
	21-1 or 28-1 or 28-2	SWS hydrogen sulfide stripping vessel, 21-C-302
FCU	22-1	Petroleum Coke Storage and Handling Complex
	22-2	Fluid Coking Unit (FCU), FCU start up heater 22-H-1, CO Boiler (22-H-3), wet gas scrubber and SNCR
FCU	22-3	Back up incinerator 22-H-4
	22-4	FCU Selas Steam Superheater
FCCU	23-1	FCCU start up heaters 23-H-1A and 1B, FCCU, CO Boiler (22-H-3), wet gas scrubber, alky merox spent air, and poly merox spent air
GP	Fugitives	Refinery gas plant
REFORMER	25-4 and 25-5	CNHT reactor charge heater 25-H-401, CNHT reboiler heater 25-H-402, CHNT unit, reformer, butamer unit
ALKY	Fugitives	Alkylation Unit
POLY	Fugitives	Polymerization unit
SRA	28-1 and 28-2	Sulfur recovery area inclusive of 2 Claus sulfur recovery units (SRU I and SRU II), Shell Claus Offgas Treatment Units I (SCOT I and II)
HP	37-1A and 37-1B	Hydrogen plant and reformer heater 37-H-1 A/B
MP	41-1 and 41-2	This unit has been shut down with no foreseeable plan to restart
CCR	42-1 and 42-1	CCR reformer unit, platform heater 42-H-1,2,3 and CCR reboiler 42-H-7
Utilities	45-1 and 45-2	Refinery flare system, spent caustic stripper and RFG2K cooling tower
DCPP	80-1	Boiler #1 (618 mmBTU/hr input, natural gas and desulfurized refinery fuel gas fired)
	80-2	Boiler #2 (716 mmBTU/hr input, natural gas and desulfurized refinery fuel gas fired)
	80-3	Boiler #3 (618 mmbTU/hr input, syngas, natural gas, and desulfurized refinery fuel gas fired)
	80-4	Boiler #4 (737 mmBTU/hr input, desulfurized refinery fuel gas fired)
Cooling Tower	50	Three-Cell Linear Mechanical Draft Evaporative Cooler (gas flow of 3,000,000 ACFM, cooling water flow of 30,000 gallons per minute)
CCU	84	CCU1 & CCU2 – Each, one Gas Turbine (HHV input of 780 mmBTU/hr, natural gas fired)

Emission Unit	Emission Point	Emission Unit Description
CCU	84	Duct burner (192 mmBTU/hr, HHV , natural gas or desulfurized refinery fuel gas fired, one each, CCU1 & CCU2)
	84	Heat Recovery Steam Generator (one each, CCU1 & CCU2)
	84	Electric Generator (90 MW nominal, one each, CCU1 & CCU2)
Package Boilers	45	4Package Boilers (99.99 mmBTU/hr input each, natural gas or desulfurized refinery fuel gas fired)

b. Regulation No. 1102 Permit Identification.

This table identifies the underlying permits whose provisions have been incorporated into this Title V permit and specifies the reference number that will be used to identify the source of the underlying permit condition throughout this Title V permit.

Reference Number	Full Regulation No. 1102 Permit Designation
APC-82/0633	**APC-82/0633-OPERATION** issued February 8, 1985. Heater Unit 29-H-101
APC-81/0790	**APC-81/0790-OPERATION** issued June 17, 1981. Heater Unit 29-H-2.
APC-81/0791	**APC-81/0791-OPERATION** issued June 17, 1981. Heater Unit 29-H-3.
APC-81/0792	**APC-81/0792-OPERATION** issued June 17, 1981. Heater Unit 29-H-4.
APC-81/0793	**APC-81/0793-OPERATION** issued June 17, 1981. Heater Unit 29-H-5.
APC-81/0794	**APC-81/0794-OPERATION** issued June 17, 1981. Heater Unit 29-H-6.
APC-81/0795	**APC-81/0795-OPERATION** issued June 17, 1981. Heater Unit 29-H-7.
APC-81/0796	**APC-81/0796-OPERATION** issued June 17, 1981. Heater Unit 29-H-8.
APC-81/0797	**APC-81/0797-OPERATION** issued June 17, 1981. Heater Unit 29-H-9.
APC-81/0873	**APC-81/0873-OPERATION** issued August 21, 1981. Hydrodesulfurizer Train I.
APC-81/0874	**APC-81/0874-OPERATION** issued August 21, 1981. Hydrodesulfurizer Train II.
APC-81/0875	**APC-81/0875-OPERATION** issued August 21, 1981. Hydrodesulfurizer Train III.
APC-81/0876	**APC-81/0876-OPERATION** issued August 21, 1981. Hydrodesulfurizer Train IV.
APC-81/0877	**APC-81/0877-OPERATION** issued August 21, 1981. Hydrodesulfurizer Train V.
APC-81/0832	**APC-81/0832-OPERATION (Amendment 1)(HON)** issued October 23, 1997. Benzene Loading Facility.
APC-81/0833	**APC-81/0833-OPERATION** issued February 24, 1982. Aromatics Fractionation and Storage Facility.
APC-82/0979	**APC-82/0979-OPERATION** issued September 16, 1982. Nitrogen Grade Toluene Facility.
APC-81/0802	**APC-81/0802-OPERATION** issued June 17, 1981. Heater Unit 32-H-101.
APC-81/0805	**APC-81/0805-OPERATION** issued June 17, 1981. Heater Unit 33-H-1.

Reference Number	Full Regulation No. 1102 Permit Designation
APC-81/0806	**APC-81/0806-OPERATION** issued June 17, 1981. Heater Unit 33-H-2.
APC-81/0822	**APC-81/0822-OPERATION (Amendment 1)** issued June 12, 1992. Olefins Plant.
APC-81/0808	**APC-81/0808-OPERATION** issued June 17, 1981. Heater Unit 134-H-101.
APC-81/0966	**APC-81/0966-OPERATION** issued September 9, 1981. Hydrocracker Unit and Process Heaters 36-H-1, 36-H-2, and 36-H-3.
APC-80/0869(A5)	**APC-80/0869-OPERATION (Amendment 5)(VOC RACT)(NSPS)** issued November 4, 1999. Intermediate Product Tank Farm.
APC-80/0869(A6)	**APC-80-0869-OPERATION (Amendment 6)(MACT)(VOC RACT)(NSPS)** issued June 22, 2012 for Tanks 47, 166, 205 and 261
APC-80/0870(A3)	**APC-80/0870-OPERATION (Amendment 3)(VOC RACT)(NSPS)** issued March 29, 2000. Crude Oil Tank Farm.
APC-80/0870(A2)	**APC-80/0870-OPERATION (Amendment 2)(VOC RACT)(NSPS)** issued October 12, 1994. Crude Oil Tank Farm.
APC-81/0120	**APC-81/0120-OPERATION (Amendment 2)(RACT)** issued November 6, 1996. Sour Water Treatment Crude Unit.
APC-80/0868	**APC-80/0868-OPERATION** issued April 30, 1980. Product Tank Farm.
APC-80/0868-C/O	**APC-80/0868-CONSTRUCTION/OPERATION (NSPS)(RACT)(MACT)** dated March 29, 2006 for the Ethanol Blending Project
APC-80/0868(A3)	**APC-80-0868-OPERATION (Amendment 3)(MACT)(VOC RACT)(NSPS)** issued June 22, 2012 for Tanks 47, 166, 205 and 261
APC-91/0553	**APC-91/0553-OPERATION (RACT)(MACT)** issued January 30, 1995. Ether Plant.
APC-81/0283	**APC-81/283 OPERATION** issued January 14, 1981 for the Oil Recovery System
APC-81/1008(A3)	**APC-81/1008 OPERATION (Amendment 3)(NESHAP)** issued October 31, 2000 for the API/CPI Separators
APC-81/1008(A4)	**APC-81/1008-CONSTRUCTION/OPERATION (Amendment 4)(NESHAP)** issued February 22, 2001 for the API/CPI Separators
APC-81/1009(A2)	**APC-81/1009 OPERATION (Amendment 2)(NESHAP)** issued November 8, 1999 for the Equalization Tanks and Spill Diversion Tank
APC-81/1009	**APC-81/1009 OPERATION** dated June 17, 1981 for 2 second stage clarifiers and 2 second stage aeration tanks[3]
APC-93/0350(A1)	**APC-93/0350 CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)** issued on June 25, 2001 for the Oily Water Sewer System
APC-94/0710(A1)	**APC-94/0710-CONSTRUCTION/OPERATION (Amendment 1)(NESHAP)(NOx RACT)** issued October 22, 2012for the WWTP VCU Fuel Switch Project
APC-95/0862-OI	**APC-95/0862-OPERATION (Stage I)** issued April 28, 1995 for the Dual point Stage I Vapor Recovery System
APC-95/0863-OII	**APC-95/0863-OPERATION (Stage II)** issued April 28, 1995 for the Healy Stage II Vapor Recovery System
APC-95/0471(A2)	**APC-95/0471-OPERATION (Amendment 2)(MACT)(RACT)** issued May 3, 2002 for the Marine Vapor Recovery System
APC-81/0828(A2)	**APC-81/0828-OPERATION (Amendment 2)(PSD-NSR)** issued September 7, 2011 for the Crude Unit

Reference Number	Full Regulation No. 1102 Permit Designation
APC-95/0570(A3)	**APC-95/0570-OPERATION (Amendment 2)(LAER)(NSPS**) issued February 20, 2009, for the Crude Unit Atmospheric heater 21-H-701
APC-81/0784(A2)	**APC-81/0784-CONSTRUCTION (Amendment 1)(NOx RACT)** issued February 20, 2009 for the Vacuum Tower Heater
APC-81/0784	**APC-81/0784-OPERATION** issued June 17, 1981 for the Vacuum Tower Heater
APC-81/0963	**APC-81/0963-OPERATION** issued August 12, 1981 for the Coker Merox Plant
APC-81/0785	**APC-81/0785-OPERATION** issued June 17, 1981 for various heaters
APC-81/0829(A8)	**APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)** issued September 7, 2011 for the Fluid Coker Unit, FCU Carbon Monoxide Boiler, Wet Gas Scrubber, and Selective Non-Catalytic Reduction System
APC-82/1209(A7)	**APC-82/1209-OPERATION (Amendment 7)** issued June 14, 2012 for the Petroleum Coke Storage and Handling System
APC-82/0981(A9)	**APC-82-0981-OPERATION (Amendment 9) (NSPS)** issued April 30, 2012 for the Fluid Catalytic Cracking Unit (FCCU), FCCU Carbon Monoxide Boiler, and Wet Gas Scrubber system and additional NOx control system
APC-81/0827(A1)	**APC-81/0827-OPERATION (Amendment 1)(RACT)(NSPS)** issued January 30, 1995 for the Alkylation Merox unit-Merox Treater
APC-98/0522(A1)	**APC-98/0522-OPERATION (Amendment 1)(NSPS)** issued August 15, 20112 for the CHNT Heaters 25-H-401 and 25-H-402
APC-98/0523(A1)	**APC-98/0523-OPERATION (Amendment 1)(NSPS)(RACT)(NESHAP)** issued August 15, 2012 for the Cracked Naphtha Hydrotreater Unit
APC-81/0825	**APC-81/0825-OPERATION** issued June 17, 1981 for the Catalytic Reformer Unit
APC-82/0593	**APC-82/0593-OPERATION** issued March 31, 1982 for the Polymerization Merox plant
APC-81/0826(A2)	**APC-81/0826-OPERATION (Amendment 2**) issued August 22, 1991 for the Alkylation and Polymerization Units
APC-98/0264(A7)	**APC-98/0264-CONSTRUCTION/OPERATION (Amendment 7)(NSPS)** issued June 18, 2008 for the Sulfur recovery Area
APC-81/0965	**APC-81/0965-OPERATION** issued September 9, 1981 for the Hydrogen Plant
APC-81/0965(A1)	**APC-81/0965-OPERATION (Amendment 1)(VOC RACT)** issued April 7, 2003 for the Hydrogen plant Replacement of Low Temperature Shift Reactor Catalyst
APC-82/0073	**APC-82/0073-OPERATION** issued February 8, 1985 for the CCR Reformer and Heater 42-H-1,2,3;
APC-82/0073(A1)	**APC-82/0073-OPERATION (Amendment 1)(MACT)** issued August 16, 2005 for the CCR Reformer and Hydrochloric Acid Wet Gas Scrubber
APC-82/0632	**APC-82/0632-OPERATION** issued February 8, 1985 for the CCR Reformer Reboiler Heater 42-H-7
APC-81/0830	**APC-81/0830-OPERATION** issued July 30, 1981 for the Flare System
APC-95/0381	**APC-95/0381-**OPERATION issued May 13, 1996 for the Spent Caustic Stripper
APC-2005/0197	**APC-2005/0197-OPERATION (RACT)(MACT)(NSPS)** issued June 27, 2008 for the Tier 2 Gasoline Project

Reference Number	Full Regulation No. 1102 Permit Designation
APC-90/0288(A9)	**APC-90/0288-OPERATION (Amendment 9) – Boiler 1** issued May 26, 2009. Emission Unit 80-1
APC-90/0289(A7)	**APC-90/0289-OPERATION (Amendment 7) – Boiler 2** issued May 26, 2009. Emission Unit 80-2
APC-90/0290(A8)	**APC-90/0290-OPERATION (Amendment 8) – Boiler 3** issued May 26, 2009. Emission Unit 80-3
APC-90/0288(A6)	**APC-90/0288-OPERATION (Amendment 6)** issued December 16, 2008. Boiler 1, Emission Unit 80-1.
APC-90/0289(A7)	**APC-90/0289-OPERATION (Amendment 7)** issued December 16, 2008. Boiler 2, Emission Unit 80-2.
APC-90/0290(A6)	**APC-90/0290-OPERATION (Amendment 6)** issued December 16, 2008. Boiler 3, Emission Unit 80-3.
APC-90/0291(A1)	**APC-90/0291-OPERATION (Amendment 1)** issued December 16, 2008. Boiler 4, Emission Unit 80-4.
APC-97/0503(A5)	**APC-97/0503-OPERATION (Amendment 5)(LAER)(NSPS)** issued December 16, 2008. Two combined cycle units, two duct burners, two heat recovery steam generators, two electric generators, Emission Unit 84.
APC-90/0291(A2)	**APC-90/0291-OPERATION – Boiler #4** issued May 26, 2009. Boiler No. 4, Emission Unit 80-4.
APC-97/0504	**APC-97/0504-OPERATION** issued August 6, 2003. Gasifiers #1 & #2, two gas coolers, amine acid gas removal system, syngas flare – Unit 82, One 3-cell linear mechanical draft evaporative cooler – Emission Unit 50.
APC-97/0503(A8)	**APC-97/0503-OPERATION (Amendment 8)(NSPS)** issued July 3, 2012for the CCU Modification Project
AQM-003/00016-CAIR	**AQM-003/00016-CAIR** issued May 27, 2008. DCPP4 (Boiler No. 4)
APC-2009/ 0089(A1)	**APC-2009/0089-CONSTRUCTION/OPERATION (Amendment 1) – 4 package Boilers** issued May 26, 2009. 4 Package Boilers

Condition 2 - General Requirements

a. Certification.

1. Each document submitted to the Department/EPA as required by this permit shall be certified by a Responsible Official as to truth, accuracy, and completeness. Such certification shall be signed by a Responsible Official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." *[Reference: 7 **DE Admin. Code** 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 12/11/00]*

2. Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of discovery of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten calendar days thereafter, together with any corrected or supplemental information required concerning the deviation. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.3.4 dated 12/11/00]*

3. Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses:

State of Delaware – DNREC Division of Air Quality Blue Hen Corporate Center 655 S. Bay Road, Suite 5 N Dover, DE 19901 ATTN: Division Director	Section Chief United States Environmental Protection Agency Associate Director of Enforcement (3AP12) 1650 Arch Street Philadelphia, PA 19103
No. of Originals: **1** & No. of Copies: **1**	No. of Copies: **1**

b. Compliance.

1. The Owner and/or Operator shall comply with all terms and conditions of this permit. Any noncompliance with this permit constitutes a violation of the applicable requirements under the Clean Air Act, and/or 7 **DE Admin. Code** 1100, and is grounds for an enforcement action; for permit termination, revocation, and reissuance or modification; or for denial of a permit renewal. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.1 dated 12/11/00]*

2.
   i. For applicable requirements with which the source is in compliance, the Owner and/or Operator shall continue to comply with such requirements. *[Reference: 7 **DE Admin. Code** 1130 Sections 5.4.8.3.1 dated 11/15/93 and 6.3.3 dated 12/11/00]*

   ii. For applicable requirements that will become effective during the term of this permit, the Owner and/or Operator shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. *[Reference: 7 **DE Admin. Code** 1130 Sections 5.4.8.3.2 dated 11/15/93 and 6.3.3 dated 12/11/00]*

3. Nothing in Condition 2(b)(1) of this permit shall be construed to preclude the Owner and/or Operator from making changes consistent with Condition 2(m)(3) [Minor Permit Modifications] or Condition 4(a) [Operational Flexibility]. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.8 dated 12/11/00 and 7.5.1.5 dated 12/11/00]*

4. The fact that it would have been necessary to halt or reduce an activity in order to maintain compliance with the terms and conditions of this permit shall not constitute a defense for the Owner and/or Operator in any enforcement action. Nothing in this permit shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious that the impacts of continuing operations. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.2 dated 12/11/00]*

5. The Owner and/or Operator may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency or malfunction if both the record keeping requirements in Condition 3(b)(2)(iii) and the reporting requirements in Condition 3(c)(2)(ii)(A) are satisfied. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.2 dated 12/11/00]*

6.
   i. In any enforcement proceeding, the Owner and/or Operator seeking to establish the occurrence of an emergency or malfunction has the burden of proof. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.4 dated 12/11/00]*

   ii. The provisions of 7 **DE Admin. Code** 1130 pertaining to Emergency/Malfunctions as defined in Conditions Nos. 2(b)(5); 2(b)(6); 3(b)(2)(iii); and 3(c)(2)(ii)(A) of this permit are in addition to any emergency or malfunction provision contained in any applicable requirement. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.5 dated 12/11/00]*

7. Reserved.

8. If required, the schedule of compliance in Condition 5 of this permit is supplemental to and shall not sanction noncompliance with the applicable requirements upon which it is based. *[Reference: 7 **DE Admin. Code** 1130 Section 5.4.8.3.3 dated 11/15/93]*

9. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate noncompliance with any term of this permit. *[Reference: 62 FR 8314 dated 2/24/97]*

10. All terms and conditions of this permit are enforceable by the Department and by the U.S. Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only" *[Reference: 7 **DE Admin. Code** 1130 Section 6.2.1 dated 12/11/00]*

c. **Confidentiality**. The Owner and/or Operator may make a claim of confidentiality for any information or records submitted to the Department. However, by submitting a permit application, the Owner and/or Operator waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 **Del. C.**, Ch 60, § 6014. *[Reference: 7 **DE Admin. Code** 1130 Sections 5.1.4 dated 11/15/93, 6.1.3.3.5 dated 12/11/00, and 6.1.7.5 dated 12/11/00]*

1. Confidential information shall meet the requirements of 7 **Del. C.**, Ch 60, § 6014, and 29 **Del. C.**, Ch 100. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.4 dated 11/15/93]*

2. If the Owner and/or Operator submits information to the Department under a claim of confidentiality, the Owner and/or Operator shall also submit a copy of such information directly to the EPA, if the Department requests that the Owner and/or Operator do so. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.4 dated 11/15/93]*

d. **Construction, Installation, or Alteration**. The Owner/Operator shall not initiate construction, installation, or alteration of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department under Regulation No. 1102, and, when applicable, Regulation No. 1125, and receiving approval of such application from the Department; except as exempted in the State of Delaware Regulation No. 1102 Section 2.2. *[Reference: 7 **DE Admin. Code** 1102 Section 2.1 dated 6/1/97 and 7 **DE Admin. Code** 1130 Section 7.2.3 dated 12/11/00]*

e. **Definitions/Abbreviations**. Except as specifically provided for below, for the purposes of this permit, terms used herein shall have the same meaning accorded to them under the applicable requirements of the Clean Air Act and 7 **DE Admin. Code** 1100.

1. "Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 et seq. *[Reference: 7 **DE Admin. Code** 1130 Section 2 dated 11/15/93]*

2. "AP-42" means the Compilation Of Air Pollutant Emission Factors, Fifth Edition, AP-42, dated January 15, 1995, as amended with Supplements "A" dated February 1996, "B" dated November 1996, "C" dated November 1997, "D" dated August 1998, "E" dated September 1999, and "F" dated September 2000 and the December 2001 update, the December 2002 update and the December 2003 update.

3. "CFR" means Code of Federal Regulations.

4. "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the sources, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.1 dated 12/11/00]*

5. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the malfunction. A malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.1 dated 12/11/00]*

6. "Number 2 fuel oil" and "No. 2 fuel oil" means distillate oil.

7. "Reg." and "Regulation" mean the regulations covered under 7 **DE Admin. Code** 1100.

8. "Regulations Governing the Control of Air Pollution" means the codification of those regulations enacted by the Delaware Department of Natural Resources and Environmental Control, in accordance with 7 **Del. C.,** Ch 60, § 6010.

f. Duty to Supplement.

1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the Owner and/or Operator shall promptly submit to the Department such supplementary facts or corrected information. *[Reference: 7 **DE Admin. Code** 1130 Section 5.2 dated 11/15/93]*

2. The Owner and/or Operator shall promptly submit to the Department information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to the release of a corresponding draft permit. *[Reference: 7 **DE Admin. Code** 1130 Section 5.2 dated 11/15/93]*

3. The Owner and/or Operator shall furnish to the Department, upon receipt of a written request and within a reasonable time specified by the Department:

   i. Any information that the Department determines is reasonably necessary to evaluate or take final action on any permit application submitted in accordance with Condition 2(l) or 2(m) of this permit. The Owner and/or Operator may request an extension to the deadline the Department may impose on the response for such information. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.2.3 dated 11/15/93]*

   ii. Any information that the Department requests to determine whether cause exists to modify, terminate, or revoke this permit, or to determine compliance with the terms and conditions of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.5 dated 12/11/00]*

   iii. Copies of any records required to be kept by this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.5.7 dated 12/11/00]*

g. Emission Trading. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.9 dated 12/11/00]*

h. Fees. The Owner/Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.8 dated 12/11/00 and Section 9.0 dated 11/15/93]*

i. Inspection and Entry Requirements. Upon presentation of identification, the Owner/Operator shall allow authorized officials of the Department to perform the following:

1. Enter upon the Owner/Operator's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.2.1 dated 12/11/00]*

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.2.2 dated 12/11/00]*

3. Inspect, at reasonable times and using reasonable safety practices, any facility, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.2.3 dated 12/11/00]*

4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.2.4 dated 12/11/00]*

j. **Permit and Application Consultation**. The Owner/Operator is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion, or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.1.7 dated 11/15/93]*

k. **Permit Availability**. The Owner/Operator shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. *[Reference: 7 **DE Admin. Code** 1102 Section 8.1 dated 6/1/97]*

l. **Permit Renewal**. This permit expires 5 years from the date of issuance except as provided in Condition 2(l)(3) below. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.2 dated 12/11/00]*

1. Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, affected state comment, and EPA review, that apply to initial permit issuance under 7 **DE Admin. Code** 1130 Section 7.1, except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by Reference: from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by Reference. *[Reference: 7 **DE Admin. Code** 1130 Section 7.3.1 dated 12/11/00]*

2. The Owner and/or Operator's right to operate shall cease upon the expiration date unless a timely and complete renewal application has been submitted to the Department *no later than 12 months prior to the expiration date of the permit.* *[Reference: 7 **DE Admin. Code** 1130 Section 7.3.2 dated 12/11/00]*

3. The Department shall review each application for completeness and shall inform the applicant within 60 days of receipt if the application is incomplete. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness within 60 days of an application, an application will be deemed complete if it contains the information required by the application form and 7 **DE Admin. Code** 1130 Section 5.4. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.2.1 dated 11/15/93*

4. If a timely and complete application for a permit renewal is submitted to the Department pursuant to 7 **DE Admin. Code** 1130, Section 5.1.2.4 (dated 11/15/93) and Section 7.3.1 (dated 12/11/00) and the Department, through no fault of the Owner and/or Operator, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. *[Reference: 7 **DE Admin. Code** 1130 Section 7.3.3 dated 12/11/00]*

m. Permit Revision and Termination.

1.
   i. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]*

   ii. Except as provided under Condition 2(m)(3) ["Minor Permit Modification"], the filing of a request by the Owner and/or Operator for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any term or condition of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00 and 7.5.1.5 dated 12/11/00]*

2. "Administrative Permit Amendment." When required, the Owner and/or Operator shall submit to the Department a request for an administrative permit amendment in accordance with 7 **DE Admin. Code** 1130 Section 7.4. *[Reference: 7 **DE Admin. Code** 1130 Section 7.4 dated 12/11/00]*

3. "Minor Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a minor permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.1 and 7.5.2. *[Reference: 7 **DE Admin. Code** 1130 Section 7.5.1 dated 12/11/00 and 7.5.2 dated 12/11/00]*

   i. For a minor permit modification, during the period of time between the time the Owner and/or Operator makes the change or changes proposed in the minor permit modification application and the time that the Department takes action on the application, the Owner and/or Operator shall comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period the Owner and/or Operator, at its own risk, need not comply with the existing terms and conditions of this permit that it seeks to modify. *[Reference: 7 **DE Admin. Code** 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]*

   ii. If the Owner and/or Operator fail to comply with its proposed permit terms and conditions during this time period, the existing terms and conditions of this permit may be enforced against the Owner and/or Operator. *[Reference: 7 **DE Admin. Code** 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]*

4. "Significant Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a significant permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.3. *[Reference: 7 **DE Admin. Code** 1130 Section 7.5.3 dated 12/11/00]*

5.
   i. When the Owner and/or Operator is required to meet the requirements under Section 112(g) of the Act or to obtain a preconstruction permit under 7 **DE Admin. Code** 1100, the Owner and/or Operator shall file a complete application to revise this permit within 12 months of commencing operation of the construction or modification. *[Reference: 7 **DE Admin. Code** 1130 Section 5.1.1.4 dated 11/15/93]*

   ii. When the Owner and/or Operator is required to obtain a preconstruction permit, the Owner and/or Operator may submit an application to revise this permit for concurrent processing. The revision request for this permit when submitted for concurrent processing shall be submitted to the Department with the Owner and/or Operator's preconstruction review application or at such later time as the Department may allow. Where this permit would prohibit such construction or change in operation, the Owner and/or Operator shall obtain a permit revision before commencing operation. *[Reference: 7 **DE Admin. Code** 1102 Sections 11.2.10, 11.5 and 12.4, dated 6/11/06, and 7 **DE Admin. Code** 1130 Section 5.1.1.4 dated 11/15/93]*

   iii. Where an application is not submitted for concurrent processing, the Owner and/or Operator shall obtain an operating permit under 7 **DE Admin. Code** 1100 prior to commencing operation

of the construction or modification to cover the period between the date operation is commenced and until such time as operation is approved under 7 **DE Admin. Code** 1130. *[Reference: 7 **DE Admin. Code** 1102 Section 2.1 dated 6/11/06]*

6. "Permit Termination." The Owner and/or Operator may at any time apply for termination of this permit in accordance with 7 **DE Admin. Code** 1130 Section 7.8.4 or Section 7.8.5. *[Reference: 7 **DE Admin. Code** 1130 Sections 7.8.4 dated 12/11/00 and 7.8.5 dated 12/11/00]*

n. Permit Transfer.

1. A change in ownership or operational control of this facility shall be treated as an administrative permit amendment where the Department has determined that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new owner has been submitted to the Department. *[Reference: 7 **DE Admin. Code** 1130 Section 7.4.1.4 dated 12/11/00]*

2. In addition to any written agreement submitted by the Owner and/or Operator in accordance with Condition 2(n)(1), the Owner and/or Operator shall have on file at the Department a statement meeting the requirements of 7 **Del. C.,** Ch 79, Section 7902. *This permit condition is state enforceable only. [Reference: 7 **Del. C.,** Ch 79 Section 7902 dated 8/28/2007]*

3. The written agreement required in Condition 2(n)(1) of this permit shall be provided to the Department within a minimum of 30 calendar days prior to the specific date for transfer and shall indicate that the transfer is agreeable to both the current and new owner. *[Reference: 7 **DE Admin. Code** 1102 Section 7.1 dated 6/1/97]*

o. Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.4 dated 12/11/00]*

p. Risk Management Plan Submissions.

1. In the event this stationary source, as defined in the State of Delaware 7 **DE Admin. Code** 1201 "Accidental Release Prevention Regulation" Section 4.0, is subject to or becomes subject to Section 5.0 of 7 **DE Admin. Code** 1201 (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.4 dated 12/11/00, 7 **DE Admin. Code** 1201 as amended March 11, 2006 and Delaware; Approval of Accidental Release Prevention Program, Federal Register Vol. 6, No. 11 pages 30818-22 dated June 8, 2001]*

2. If this stationary source, as defined in 7 **DE Admin. Code** 1201 Section 4.0, is not subject to Section 5.0 but is subject or becomes subject to Section 6.0 (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware's Accidental Release Prevention group by the date as specified in Section 6.6.10 and required revisions as specified by Section 6.6.1. *Note: State enforceable only. [Reference: 7 **DE Admin. Code** 1201 as amended March 11, 2006]*

q. Protection of Stratospheric Ozone.

When applicable, this Facility shall comply with the following requirements: *[Reference: 40 CFR Part 82 "**Protection of Stratospheric Ozone**" revised as of 7/1/97 and 7 **DE Admin. Code** 1130 Section 2.0 dated 11/15/93]*

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

   i. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a process that uses a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.

ii. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

iii. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.

iv. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

2. Any person servicing, maintaining, or repairing appliances, except for motor vehicles, shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. In addition, Subpart F applies to refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment.

   i. Persons owning appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156.

   ii. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

   iii. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

   iv. Persons performing maintenance, service, repair, or disposal of appliances must certify with the Administrator pursuant to §82.158 and §82.162.

   v. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152)

   vi. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.

3. Owners/Operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82, Subpart F §82.166.

4. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".

5. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".

   i. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. These systems are regulated under 40 CFR Part 82, Subpart F.

6. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant new New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.

r. **Severability**. The provisions of this permit are severable. If any part of this permit is held invalid, the application of such part to other persons or circumstances and the remainder of this permit shall not be

affected thereby and shall remain valid and in effect. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.6 dated 12/11/00]*

Condition 3- Specific Requirements

a. **Emission Limitations Emission Standards, Operational Limitations, and Operational Standards**. The Owner/Operator shall comply with the limitations and standards detailed in Condition 3 – Table 1 of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.1dated 12/11/00]*

b. **Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping).** The Owner/Operator shall maintain all of the information required under Conditions 3(b)(1) and 3(b)(2) of this permit for a minimum of 5 years from such information's date of record. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.2 dated 12/11/00]*

1.

i. Specific Requirements. The Owner/Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Condition 3(b)(2) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.1 dated 12/11/00, 6.1.3.1 dated 12/11/00, and 6.1.10 dated 12/11/00]*

ii. General Testing Requirements. Upon written request of the Department, the Owner/Operator shall, at the Owner/Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records, and submit reports to the Department on the results of such sampling. *[Reference: 7 **DE Admin. Code** 1117 Section 2.2 dated 7/17/84]*

iii. The Department must observe all stack emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program for the results to be considered for acceptance unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test. *[Reference 7 **DE Admin. Code** 1117 Section 2.2, dated 7/17/84]*

iv. All monitor performance specification testing and stack emissions testing shall require the submission of a "Source Sampling Guidelines and Preliminary Survey Form" which must be found acceptable to the Department at least 30 days prior to the testing. *[Reference 7 **DE Admin. Code** 1120, Section 1.4, dated 12/7/88]*

v. The results of all monitor performance specification testing and stack emission testing shall be submitted to the Department, in triplicate, within 60 days after completion of the testing. *[Reference 7 **DE Admin. Code** 1120, Section 1.4, dated 12/7/88]*

2. General Record Keeping Requirements. The Owner/Operator shall record, at a minimum, all of the following information:

i. If required, for each operating scenario identified in Condition 3 – Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner and/or Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the time at which the operating scenario under which it is operating is changed. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.10 dated 12/11/00]*

ii. The following information to the extent specified in Condition 3 – Table 1 of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1 dated 12/11/00]*

A. The date, place, and time of the sampling or measurements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.1 dated 12/11/00]*

B. The dates analyses were performed. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.2 dated 12/11/00]*

C. The Owner and/or Operator or entity that performed the analyses. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.3 dated 12/11/00]*

D. The analytical techniques or methods used. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.4 dated 12/11/00]*

E. The results of such analyses. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.5 dated 12/11/00]*

F. The operating conditions as existing at the time of sampling or measurement. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1.6 dated 12/11/00]*

iii. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5); a properly signed, contemporaneous operating logs, or other relevant evidence which indicates that: *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.3 dated 12/11/00]*

A. An emergency or malfunction occurred and the causes of the emergency or malfunction. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.3.1 dated 12/11/00]*

B. The facility was at the time of the emergency or malfunction being operating in a prudent and professional manner and in compliance with the generally accepted industry operations and maintenance procedures. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.3.2 dated 12/11/00]*

C. During the period of the emergency or malfunction the Owner and/or Operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.7.3.3 dated 12/11/00]*

iv. A copy of the written notice required by Condition 3(c)(2)(iii) for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

c. Reporting and Compliance Certification Requirements.

1. Specific Reporting/Certification Requirements. The Owner and/or Operator shall comply with the Reporting/Certification Requirements detailed in Condition 3 – Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3) of this permit. Each report that contains any deviations from the terms of Condition 3– Table 1 shall identify the probable cause of the deviations and any corrective actions or preventative measures taken. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3 dated 12/11/00, 6.1.3.3.3.3 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]*

2. General Reporting Requirements.

i. The Owner and/or Operator shall submit to the Department a report of any required monitoring not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each report shall identify any deviations from the monitoring, record keeping, and reporting requirements under this permit; and the probable cause of the deviations; and any corrective actions or preventative measures taken. If no deviations have occurred, such shall be stated in the report. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.1 dated 12/11/00, 6.1.3.3.2 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]*

ii. In addition to the semiannual monitoring reports required under Condition 3(c)(2)(i), the Owner and/or Operator shall submit to the Department supplemental written reports and/or notices identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]*

A. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from

emergency or malfunction conditions shall be reported to the Department within two working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.3.1 dated 12/11/00 and 6.7.3.4 dated 12/11/00]*

B. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.2 dated 12/11/00]*

1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802. *[Reference: 7 **DE Admin. Code** No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*

2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications to the Department may be revoked by the Department upon written notice to the Company and at the Department's sole discretion. *[Reference: 7 **DE Admin. Code** No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]*

C. All emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department in a written report pursuant to Condition 3(c)(2)(1) and/or the specific reporting requirements listed in Condition 3 – Table 1 of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]*

D. Discharges to the atmosphere in excess of any quantity specified in the 7 **DE Admin. Code** 1203 ("**Reporting of a Discharge of a Pollutant or an Air Contaminant**") shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour Environmental Emergency Notification and Complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.3.3.5 dated 12/11/00 and 7 **DE Admin. Code** 1203]*

iii. Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner and/or Operator shall give written notice to the Department and EPA at least seven calendar days before the change is to be made. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

A. The seven day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

B. If less than seven calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Owner and/or Operator shall provide notice to the Department and EPA as soon as possible after learning of the need to make the change, together with the reasons why advance notice could not be given. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

C. The written notice shall include all of the following information: *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

1. The identification of the affected emission units and a description of the change to be made.

2. The date on which the change will occur.

3. Any changes in emissions.

4. Any permit terms and conditions that are affected, including any new applicable requirements.

iv. The Owner and/or Operator shall submit to the Department an annual emissions statement in accordance with 7 **DE Admin. Code** 1117 Section 7.0 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is granted. Such emissions statement shall cover the preceding calendar year. *[Reference: 7 **DE Admin. Code** 1117 Section 7 .0 dated 1/11/93]*

v. If required, the Owner and/or Operator shall submit to the Department a progress report for applicable requirements identified in Condition 5 – Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: *[Reference: 7 **DE Admin. Code** 1130 Sections 5.4.8 dated 11/15/93 and 6.3.4 dated 12/11/00]*

A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.4.1 dated 12/11/00]*

B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.4.2 dated 12/11/00]*

vi. Nothing herein shall relieve the Owner and/or Operator from any reporting requirements under federal, state, or local laws. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.3.3.5 dated 12/11/00]*

3. General Compliance Certification Requirements.

i. Compliance with terms and conditions of this permit shall be certified to the Department not later than the first day of February of each year unless the terms or conditions in Condition 3– Table 1 of this permit require compliance certifications to be submitted more frequently. Such certification shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.1 dated 12/11/00]*

A. The identification of each term or condition of the permit that is the basis of the certification. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.3.1 dated 12/11/00]*

B. The Owner and/or Operator's current compliance status, as shown by monitoring data and other information reasonably available to the Owner and/or Operator. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.3.2 dated 12/11/00]*

C. Such certification shall indicate whether compliance was continuous or intermittent during the covered period. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.3.3 dated 12/11/00]*

D. The methods used for determining the compliance status of the Owner and/or Operator, currently and over the reporting period as required by the monitoring, record keeping, and reporting required under Condition 3. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.3.4 dated 12/11/00]*

E. Such other facts as the Department may require to determine the compliance status of the source. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.3.5 dated 12/11/00]*

ii. Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 2(a) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.5.4 dated 12/11/00]*

iii. Any additional information possessed by the Owner and/or Operator that demonstrates non-compliance with any applicable requirement must also be used as the basis for compliance certifications. *[Reference: 62 FR 8314 dated 2/24/97]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
a. Emission Unit 29: Catalytic Hydrodesulfurizer Trains 29-1 through 29-5 and Process Heaters 29-H-101 and 29-H-2 through 29-H-9; Emission Points 29-1 through 29-4		
1. Particulate Emissions i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference 7 **DE Admin. Code** 1104 Section 2.1 dated 2/1/81]* ii. Operational Limitation: The process heaters 29-H-2 through 29-H-9 and 29-H-101 are subject to the following fuel usage restrictions: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. 29-H-3, 29-H-4, 29-H-5, 29-H-7 and 29-H-9 shall only combust desulfurized RFG. In addition, 29-H-9 may combust process vent gas from 29-D-36, Alky Merox, and Poly Merox. B. 29-H-2 may combust either natural gas or desulfurized RFG. In addition, it may combust process off gas from the Alky Merox, Poly Merox and vent gas from 29-D-36. C. 29-H-6 and 29-H-8 may combust either natural gas or desulfurized RFG. In addition, they may combust process off gas from the ether plant Merichem vapors. D. 29-H-101 may combust either natural gas or desulfurized RFG. In addition, it may combust vapors displaced from benzene storage and loading operations subject to the requirements in Condition 3 - Table 1(ba) of this permit.	iii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* A. Compliance with the emission standard is based on fuel type and quality. B. Compliance with the operational limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H2S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H2S in RFG prior to its being combusted in any fuel burning device. The H2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* v. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator 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 records of	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	the fuel combusted in each unit. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	
2. Sulfur Dioxide (SO2) i. Emission Standards: A. **[RESERVED]** B. The Owner/Operator shall not burn in any fuel gas combustion device any fuel gas including process off-gases from 29-D-36, Alky Merox, Poly Merox, Merichem vapors, and benzene vapors that contain H2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference 7 **DE Admin. Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/17/2000 and 7 **DE Admin. Code** 1108 Section 2.1 dated 12/8/1983]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* A. **[RESERVED]** B. Compliance with Emission Standard (B) shall be based on the H2S CEMS for the RFG. iii. Monitoring/Testing: A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H2S in RFG before it is combusted in any fuel burning device. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H2S in RFG prior to its being combusted in any fuel burning device. The H2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: A. The Owner/Operator shall keep records of all H2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits for at least 5 years. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]*	v. 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
3. Nitrogen Oxides (NO_X) i. Emission Standards: A. For 29-H-101: NO_X emissions shall not exceed those achieved by the installation of either low excess air and low NO_X burner technology or flue gas recirculation technology. *[Reference: 7 **DE Admin. Code** 1112, Section 3.3.1 dated 11/24/93]* B. For Units 29-H-101 and Units 29-H-2 through 29-H-9: NO_X emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. [*Reference: 7 **DE Admin. Code** 1112, Section 3.3.2 dated 11/24/93*] C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Condition 3 - Table 1.j.	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]* A. For 29-H-101: Compliance demonstration with Emission Standard (A) shall be based on the operation and maintenance of the Low NO_X burners in accordance with the manufacturer's specifications. B. For Units 29-H-2 through 29-H-9: Compliance demonstration with Emission Standard (B) shall be by conducting an annual tune up of each unit by qualified personnel. C. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3, Table 1.j for 29-H-101, 29-H-4, 29-H-5, 29-H-6 and 29-H-8 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 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. D. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j for 29-H-2, 29-H-3, 29-H-7 and 29-H-9 shall be based on published NOx emission factors for such source or category of sources or any other method proposed by the Owner/Operator and approved by the Department.	v. 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	iii. Monitoring & Testing: *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* A. For Units 29-H-2 through 29-H-9: Annual tune up required in Compliance Method (B). B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Condition 3 - Table 1.j. iv. Record Keeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOX)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	
4. Visible Emissions Standard: i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Section 2.1 dated 7/17/84]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Visual observations in accordance with paragraph (C) below shall be conducted within one (1) week of the annual tune-up. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]* B. 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 (C) below. 2. If no visible emissions are observed, no	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	further action is required. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3. dated 12/11/00]* C. In accordance with 7 **DE Admin. Code** 1120 Section 1.5.3, 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 & 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]* iv. Record keeping: 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 Sections 6.1.3.1.2 dated 12/11/00]* A. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request.	
ba. **Emission Unit 32**: Benzene Emissions From Benzene Storage Tanks 331-TC-1, 332-TC-1, 570-TC-10; and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (Emission Point 32-1)		
1. Benzene Emissions: i. Emission Standards for Unit 32-H-101 when waste is introduced into the flame zone: A. Process heater 32-H-101 shall reduce benzene emissions to an exit	iii. Compliance Method: *[Reference **APC-81/0832** and 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 dated 12/11/00]* A. Compliance with Emission Standard (A) and Operational Limitation (A) is based upon continuously monitoring the firebox temperature of unit 32-H-101 during all	vi. Reporting Requirement: 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
concentration of not greater than 20 ppmv (dry) corrected to 3 percent O_2 during all benzene loading cycles. *[Reference: 40 CFR Part 63.126(b)(1), 7/1/05 ed.]* B. Unit 32-H-101 shall reduce the inlet emissions of total organic HAP emissions from the storage tanks 331-TC-1, 332-TC-1 and 570-TC-10 by 95 weight percent or greater. *[Reference: 40 CFR 61.271(c) dated 12/14/2000 and 40 CFR Part 63.119(e)(1), 7/1/05 ed.]* ii. Operational Limitations: A. Process Heater 32-H-101 shall be the primary control device for benzene vapors displaced from storage vessels and during loading operations. The waste vent stream shall be introduced into the flame zone of unit 32-H-101 and the minimum firebox temperature for each three (3) hour loading cycle shall not be less than 50°F below 845°F (i.e., 795°F) which was the average firebox temperature recorded during the performance test following completion of construction. *[Reference: **APC-81/0832** Condition No. 11]* B. As an alternative to Operational Limitation A, the benzene vent stream may be introduced with the fuel into process heater 32-H-101 or the alternate control device 29-H-101. [*Reference Reg. No. 30, Section 6(a)(3)(i)(B) dated 12/11/00*] C. The benzene product flow in each rail car loading arm shall be restricted to 155 gallons per minute. The flow rate for simultaneous loading of tank trucks or rail cars shall not exceed a maximum of 620 gallons per minute. *[Reference: **APC-**	benzene loading cycles unless the Owner/Operator is complying with Operational Limitation B. B. Compliance with Emission Standard (B) shall be based on compliance with Compliance Method (A) in addition to continuously monitoring the firebox temperature in Unit 32-H-101 when it is serving as the control device for the closed vent system of the storage tanks unless the Owner/Operator is complying with Operational Limitation B. C. Compliance with Operational Limitation (B) shall be demonstrated by conducting a stack test at the maximum loading rate to demonstrate that pre-mixing the waste in either 32-H-101 or 29-H-101 with the fuel will achieve compliance with the 98% destruction efficiency or exit concentration of 20 ppmvd corrected to 3% O_2. The stack test shall be conducted with each heater used as a control device. D. Compliance with Operational Limitation (C) for rail cars shall be based on flow restrictors sealed by the Division of Weights and Measures. Compliance for tank trucks shall be based on the quantity loaded and the loading time. E. Compliance with Operational Limitation (D) shall be determined by maintaining a log of all periods of loading tanker trucks and railcars. F. Compliance with Operational Limitation (E)(1) shall be based on compliance with Compliance Method (A) above. G. Compliance with Operational Limitation (E)(2) shall be based on record keeping of a log indicating that a DOT test label is present and valid. *[Reference: 40 CFR Part 63.130(e), 7/1/05 ed.]* H. Compliance with Operational Limitation (E)(3)	A. A Notification of Compliance Status (NCS) in accordance with 40 CFR Part 63.152 shall be submitted semi-annually, no later than 60 days after the end of each 6 month period. The 6 month periods for this facility shall end on May 19 and November 19, respectively each year. B. All periods when Unit 29-H-101 is used in place of Unit 32-H-101. This notification may be submitted quarterly. C. Storage vessel reports in accordance with 40 CFR Part 63.122 and transfer operations reports in accordance with 40 CFR Part 63.129. 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]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
81/0832 *Condition 8]* D. Benzene loading operations shall not be carried out simultaneously in railcars and tanker trucks. *[Reference: **APC-81/0832** Condition 5]* E. Benzene loading operations may be carried out only in accordance with all of the following scenarios: 1. When Process Heater 32-H-101 or 29-H-101 are operating properly. *[Reference: **APC-81/0832** Condition 6]* 2. When the tanker trucks or railcars have been connected to the transfer rack's vapor collection system. *[Reference: **APC-81/0832** Condition 14 and 40 CFR 63.126(e) dated 7/1/05]* 3. Each vapor collection system shall be designed and operated such that the organic vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere. *[Reference: **APC-81/0832** Condition No.15]* 4. For each Group 1 transfer rack the owner or operator shall load organic HAP's into only tank trucks and railcars which: a. Have a current certification in accordance with the U.S. Department of Transportation pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars; or b. Have been demonstrated to be vapor-tight within the preceding 12 months, as determined by the procedures in Sec. 63.128(f) of this subpart. Vapor-tight means that the truck or railcar tank will	shall be based on operation of the system according to manufacturer's specifications. I. Compliance with Operational Limitation (E)(4) shall be based upon record keeping. J. Compliance with Operational Limitation (E)(5) shall be based on record keeping. K. Compliance with Operational Limitation (E)(6) shall be based on the LDAR requirement of Table 1.fb.3.ii and record keeping. L. Compliance with Operational Limitation (E)(7) shall be based on compliance with 40 CFR 63.127(d)(2). iv. Monitoring/Testing Requirement: A. The Owner/Operator shall continuously monitor the firebox temperature in Unit 32-H-101 during all benzene loading cycles. *[Reference: **APC-81/0832** Condition 11]* B. For the vapor collection system and storage tanks 331-TC-1, 332-TC-1 and 570-TC-10 the Owner and operator shall: *[Reference: 40 CFR Part 63.148, 7/1/05 ed.]* 1. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. 2. For each fixed roof, cover, and enclosure, the owner or operator shall conduct initial visual inspections and semi-annual visual inspections for visible, audible, or olfactory indications of leaks as specified in 40 CFR Part 63 subpart G §63.133 through 63.137. 3. Leaks, as indicated by visual inspections, shall be repaired as soon as practicable, except as provided in paragraph (iv)(B)(4) below. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected.	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
sustain a pressure change of not more than 750 Pa within 5 minutes after it is pressurized to a minimum of 4,500 Pa. *[Reference 40 CFR 63.126(e) dated 7/1/05]* 5. The owner or operator of a transfer rack subject to the provisions of this subpart shall load organic HAP's to only tank trucks or railcars equipped with vapor collection equipment that is compatible with the transfer rack's vapor collection system. *[Reference 40 CFR 63.126(f) dated 7/1/05]* 6. The owner or operator of a transfer rack subject to the provisions of this subpart shall ensure that no pressure-relief device in the transfer rack's vapor collection system or in the organic hazardous air pollutants loading equipment of each tank truck or railcar shall begin to open during loading. Pressure relief devices needed for safety purposes are not subject to this paragraph. *[Reference 40 CFR 63.126(h) dated 7/1/05]* 7. Each valve in the vent system that would divert the vent stream to the atmosphere, either directly or indirectly, shall be secured in a non-diverting position using a carseal or a lock-and-key type configuration, or shall be equipped with a flow indicator. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief devices needed for safety purposes is not subject to this paragraph. *[Reference 40 CFR*	4. Delay of repair for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown. 5. For each vapor collection system or closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall: a. Install, calibrate, maintain, and operate a flow indicator that determines whether vent stream flow is present at least once every 15 minutes. Records shall be generated as specified in §63.118(a)(3). The flow indicator shall be installed at the entrance to any bypass line; or b. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. c. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph. 6. Any parts of the vapor collection system,	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
63.126(i) dated 7/1/05]	closed vent system, fixed roof, cover, or enclosure that are designated as unsafe to inspect are exempt from the inspection requirements of this section if: a. The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger; and b. The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.1 dated 12/11/00]* C. Conduct compliance stack testing of 32-H-101 and 29-H-101 in accordance with a Department approved protocol. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.1dated 12/11/00]* v. Record Keeping: 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. Continuous records of the firebox temperature monitored during all benzene loading cycles. *[Reference: **APC-81/0832** Condition No.12]* B. A log identifying the process heater operating as the control device. *[Reference: **APC-81/0832** Condition No.12]* C. Storage vessel records in accordance with Section 63.123 for all storage tanks at the Tetra unit. *[Reference: **APC-81/0832** Condition No.12]* D. Log showing periods of tanker truck and railcar loading. *[Reference: **APC-81/0832** Condition No.12]*	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	E. The Company shall record the information specified as follows: 1. Identification of all parts of the vapor collection system, closed vent system, fixed roof cover, or enclosure that are designated as unsafe to inspect and therefore exempt from (iv)(B)(1) and (iv)(B)(2) above. 2. Identification of all parts of the vapor collection system, closed vent system, fixed roof cover, or enclosure that are designated as difficult to inspect, and therefore exempt from (iv)(B)(1) and (iv)(B)(2) above, with an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. 3. For each vapor collection system or closed vent system that contains by-pass lines that could divert a vent stream away from the control device to the atmosphere, the Company shall keep a record of the following: a. Where a flow indicator is used, hourly records of whether the flow indicator specified in (iv)(B)(5)(a) was operating and whether a diversion was detected at any time during the hour as well as records of all times of all periods when the vent stream is diverted or the flow indicator is not operating; b. Where a seal mechanism is used to comply with (iv)(B)(5)(b) the Company shall record whether the monthly visual inspection of the seals or closure mechanisms has been done and record when the seal mechanism is broken, the bypass line valve position has changed, or the key for the lock-and-key has	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	been checked out, and records of any car seal that has broken; 4. For each visual inspection conducted in accordance with (iv)(B)(1) & (iv)(B)(2) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. *[Reference 7 DE Admin Code 1130 Section 6.1.3.1.2 dated 12/11/00]*	
bb. Emission Unit 32: Volatile Organic Compound (VOC) Emissions from Benzene Storage tanks 331-TC-1, 332-TC-1, 570-TC-10; and the Benzene Transfer Facility at the Tetra Unit; and the Transfer Rack (Emission Point 32-1) (Volatile Organic Compounds (VOCs) SOCMI HON Conditions for Equipment Leaks)		
1. General Standards: i. Emission Standard: A. The provisions apply to the pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and control devices or closed vent systems that operate in HAP service 300 hours or more during the calendar year. *[Reference: 40 CFR 63, Subpart H, §63.160(a) dated 7/1/05]* B. Service definitions: 1. In gas/vapor service means that a piece of equipment in organic hazardous air pollutant service contains a gas or vapor at operating conditions. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/05]* 2. In heavy liquid service means that a piece of equipment in organic hazardous air pollutant service is not in gas/vapor service or in light liquid service. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/05]* 3. In light liquid service means that a piece of equipment in organic hazardous air pollutant service contains a liquid that	iii. Compliance Method: Determination of whether such operation and maintenance procedures required by the Operational Limitations are being used will be based on information available to the Department which may include, but not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan), review of operation and maintenance records, and inspection of the source. *[Reference 40 CFR 63.6(e)(1)(i) dated 7/1/05]* iv. Monitoring/Testing: A. Each piece of equipment in a process unit to which this section applies shall be identified such that it can be distinguished readily from equipment that is not subject to this section. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification. *[Reference: 40 CFR 63, Subpart H, §63.162(c) dated 7/1/05]* B. Equipment that is in vacuum service is excluded	vi. Reporting Requirement: 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. Periodic startup, shutdown, and malfunction reports. If actions taken by the Owner/Operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, the Owner/Operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the Owner/Operator or other responsible

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meets the following conditions: a. The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 deg. C, b. The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 deg. C is equal to or greater than 20 percent by weight of the total process stream, and c. The fluid is a liquid at operating conditions. Note: Vapor pressures may be determined by the methods described in 40 CFR 60, Subpart VV, §60.485(e)(1) dated 7/1/00. *[Reference: 40 CFR 63, Subpart H, §63.161 dated 7/1/00]* ii. Operational Limitations: A. Operation and maintenance: 1. At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be	from the requirements of this section. *[Reference: 40 CFR 63, Subpart H, §63.162(d) dated 7/1/05]* C. **[RESERVED]** D. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (ii)(B) of this section), review of operation and maintenance records, and inspection of the source. *[Reference: 40 CFR 63, Subpart A, §63.6(e) dated 7/1/00]* 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 7 **DE Admin Code** 1130.6.1.3 dated 12/11/00]* B. **[RESERVED]** C. The Owner/Operator must maintain a current SSM plan and must make the plan available upon request for inspection and copying by the Department. In addition, if the SSM plan is subsequently revised, the Owner/Operator must maintain each previous (i.e., superseded) version of the SSM plan, and must make each such previous version available for inspection and copying by the Administrator, for a period of 5 years after each revision to the plan. The Administrator may at any time request in	official who is certifying its accuracy, that shall be submitted to the Department semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by the January 30 and July 30 of each year for the periods of July 1 - December 31 and January 1 - June 30 respectively. This report may be submitted simultaneously with the periodic report required by Section 12(v) of this unit. *[Reference: 40 CFR 63, Subpart A, §63.10(d) dated 7/1/00]* C. Immediate startup, shutdown, and malfunction reports. Any time an action taken by an Owner/Operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the Owner/Operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Department within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the Owner/Operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction

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required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the Owner/Operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. 2. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (B) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the Owner/Operator must comply by minimizing emissions during such a startup, shutdown, or malfunction event consistent with safety and good air pollution control practices. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(1) dated 7/1/05]* B. Startup, shutdown, and malfunction (SSM) plan. 1. The Owner/Operator must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The purpose of the startup, shutdown, and malfunction plan is to: a. Ensure that, at all times, the Owner/Operator operates and maintains each affected source, including	writing that the Owner/Operator submit a copy of any SSM plan (or a portion thereof) which is maintained at the affected source or in the possession of the Owner/Operator. Upon receipt of such a request, the Owner/Operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the Owner/Operator submit a particular SSM plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The Owner/Operator may elect to submit the required copy of any SSM plan to the Administrator in an electronic format. If the Owner/Operator claims that any portion of such a SSM plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(3)(v) dated 7/1/05]* D. General recordkeeping requirements: 1. The Owner/Operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. 2. The Owner/Operator of an affected source	plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. *[Reference: 40 CFR 63, Subpart A, §63.10(d) dated 7/1/00]* vii. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
associated air pollution control equipment, in a manner which satisfies the general duty to minimize emissions established by Operational Limitation (A)(1) of this section; b. Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and c. Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). 2. During periods of startup, shutdown, and malfunction, the Owner/Operator must operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (B)(1) of this section. 3. When actions taken by the Owner/Operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the Owner/Operator shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that	subject to the provisions of this part shall maintain relevant records for such source of: a. The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); b. The occurrence and duration of each malfunction of the air pollution control equipment; c. All maintenance performed on the air pollution control equipment; d. Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; e. All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
event. The Owner/Operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the startup, shutdown and malfunction plan in the semiannual startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5). 4. To satisfy the requirements of this section to develop an SSM plan, the Owner/Operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(3)(vi) dated 7/1/05]* 5. Based on the results of a determination made under 40 CFR 63.6(e)(2) of this section, the Department may require that an Owner/Operator of an affected source make changes to the SSM plan for that source. The Department may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Department finds that the plan: a. Does not address a startup, shutdown, or malfunction event that has occurred; b. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions; c. Does not provide adequate procedures	recordkeeping, in order to minimize the recordkeeping burden for conforming events); f. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); g. All results of performance tests, and opacity and visible emission observations; h. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations; i. All documentation supporting notifications of compliance status. *[Reference: 40 CFR 63, Subpart A, §63.10(b) dated 7/1/00]*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable; or d. Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in §63.2. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(3)(vii) dated 7/1/05]* 6. The Owner/Operator may periodically revise the startup, shutdown, and malfunction plan as necessary to satisfy the requirements of this section or to reflect changes in equipment or procedures at the affected source. Unless the Department provides otherwise, the Owner/Operator may make such revisions to the SSM plan without prior approval. However, each revision to an SSM plan must be reported in the semiannual report required by §63.10(d)(5). If the SSM plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the Owner/Operator developed the plan, the Owner/Operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment. In the event that the Owner/Operator makes any revision to the SSM plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission		

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
limit, work practice requirement in a standard established under this part, the revised plan shall not take effect until after the Owner/Operator has provided a written notice describing the revision to the Department. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(3)(viii) dated 7/1/05]* 7. The Owner/Operator must adopt a SSM plan which conforms to the provisions of §63.6 and the Owner/Operator must operate and maintain the source in accordance with the procedures specified in the current SSM plan. Any revisions made to the SSM plan in accordance with the procedures established by §63.6 shall not be deemed to constitute permit revisions under 40 CFR Part 70 and 71. None of the procedures specified by the SSM plan shall be deemed to fall within the permit shield provision in section 504(f) of the Act. *[Reference: 40 CFR 63, Subpart A, §63.6(e)(3)(ix) dated 7/1/05]*		
2. **Pumps in Light Liquid Service.** i. Emission Standard: The Owner/Operator shall monitor and repair each pump that is in light liquid service according to the provisions of this section. *[Reference: 40 CFR 63, Subpart H, §63.163(a) dated 7/1/05]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator of a process unit subject to this subpart shall monitor each pump monthly to detect leaks by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00 and shall comply with the requirements of paragraphs (A) through (C) of this section, except as provided in paragraphs (D) through (H) of this section. 1. The instrument reading, as determined by	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	the method specified in 40 CFR 63.180(b), that defines a leak is 1,000 parts per million. 2. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.163(b) dated 7/1/00]* B. Leak Repair 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.163(C)(3) or Section 9 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable: a. Tightening of packing gland nuts. b. Ensuring that the seal flush is operating at design pressure and temperature. 3. Repair is not required unless an instrument reading of 2,000 parts per million or greater is detected at the pump. *[Reference: 40 CFR 63, Subpart H, §63.163(c) dated 7/1/00]* C. Pump Quality Improvement: 1. If calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the Owner/Operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63, Subpart H,	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	§63.176 dated 7/1/00. 2. The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only. 3. Percent leaking pumps shall be determined by the following equation: $\%P_L=((P_L-P_S)/(P_T-P_S))X100$ where, $\%P_L$ = Percent leaking pumps P_L = Number of pumps found leaking P_T = Total number of pumps in organic HAP service, including those meeting the criteria of paragraphs (D) and (E) of this section. P_S = Number of pumps leaking within 1 month of start-up during the current monitoring period. *[Reference: 40 CFR 63, Subpart H, §63.163(d) dated 7/1/00]* D. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraphs (A) through (C) of this section, provided the following requirements are met: 1. Each dual mechanical seal system is: a. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or b. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	connected by a closed-vent system to a control device that complies with the requirements of Section 10 of this unit; or c. Equipped with a closed-loop system that purges the barrier fluid into a process stream. 2. The barrier fluid is not in light liquid service. 3. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. 4. Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. a. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00 to determine if there is a leak of organic HAP in the barrier fluid. b. If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected. 5. Each sensor as described in paragraph (D)(3) of this section is observed daily or is equipped with an alarm. 6. Other leak determinations: a. The Owner/Operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. b. If indications of liquids dripping from	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	the pump seal exceed the criteria established in paragraph (D)(6)(a) of this section, or if, based on the criteria established in paragraph (D)(6)(a) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected. c. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit. d. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.163(e) dated 7/1/00]* E. Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of paragraphs (A) and (B) of this section. *[Reference: 40 CFR 63, Subpart H, §63.163(f) dated 7/1/00]* F. Any pump equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of Section 10 of this unit is exempt from the requirements of paragraphs (A) through (D) of this section. *[Reference: 40 CFR 63, Subpart H, §63.163(g) dated 7/1/00]* G. If more than 90 percent of the pumps at a process unit meet the criteria in either paragraph (D) or (E) of this section, the process unit is exempt from the requirements of paragraph (C) of this section. *[Reference: 40 CFR 63, Subpart H, §63.163(i) dated 7/1/00]*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	H. Any pump that is designated, as described as an unsafe-to-monitor pump is exempt from the requirements of paragraphs (A) through (D) of this section if: 1. The Owner/Operator of the pump determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (A) through (C) of this section; and 2. The Owner/Operator of the pump has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. *[Reference: 40 CFR 63, Subpart H, §63.163(j) dated 7/1/00]* I. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated 7/1/00]* 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. The following information pertaining to all equipment in each process unit subject to this section shall be recorded: 1. A list of identification numbers for equipment that the Owner/Operator elects to equip with a closed-vent system and control device, under the provisions of paragraph (iii)(F) of this section. 2. The following information shall be recorded for each dual mechanical seal system: a. Design criteria required in paragraph (iii)(D)(6)(a) of this section and an explanation of the design criteria; and b. Any changes to these criteria and the reasons for the changes. 3. The following information pertaining to all pumps subject to the provisions of paragraph (iii)(H) of this section shall be recorded: a. Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	equipment. b. A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. c. A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. For visual inspections of equipment subject to the provisions of this section, the Owner/Operator shall document that the inspection was conducted and the date of the inspection. The Owner/Operator shall maintain records as specified in paragraph (D) of this section for leaking equipment identified in this inspection. *[Reference: 40 CFR 63, Subpart H, §63.181(c) dated 7/1/00]* D. When a leak is detected, information shall be recorded and kept for 5 years as required by Section 12(iv)(C) of this unit. *[Reference: 40 CFR Part 63, Subpart 63.181(d), dated 7/1/2000]*	
3. **Compressors:** i. Operational Limitations: A. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in paragraphs (iii)(E) and (iii)(F) of this section. *[Reference: 40 CFR 63, Subpart H, §63.164(a) dated 7/1/00]* B. Each compressor seal system as required in paragraph (A) of this section shall be: 1. Operated with the barrier fluid at a pressure that is greater than the	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Each barrier fluid system as described in paragraphs (i)(A) through (i)(C) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. *[Reference: 40 CFR 63, Subpart H,*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
compressor stuffing box pressure; or 2. Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of Section 10 of this unit; or 3. Equipped with a closed-loop system that purges the barrier fluid directly into a process stream. *[Reference: 40 CFR 63, Subpart H, §63.164(b) dated 7/1/00]* C. The barrier fluid shall not be in light liquid service. *[Reference: 40 CFR 63, Subpart H, §63.164(c) dated 7/1/00]*	*§63.164(d) dated 7/1/00]* B. Leak Observations: 1. Each sensor as required in paragraph (A) of this section shall be observed daily or shall be equipped with an alarm. 2. The Owner/Operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. *[Reference: 40 CFR 63, Subpart H, §63.164(e) dated 7/1/00]* C. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under paragraph (B)(2) of this section, a leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.164(f) dated 7/1/00]* D. Leak Repair: 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.164(g) dated 7/1/00]* E. A compressor is exempt from the requirements of this section if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft seal back to a process or a fuel gas system or to a control device that complies with the requirements of Section 10 of this unit. *[Reference: 40 CFR 63, Subpart H, §63.164(h) dated 7/1/00]* F. Any compressor that is designated, as described in paragraph (iv)(B)(2) of this unit, to	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	operate with an instrument reading of less than 500 parts per million above background, is exempt from the requirements of this section if the compressor: 1. Is demonstrated to be operating with an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63, Subpart H, §63.180(c) dated 7/1/00; and 2. Is tested for compliance with paragraph (F)(1) of this section initially upon designation, annually, and at other times requested by the Department. *[Reference: 40 CFR 63, Subpart H, §63.164(i) dated 7/1/00]* G. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section 11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	7/1/00] 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. The following information pertaining to all equipment in each process unit subject to this section shall be recorded: 1. A list of identification numbers for equipment that the Owner/Operator elects to equip with a closed-vent system and control device, under the provisions of paragraph (iii)(E) of this section. 2. A list of identification numbers for compressors that the Owner/Operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of paragraph (iii)(F) of this section. 3. The following information shall be recorded for each dual mechanical seal system: a. Design criteria required in paragraph (iii)(B)(2) of this section and an explanation of the design criteria; and b. Any changes to these criteria and the reasons for the changes. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. When a leak is detected, information shall be recorded and kept for 5 years as required by	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	Section 12(iv)(C) of this unit. *[Reference: 40 CFR Part 63, Subpart 63.181(d), dated 7/1/2000]* D. The dates and results of each compliance test required for compressors subject to the provisions in paragraph (iii)(F) of this section. The results shall include: 1. The background level measured during each compliance test. 2. The maximum instrument reading measured at each piece of equipment during each compliance test. *[Reference: 40 CFR 63, Subpart H, §63.181(f) dated 7/1/00]*	
4. **Pressure Relief Devices in Gas/Vapor Service.** i. Emission Standard: Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided in paragraph (iii)(B) of this section, as measured by the method specified in 40 CFR 63, Subpart H, §63.180(c) dated 7/1/00. *[Reference: 40 CFR 63, Subpart H, §63.165(a) dated 7/1/00]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Reseating Valves: 1. After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section 9 of this unit. 2. No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63, Subpart H,	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	§63.180(c) dated 7/1/00. *[Reference: 40 CFR 63, Subpart H, §63.165(b) dated 7/1/00]* B. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 10 of this unit is exempt from the requirements of paragraphs (i) and (iii)(A) of this section. *[Reference: 40 CFR 63, Subpart H, §63.165(c) dated 7/1/00]* C. Rupture Disks: 1. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (i) and (iii)(A), provided the Owner/Operator complies with the requirements in paragraph (C)(2). 2. After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section 9 of this unit. *[Reference: 40 CFR 63, Subpart H, §63.165(d) dated 7/1/00]* 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	B. The following information pertaining to all equipment in each process unit subject to this section shall be recorded: 1. A list of identification numbers for equipment that the Owner/Operator elects to equip with a closed-vent system and control device, under the provisions of paragraph (iii)(B) of this section. 2. A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of paragraph (iii)(A) of this section. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. When a leak is detected, information shall be recorded and kept for 5 years as required by section 12(v)(C) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]*	
5. **Sampling Connection Systems.** i. Operational Standards: A. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. Gases displaced during filling of the sample container are not required to be collected or captured. *[Reference: 40 CFR 63, Subpart H, §63.166(a) dated 7/1/00]* B. Each closed-purge, closed-loop, or closed-vent system as required in paragraph (A) of this section shall: 1. Return the purged process fluid directly to the process line; or 2. Collect and recycle the purged process fluid to a process; or 3. Be designed and operated to capture and transport the purged process fluid to a control device that complies with the requirements of Section 10 of this unit; or 4. Collect, store, and transport the purged process fluid to a system or facility	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: None. 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
identified in paragraph (B)(4)(a), (b), or (c) of this section. a. A waste management unit, as defined in 40 CFR 63, Subpart G, §63.111 dated 7/1/00, if the waste management unit is subject to, and operated in compliance with the provisions of subpart G applicable to group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in Table 9 of subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G applicable to group 1 wastewater streams provided the facility has an NPDES permit or sends the wastewater to an NPDES permitted facility. b. A treatment, storage, or disposal facility subject to regulation under 40 CFR parts 262, 264, 265, or 266, all dated 7/1/00; or c. A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261 dated 7/1/00. *[Reference: 40 CFR 63, Subpart H, §63.166(b) dated 7/1/00]* C. In-situ sampling systems and sampling systems without purges are exempt from the requirements of Operational Standards (A) and (B). *[Reference: 40 CFR 63, Subpart H, §63.166(c) dated 7/1/00]*	B. When a leak is detected, information shall be recorded and kept for 5 years as required by section 12(C) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]*	
6. **Open-ended Valves or Lines.** i. Operational Standard: A. Equipment Requirements:	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by	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

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
1. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in Operational Standards (D) and (E). 2. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair. *[Reference: 40 CFR 63, Subpart H, §63.167(a) dated 7/1/00]* B. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. *[Reference: 40 CFR 63, Subpart H, §63.167(b) dated 7/1/00]* C. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Operational Standard (A) at all other times. *[Reference: 40 CFR 63, Subpart H, §63.167(c) dated 7/1/00]* D. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of Operational Standards (A), (B) and (C). *[Reference: 40 CFR 63, Subpart H, §63.167(d) dated 7/1/00]* E. Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in Operational Standards (A) through (C) are exempt from the requirements of Operational Standards (A)	adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: None. iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
through (C). *[Reference: 40 CFR 63, Subpart H, §63.167(e) dated 7/1/00]*		
7. **Valves in Gas/Vapor Service and in Light Liquid Service.** i. Emission Standard: The Owner/Operator shall monitor and repair valves that are either in gas service or in light liquid service according to the provisions of this section. *[Reference: 40 CFR 63, Subpart H, §63.168(a) dated 7/1/00]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator of a source subject to this subpart shall monitor all valves, except as provided in paragraphs (F) and (G) of this section, at the intervals specified in paragraph (B) of this section and shall comply with all other provisions of this section, except as provided in Section 9 of this unit. 1. The valves shall be monitored to detect leaks by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00. 2. The instrument reading that defines a leak in each phase of the standard is 500 parts per million or greater. *[Reference: 40 CFR 63, Subpart H, §63.168(b) dated 7/1/00]* B. The Owner/Operator shall monitor valves for leaks at the intervals specified below: 1. At process units with 2 percent or greater leaking valves, calculated according to paragraph (C) of this section, the Owner/Operator shall monitor each valve once per month or implement a Quality Improvement program for valves that comply with the requirements of §63.175(d) and (e) and monitor on a quarterly basis. 2. At process units with less than 2 percent leaking valves, the Owner/Operator shall monitor each valve once each quarter,	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	except as provided in paragraphs (B)(3) and (B)(4) of this section. 3. At process units with less than 1 percent leaking valves, the Owner/Operator may elect to monitor each valve once every 2 quarters. 4. At process units with less than 0.5 percent leaking valves, the Owner/Operator may elect to monitor each valve once every 4 quarters. *[Reference: 40 CFR 63, Subpart H, §63.168(d) dated 7/1/00]* C. Calculating Leaking Valves: 1. Percent leaking valves at a process unit shall be determined by the following equation: **$\%V_L=(V_L/(V_T+V_C))$ x 100** where: $\%V_L$= Percent leaking valves as determined through periodic monitoring. V_L= Number of valves found leaking excluding non-repairables as provided in paragraph (C)(3)(a) of this section. V_T= Total valves monitored, in a monitoring period excluding valves monitored as required by (D)(3) of this section. V_C= Optional credit for removed valves=0.67 x net number (i.e., total removed-total added) of valves in organic HAP service removed from process unit after October 24, 1994 or after the date of initial startup for new sources. If credits are not taken,	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	then V_C=0. 2. For use in determining monitoring frequency, as specified in paragraph (B) of this section, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs. 3. Non-repairable valves: a. Non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable and as required to comply with paragraph (C)(3)(b) of this section. Otherwise, a number of non-repairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods. b. If the number of non-repairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of non-repairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves. *[Reference: 40 CFR 63, Subpart H, §63.168(e) dated 7/1/00]*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	D. Leak repair: 1. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 3 – Table 1.bb.9 (Delay of Repair). 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. 3. When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. a. The monitoring shall be conducted as specified in 40 CFR 63, Subpart H, §63.180 (b) and (c) dated 7/1/00, as appropriate, to determine whether the valve has resumed leaking. b. Periodic monitoring required by paragraphs (A) and (B) of this section may be used to satisfy the requirements of this paragraph (D)(3) if the timing of the monitoring period coincides with the time specified in this paragraph (D)(3). Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph (D)(3), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph (D)(3). c. If a leak is detected by monitoring that is conducted pursuant to paragraph (D)(3) of this section, the Owner/Operator shall follow the following provisions to determine whether that valve must be counted	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	as a leaking valve for purposes of paragraph (C) of this subpart. i. If the Owner/Operator elected to use periodic monitoring required by paragraphs (A) and (B) of this section to satisfy the requirements of paragraph (D)(3) of this section, then the valve shall be counted as a leaking valve. ii. If the Owner/Operator elected to use other monitoring, prior to the periodic monitoring required by paragraphs (A) and (B), to satisfy the requirements of paragraph (D)(3), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking. *[Reference: 40 CFR 63, Subpart H, §63.168(f) dated 7/1/00]* E. First attempts at repair include, but are not limited to, the following practices where practicable: 1. Tightening of bonnet bolts, 2. Replacement of bonnet bolts, 3. Tightening of packing gland nuts, and 4. Injection of lubricant into lubricated packing. *[Reference: 40 CFR 63, Subpart H, §63.168(g) dated 7/1/00]* F. Any valve that is designated as unsafe-to-monitor is exempt from the requirements of paragraphs (A) through (D) of this section if: 1. The Owner/Operator determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	complying with paragraphs (A) and (B) of this section; and 2. The Owner/Operator has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable. *[Reference: 40 CFR 63, Subpart H, §63.168(h) dated 7/1/00]* G. Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of paragraphs (A) and (B) of this section if: 1. The Owner/Operator determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner; 2. The process unit within which the valve is located is an existing source or the Owner/Operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor; and 3. The Owner/Operator follows a written plan that requires monitoring of the valve at least once per calendar year. *[Reference: 40 CFR 63, Subpart H, §63.168(i) dated 7/1/00]* H. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section 11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated 7/1/00]* iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. The following information pertaining to all equipment in each process unit subject to this section shall be recorded: 1. A schedule for monitoring valves subject to the provisions of paragraph (iii)(B) of this section. 2. The following information pertaining to all valves subject to the provisions of paragraphs (iii)(F) and (G) of this section shall be recorded: a. Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	equipment. b. A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. 3. A list of valves removed from and added to the process unit, as described in paragraph (iii)(C)(1) of this section, if the net credits for removed valves is expected to be used. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. When a leak is detected, information shall be recorded and kept for 5 years as required by section 12(iv)(C) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]*	
8. **Pumps, Valves, Connectors, and Agitators in Heavy Liquid Service; Instrumentation Systems; and Pressure Relief Devices in Liquid Service.** i. Emission Standard: The Owner/Operator shall monitor and repair pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service according to the provisions of this section. *[Reference: 40 CFR 63, Subpart H, §63.169(a) dated 7/1/00]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00, if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in paragraphs (C) and (D) of this section, it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00. *[Reference: 40 CFR*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	63, Subpart H, §63.169(a) dated 7/1/00] B. If an instrument reading of 10,000 parts per million or greater for agitators, 2,000 parts per million or greater for pumps, or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.169(b) dated 7/1/00]* C. Leak Repair: 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit. 2. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. 3. For equipment identified in paragraph (A) of this section that is not monitored by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00, repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure. *[Reference: 40 CFR 63, Subpart H, §63.169(c) dated 7/1/00]* D. First attempts at repair include, but are not limited to, the practices described under paragraphs 2(iii)(B)(2) and 7(iii)(E) of this unit, for pumps and valves, respectively. *[Reference: 40 CFR 63, Subpart H, §63.169(d) dated 7/1/00]* E. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section 11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated 7/1/00]* 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. The following information pertaining to all equipment in each process unit subject to this section shall be recorded: 1. Identification of instrumentation systems subject to the provisions of this subpart. 2. Individual components in an instrumentation system need not be identified.	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00] C. The dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in paragraphs (i)(A) and (iii)(A) of this section. The results shall include: 1. The background level measured during each compliance test. 2. The maximum instrument reading measured at each piece of equipment during each compliance test. *[Reference: 40 CFR 63, Subpart H, §63.181(f) dated 7/1/00]* D. Owner/Operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (C)(1) or (C)(2) of this section, as provided in paragraph (C)(3) of this section. 1. Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service. 2. When requested by the Department, demonstrate that the piece of equipment or process is in heavy liquid service. 3. A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge. *[Reference: 40 CFR 63, Subpart H, §63.181(i) dated 7/1/00]*	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
9. **Delay of Repair.** i. Operational Standard: A. Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown. *[Reference: 40 CFR 63, Subpart H, §63.171(a) dated 12/14/00]* B. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service. *[Reference: 40 CFR 63, Subpart H, §63.171(b) dated 7/1/00]* C. Delay of repair for valves, connectors, and agitators is also allowed if: 1. The Owner/Operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and 2. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 10 of this unit. *[Reference: 40 CFR 63, Subpart H, §63.171(c) dated 7/1/00]* D. Delay of repair for pumps is also allowed if: 1. Repair requires replacing the existing seal design with a new system that the Owner/Operator has determined under the provisions of 40 CFR 63, Subpart H, §63.176(d) dated 7/1/00 will provide better performance or: a. A dual mechanical seal system that meets the requirements of Section (2)(iii)(D) of this unit,	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: None required for this section. iv. Recordkeeping: All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
b. A pump that meets the requirements of Section (2)(iii)(E) of this unit, or c. A closed-vent system and control device that meets the requirements of Section (2)(iii)(F) of this unit; and 2. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. *[Reference: 40 CFR 63, Subpart H, §63.171(d) dated 7/1/00]* E. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown. *[Reference: 40 CFR 63, Subpart H, §63.171(e) dated 7/1/00]*		
10. **Closed-vent Systems and Control Devices.** i. Operational Standards: A. Owners or operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section. *[Reference: 40 CFR 63, Subpart H, §63.172(a) dated 7/1/00]* B. Recovery or recapture devices (e.g., condensers and absorbers) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. *[Reference: 40 CFR 63, Subpart H, §63.172(b)*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Except as provided in paragraphs (F) and (G) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (A)(1) and (A)(2) of this section. 1. If the closed-vent system is constructed of hard-piping, the Owner/Operator shall: a. Conduct an initial inspection according	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
dated 7/1/00] C. Enclosed combustion devices shall be designed and operated to reduce the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 deg. C. *[Reference: 40 CFR 63, Subpart H, §63.172(c) dated 7/1/00]* D. Flares used to comply with this subpart shall comply with the requirements of 40 CFR 63, Subpart A, §63.11(b) dated 7/1/00. (Covered as part of Unit 12.) *[Reference: 40 CFR 63, Subpart H, §63.172(d) dated 7/1/00]* E. Owners or operators of control devices that are used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their design. *[Reference: 40 CFR 63, Subpart H, §63.172(e) dated 7/1/00]* F. Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the provisions of this subpart, such system or control device shall be operating. *[Reference: 40 CFR 63, Subpart H, §63.172(m) dated 7/1/00]*	to the procedures in paragraph (B) of this section, and b. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks. 2. If the vapor collection system or closed-vent system is constructed of duct work, the Owner/Operator shall: a. Conduct an initial inspection according to the procedures in paragraph (B) of this section, and b. Conduct annual inspections according to the procedures in paragraph (B) of this section. *[Reference: 40 CFR 63, Subpart H, §63.172(f) dated 7/1/00]* B. Each closed-vent system shall be inspected according to the procedures in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00 of this subpart. *[Reference: 40 CFR 63, Subpart H, §63.172(g) dated 7/1/00]* C. Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in paragraph (D) of this section. 1. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. 2. Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in paragraph (D) of this section. *[Reference: 40 CFR 63, Subpart H, §63.172(h) dated 7/1/00]* D. Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	Owner/Operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. *[Reference: 40 CFR 63, Subpart H, §63.172(i) dated 7/1/00]* E. For each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the Owner/Operator shall comply with the provisions of either paragraph (E)(1) or (E)(2) of this section, except as provided in paragraph (E)(3) of this section. 1. Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63, Subpart G, §63.118(a)(3) dated 7/1/00. The flow indicator shall be installed at the entrance to any bypass line; or 2. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. 3. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph. *[Reference: 40 CFR 63, Subpart H, §63.172(j) dated 7/1/00]* F. Any parts of the closed-vent system that are designated as unsafe to inspect are exempt	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	from the inspection requirements of paragraphs (A)(1) and (A)(2) of this section if: 1. The Owner/Operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (A)(1) or (A)(2) of this section; and 2. The Owner/Operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually. *[Reference: 40 CFR 63, Subpart H, §63.172(k) dated 7/1/00]* G. Any parts of the closed-vent system that are designated as difficult to inspect are exempt from the inspection requirements of paragraphs (A)(1) and (a)(2) of this section if: 1. The Owner/Operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2. The Owner/Operator has a written plan that requires inspection of the equipment at least once every 5 years. *[Reference: 40 CFR 63, Subpart H, §63.172(l) dated 7/1/00]* H. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section 11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated 7/1/00]* iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. When a leak is detected, information shall be recorded and kept for 5 years as required by section 12(C) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]* C. The Owner/Operator shall maintain records of the information specified in paragraphs (C)(1) through (C)(3) of this section for closed-vent systems and control devices. The records specified in paragraph (C)(1) of this section shall be retained for the life of the equipment. The records specified in paragraphs (C)(2) and (C)(3) of this section shall be retained for 5 years. 1. The following design specifications and	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	performance demonstrations: a. Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. b. The dates and descriptions of any changes in the design specifications. c. The flare design (i.e., steam-assisted, air-assisted, or non-assisted) and the results of the compliance demonstration required by §63.11(b). d. A description of the parameter or parameters monitored, as required in paragraph (i)(E) of this unit, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. 2. Records of operation of closed-vent systems and control devices, as specified in paragraphs (C)(2)(a) through (C)(2)(c) of this section. a. Dates and durations when the closed-vent systems and control devices required in sections 2 through 5 of this unit are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame. b. Dates and durations during which the monitoring system or monitoring device is inoperative. c. Dates and durations of start-ups and shutdowns of control devices required in sections 2 through 5 of this unit. 3. Records of inspections of closed-vent	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	systems, as specified in paragraphs (C)(3)(a) and (C)(3)(b) of this section. a. For each inspection conducted in accordance with the provisions of paragraphs (iii)(A)(1) and (2) of this section during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. b. For each inspection conducted in accordance with the provisions of paragraphs (iii)(A)(1) and (2) of this section during which leaks were detected, the information specified in section 11(C) of this unit shall be recorded. *[Reference: 40 CFR 63, Subpart H, §63.181(g) dated 7/1/00]*	
11. **Connectors in Gas/vapor Service and in Light Liquid Service.** i. Emission Limitation: The Owner/Operator shall monitor all connectors in gas/vapor service and in light liquid service according to the provisions of this section. *[Reference: 40 CFR 63, Subpart H, §63.174(a) dated 7/1/00]*	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator shall monitor all connectors in gas/vapor and light liquid service, except as provided in paragraphs (E) through (G) of this section, at the intervals specified in paragraph (B) of this section. 1. The connectors shall be monitored to detect leaks by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00. 2. If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.174(a) dated*	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. Other reporting requirements are covered under Condition 3 - Table 1(bb)(12). vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	7/1/00] B. The Owner/Operator shall monitor for leaks at the frequencies specified in paragraphs (B)(1) through (B)(5) of this section except as provided in paragraph (C)(2) of this section. 1. Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period. 2. Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. The Owner/Operator may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period. 3. If the Owner/Operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the Owner/Operator may monitor the connectors one time every 4 years. The Owner/Operator may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years. 4. If a process unit complying with the requirements of paragraph (B) of this section using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the Owner/Operator shall increase the monitoring frequency to one time every 2 years. The Owner/Operator may comply with the	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The Owner/Operator may again elect to use the provisions of paragraph (B)(3) of this section when the percent leaking connectors decreases to less than 0.5 percent. 5. If a process unit complying with requirements of paragraph (B)(3) of this section using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the Owner/Operator shall increase the monitoring frequency to one time per year. The Owner/Operator may again elect to use the provisions of paragraph (B)(3) of this section when the percent leaking connectors decreases to less than 0.5 percent. *[Reference: 40 CFR 63, Subpart H, §63.174(b) dated 7/1/00]* C. Other Monitoring: 1. Opened connectors: a. Except as provided in paragraph (C)(1)(b) of this section, each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions of paragraph (D) of this section, unless it is determined to be non-repairable, in which case it is counted as a non-repairable connector for the purposes of paragraph (H) of this section. b. As an alternative to the requirements in paragraph (C)(1)(a) of this section, an Owner/Operator may choose not to	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	monitor connectors that have been opened or otherwise had the seal broken. In this case, the Owner/Operator may not count non-repairable connectors for the purposes of paragraph (H) of this section. The Owner/Operator shall calculate the percent leaking connectors for the monitoring periods described in paragraph (B) of this section, by setting the non-repairable component, C_{AN}, in the equation in paragraph (H)(2) of this section to zero for all monitoring periods. c. An Owner/Operator may switch alternatives described in paragraphs (C)(1)(a) and (b) of this section at the end of the current monitoring period he is in, provided that it is reported as required in Section 12 of this unit and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch. 2. As an alternative to the requirements of paragraph (B) of this section, each screwed connector 2 inches or less in nominal inside diameter installed in a process unit before December 31, 1992, may: a. Comply with the requirements of Section 8 of this unit, and b. Be monitored for leaks within the first 3 months after being returned to organic hazardous air pollutants service after having been opened or otherwise had the seal broken. If that monitoring detects a leak, it shall be repaired according to the provisions of	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	paragraph (D) of this section. *[Reference: 40 CFR 63, Subpart H, §63.174(c) dated 7/1/00]* D. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in paragraph (F) of this section and in Section 9 of this unit. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.174(d) dated 7/1/00]* E. Any connector that is designated as an unsafe-to-monitor, difficult to monitor, or unsafe to inspect connector is exempt from the requirements of paragraph (A) of this section if: 1. The Owner/Operator determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with paragraphs (A) through (D) of this section; and 2. The Owner/Operator has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic schedule otherwise applicable. *[Reference: 40 CFR 63, Subpart H, §63.174(f) dated 7/1/00]* F. Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (A) and (D) of this section if: 1. The Owner/Operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraph (D) of this section; and 2. The connector will be repaired before the	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	end of the next scheduled process unit shutdown. *[Reference: 40 CFR 63, Subpart H, §63.174(g) dated 7/1/00]* G. Inaccessible/Ceramic connectors 1. Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (A) and (D) of this section and from the recordkeeping and reporting requirements of Section 12 of this unit. An inaccessible connector is one that is: a. Buried; b. Insulated in a manner that prevents access to the connector by a monitor probe; c. Obstructed by equipment or piping that prevents access to the connector by a monitor probe; d. Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground; e. Inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or f. Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	as electrical lines, or would risk damage to equipment. 2. If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 9 of this unit and paragraph (F) of this section. 3. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. *[Reference: 40 CFR 63, Subpart H, §63.174(h) dated 7/1/00]* H. For use in determining the monitoring frequency, subsequent to the first monitoring period for connectors as specified in paragraph (B) of this section, the percent leaking connectors shall be calculated using the following equation: $\%C_L = [(C_L - C_{AN})/(C_t + C_C)] \times 100$ where: $\%C_L$= Percent leaking connectors as determined through periodic monitoring required in paragraphs (A) and (B) of this section. C_L= Number of connectors, including non-repairables, measured at 500 parts per million or greater, by the method specified in 40 CFR 63, Subpart H, §63.180(b) dated 7/1/00. C_{AN}= Number of allowable non-repairable connectors, as determined by monitoring required in paragraphs (B)(3) and (C) of this section, not to exceed 2 percent of the total	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	connector population, C_t. C_t= Total number of monitored connectors, including non-repairables, in the process unit. C_c= Optional credit for removed connectors = 0.67 x net (i.e., total removed-total added) number of connectors in organic hazardous air pollutants service removed from the process unit after October 24, 1994. If credits are not taken, then C_c= 0. *[Reference: 40 CFR 63, Subpart H, §63.174(i) dated 7/1/00]* I. Optional credit for removed connectors. If an Owner/Operator eliminates a connector subject to monitoring under paragraph (B) of this section, the Owner/Operator may receive credit for elimination of the connector, as described in paragraph (H) of this section, provided the requirements in paragraphs (I)(1) through (I)(4) are met. 1. The connector was welded after December 31, 1992. 2. The integrity of the weld is demonstrated by monitoring it according to the procedures in 40 CFR 63, Subpart H, §63.180(b) or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method. 3. Welds created after December 31, 1992 but before October 24, 1994 were monitored or tested by January 24, 1995. 4. Welds created after December 31, 1994 are monitored or tested within 3 months after being welded. 5. If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	therefore not exempt from the provisions of this subpart. *[Reference: 40 CFR 63, Subpart H, §63.174(j) dated 7/1/00]* J. When each leak is detected the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and no leak has been detected during the follow-up monitoring. If the Owner/Operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i), the identification on a connector may be removed after it is monitored as specified in and no leak is detected during that monitoring. 3. The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of Section 11(iii)(C)(1)(a), may be removed after it is repaired. *[Reference: 40 CFR 63, Subpart H, §63.162(f) dated 7/1/00]* 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. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated*	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	7/1/00] B. The following information pertaining to all equipment in each process unit subject sections 2 through 11 shall be recorded: 1. A schedule for monitoring connectors subject to the provisions of paragraph 7(iii)(B) of this section. 2. Identification of screwed connectors subject to the requirements of paragraph (iii)(C)(2) of this section. Identification can be by area or grouping as long as the total number within each group or area is recorded. 3. The following information pertaining to all connectors subject to the provisions of paragraphs (iii)(E) and (F) of this section shall be recorded: a. Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment. b. A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment. c. A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair. 4. A list of connectors removed from and added to the process unit, as described in (iii)(H) of this section, and documentation of the integrity of the weld for any removed connectors, as required in paragraph (iii)(J) of this section. This is not	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	required unless the net credits for removed connectors are expected to be used. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. When a leak is detected, information shall be recorded and kept for 5 years as required by section 12(iv)(C) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]*	
12. **General Recordkeeping and Reporting Requirements.** i. Operational Limitations: None.	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: None. iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. All records and information required by this unit shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site. *[Reference: 40 CFR 63, Subpart H, §63.181(a) dated 7/1/00]* B. The following information pertaining to all equipment in each process unit subject to the requirements in Sections 1 - 11 of this unit shall be recorded: 1. A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in Section 11 and	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. The Owner/Operator shall submit Periodic Reports containing the information in paragraphs (C) and (D) of this section shall be submitted semiannually by January 19 and July 19 of each year. Each periodic report shall cover the previous 6 month period of May 1 - November 31 and December 1 - April 30 respectively. *[Reference: 40 CFR 63, Subpart H, §63.182(d)(1) dated 7/1/00]* C. For each process unit complying with the provisions of sections 2 through 11 of this unit, the summary information listed in paragraphs (1) through (12) of this section for each monitoring period during the 6-month period. 1. The number of valves for which leaks were detected as described in section 7(iii)(A) of this unit, the percent leakers, and the total number of valves monitored; 2. The number of valves for which leaks were not repaired as required in section 7(iii)(D) of this unit, identifying the number of those that are determined

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	instrumentation systems) subject to the requirements of this unit. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. 2. Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods. *[Reference: 40 CFR 63, Subpart H, §63.181(b) dated 7/1/00]* C. When each leak is detected, the following information shall be recorded and kept for 5 years: 1. The instrument and the equipment identification number and the operator name, initials, or identification number. 2. The date the leak was detected and the date of first attempt to repair the leak. 3. The date of successful repair of the leak. 4. Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A dated 7/1/00, after it is successfully repaired or determined to be non-repairable. 5. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. a. The Owner/Operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by Section 1 of this unit, for	non-repairable; 3. The number of pumps for which leaks were detected as described in section 2(iii)(A) of this unit, the percent leakers, and the total number of pumps monitored; 4. The number of pumps for which leaks were not repaired as required in section 2(iii)(B) of this unit; 5. The number of compressors for which leaks were detected as described in section 3(iii)(C) of this unit; 6. The number of compressors for which leaks were not repaired as required in section 3(iii)(D) of this unit; 7. The number of connectors for which leaks were detected as described in section 11(iii)(A) of this unit, the percent of connectors leaking, and the total number of connectors monitored; 8. The number of connectors for which leaks were not repaired as required in section 11(iii)(D) of this unit, identifying the number of those that are determined non-repairable; 9. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. 10. The results of all monitoring to show compliance with sections 3(iii)(F), 4(i)(A) and 10(iii)(A) of this unit conducted within the semiannual reporting period. 11. If applicable, the initiation of a monthly monitoring program under section 7(B)(1)(a of this unit, or a quality improvement program under 40 CFR 63, Subpart H, §63.176 dated 7/1/00.

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. b. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. 6. Dates of process unit shutdowns that occur while the equipment is unrepaired. 7. Opened connectors: a. Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required in section 11(iii)(B) of this unit, as described in section 11(iii)(C)(1), unless the Owner/Operator elects to comply with the provisions of section 11 (iii)(C)(2). b. The date and results of monitoring as required in section 11(iii)(C) of this unit. If identification of connectors that have been opened or otherwise had the seal broken is made by location under paragraph (C)(7)(a) of this section, then all connectors within the designated location shall be monitored. 8. Copies of the periodic reports as specified in paragraph (v) of this section, if records are not maintained on a computerized database capable of generating summary	12. If applicable, notification of a change in connector monitoring alternatives as described in section 11(iii)(C)(1) of this unit. *[Reference: 40 CFR 63, Subpart H, §63.182(d) dated 7/1/2000]* C. Any revisions to items reported in an earlier Notification of Compliance Status, as listed in paragraphs (1) through (4) of this section, if the method of compliance has changed since the last report. 1. Process unit identification. 2. Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service. 3. Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals"). *[Reference: 40 CFR 63, Subpart H, §63.182(d)(4) dated 7/1/2000]* vi. Compliance 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	reports from the records. *[Reference: 40 CFR 63, Subpart H, §63.181(d) dated 7/1/00]*	
bc. Emission Unit 32: Process heater 32-H-101; Emission Point 32-1.		
1. **Particulate Matter.** i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin Code** 1104 Section 2.1 dated 2/1/81]* ii. Operational Limitations: A. The Owner/Operator shall only combust desulfurized RFG as the primary fuel. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. In addition, the Owner/Operator may combust vented vapors from the Alky Merox and Poly Merox processes and benzene vapors displaced from storage and loading operations as described under Section ba. *[Reference: 40 CFR 63.113 and 40 CFR 63.116(e) both dated 1/17/1997]*	iii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00* A. Compliance with the Emission Standard is based on fuel type and quality. B. Compliance with the Operational Limitation A shall be demonstrated by record keeping. C. Compliance with Operational Limitation B shall be based on introducing the process gas into the flame zone of 32-H-101, except that when benzene vapors are controlled by this process heater the Owner/Operator may alternatively pre mix the benzene waste with the fuel as prescribed in Operational Limitation ba.1.ii.B. iv. Monitoring/Testing: The Owner/Operator shall continuously monitor the H_2S content in the RFG. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* v. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator 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 fuel usage records for each unit.	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
2. **Sulfur Dioxide (SO_2).** i. Emission Standards: A. **[RESERVED]** B. The Owner/Operator shall not burn in any fuel gas combustion device any fuel gas including process off-gases from Alky Merox, Poly Merox, and benzene vapors that contains H_2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference: 7 **DE Admin Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/2/90 and7 **DE Admin. Code** 1108 Section 2.1 dated 12/8/1983]*.	iii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* A Continuous Emissions Monitoring System (CEMS) shall be used to demonstrate compliance with Emission Standard (B) for the primary fuel. B. Compliance with Emission Standard (B) shall be based on monitoring. C. **[RESERVED]** iv. Monitoring/Testing: A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 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: A. The Owner/Operator shall keep records of all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	test audits for at least 5 years. *[Reference Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.1 dated 12/11/00]*	
3. **Nitrogen Oxides (NO_X).** i. Emission Standard: A. NO_X emissions shall not exceed 0.20 lb/mmBtu. *[Reference: **APC-81/0832(A1)** Condition No. 9 and 7 **DE Admin Code** 1112, Section 3.2.4.3 dated 11/24/93]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Condition 3 - Table 1.j.	ii. Compliance Method: Compliance with this emission standard and these operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following: A. Compliance with the emission standard (A) shall be demonstrated by conducting an annual stack test. *[Reference: **APC-81/0832(A1)** Condition No. 9]* B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring & Testing: B. The annual stack test shall conform to the procedures described in Reference Method 7 in 40 CFR 60, Appendix "A". C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOX)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* 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. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. B. [**RESERVED**]	v. 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	C. **[RESERVED]**	
4. **Visible Emissions Standard:** i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin Code** 1114, Section 2.1 dated 7/17/84]*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.3 dated 12/11/00]* iii. Monitoring/Testing: A. Visual observations in accordance with paragraph (C) below shall be conducted within one (1) week of the annual tune-up. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* B. 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 (C) below. 2. If no visible emissions are observed, no further action is required. *[Reference Reg. No. 30 Section 6(a)(3) dated 12/11/00]* C. In accordance with Subsection 1.5.3 of 7 **DE Admin Code** 1120, 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 & 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,	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	1982. *[Reference 7 **DE Admin Code** 1120, Section 1.5.3 dated 12/7/88]* iv. Record keeping: 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. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request.	
c. Emission Unit 33: Selective Hydrogenation Unit and Process Heaters 33-H-1 and 33-H-2; Emissions Points 33-1 and 33-2		
1. **Particulate Matter.** i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin Code** 1104 Section 2.1 dated 2/1/81]* ii. Operational Limitation: The Owner/Operator shall only combust desulfurized RFG or natural gas in units 33-H-1 and 33-H-2. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	iii. Compliance Method: *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with the emission standard is based on fuel type and quality. B. Compliance with the operational limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: The Owner/Operator shall continuously monitor the H_2S content in the RFG. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* v. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator 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 records of fuel usage in each unit. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	vi. Reporting Requirement: 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
2. **Sulfur Dioxide (SO_2).** i. Emission Standard: [**RESERVED**] ii. Operational Limitation: The Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains more H_2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference: 7 **DE Admin Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/2/90 and 7 **DE Admin. Code** 1108 Section 2.1 dated 12/8/1983]*	iii. Compliance Method: *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. A Continuous Emissions Monitoring System (CEMS) shall be used to demonstrate compliance with the operational limitation. B. [**RESERVED**] iv. Monitoring/Testing: 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 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 records of all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits for at least 5 years.	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]*
3. **Nitrogen Oxides (NO_X).** i. Operational Limitations: A. For 33-H-2: NO_X emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference: 7 **DE Admin Code** 1112, Section*	ii. Compliance Method: *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. For 33-H-2: Compliance demonstration with the Operational Limitation shall be by conducting an annual tune up of each unit by qualified personnel.	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
3.3.2 dated 11/24/93] B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j.	B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring & Testing: A. For Unit 33-H-2: None in addition to the annual tune up. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. A log of all tune ups performed. B. Documentation of qualifications of personnel responsible for conducting the tune up. C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 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]*
4. **Visible Emissions Standard:** The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin Code** 1114, Section 2.1 dated 7/17/84]*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: A. Visual observations in accordance with paragraph (C) below shall be conducted within one (1) week of the annual tune-up. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3 dated*	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	12/11/00] B. 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 (C) 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]* C. In accordance with Subsection 1.5(c) of 7 **DE Admin. Code** 1120, 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 & 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]* iv. Record Keeping: 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. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	units shall be maintained and made available to the Department upon request.	
d. Emissions Unit 34: Olefins Plant and Process Heater 134-H-101; Emission Point 34-1.		
1. **Particulate Matter.** i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin Code** 1104 Section 2.1 dated 2/1/81]* ii. Operational Limitation: The Owner/Operator shall only combust desulfurized RFG or natural gas in unit 134-H-101. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	iii. Compliance Method: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with the emission standard is based on fuel type and quality. B. Compliance with the operational limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The Owner/Operator shall continuously monitor the H_2S content in the RFG. v. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator shall: A. The Owner/Operator shall maintain fuel usage records of Unit 134-H-101. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 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]* 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]*
2. **Sulfur Dioxide (SO_2).** i. Emission Standards: [**RESERVED**] ii. Operational Limitation: The Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains H_2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference: 7 **DE Admin Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/2/90 and 7 **DE Admin. Code** 1108 Section 2.1 dated 12/8/1983]*	iii. Compliance Method: *[Reference: Regulation No. 30 Section 6(a)(3)(i)(B) dated 12/11/00]* A. A Continuous Emissions Monitoring System (CEMS) for H_2S shall be used to demonstrate compliance with the operational limitation. B. [**RESERVED**] iv. Monitoring/Testing: 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 monitoring instrument 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 H_2S	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 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]* The Owner/Operator shall keep records of all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits for at least five (5) years.	
3. **Nitrogen Oxides (NO_X).** i. Operational Limitation: A. For 134-H-101: NO_X emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference 7 **DE Admin Code** 1112, Section 3.3.2 dated 11/24/1993]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j.	ii. Compliance Method: A. For 134-H-101: Compliance demonstration with the Operational Standard shall be by conducting an annual tune up of each unit by qualified personnel. B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring & Testing: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. For Unit 134-H-101: None in addition to the annual tune up required by the Operational Standard. B. Conduct a visible emissions evaluation after conclusion of the annual tune up in accordance with Condition 3 - Table 1.db.4. C. Comply with "Facility-wide Emission Limit for	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* 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. A log of all tune ups performed. B. Documentation of qualifications of personnel responsible for conducting the tune up. C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j.	
4. **Visible Emissions Standard:** i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference: 7 **DE Admin Code** 1114, Section 2.1 dated 7/17/84]*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: A. Visual observations in accordance with paragraph (C) below shall be conducted within one (1) week of the annual tune-up. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* B. 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 (C) below.	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	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]* C. In accordance with Subsection 1.5(c) of 7 **DE Admin. Code** 1120, 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 & 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(c) dated 12/7/88]* iv. Record keeping: 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. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	
e. Emissions Unit 36: Hydrocracker Unit, Process Heaters 36-H-1, 36-H-2 and 36-H-3; Emission Points 36-1 and 36-2.		
1. **Particulate Matter.** i. Emission Standard: The Owner/Operator shall not cause or allow	iii. Compliance Method: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with the Emission Standard is based on fuel type and quality.	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*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin Code** 1104 Section 2.1 dated 2/1/81]* ii. Operational Limitation: The Owner/Operator shall only combust desulfurized RFG or natural gas in Units 36-H-1, 36-H-2 and 36-H-3. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	B. Compliance with the Operational Limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: The Owner/Operator shall continuously monitor the H_2S content in the RFG. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* v. Record Keeping: 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 fuel usage records of Units 36-H-1, 36-H-2 and 36-H-3.	*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]*
2. **Sulfur Dioxide (SO_2).** i. Emission Standard: **[RESERVED]** ii. Operational Limitation: The Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains more H_2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference Regulation No. 20, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10.2.90 and 7 **DE Admin. Code** 1108 Section 2.1 dated 12/8/1983]*	iii. Compliance Method: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. A Continuous Emissions Monitoring System (CEMS) shall be used to demonstrate compliance with the operational limitation. B. **[RESERVED]** iv. Monitoring/Testing: 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F". The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	v. Record Keeping: 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 records of all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits for at least 5 years.	
3. **Nitrogen Oxides (NO_X).** i. Operational Limitation: A. For Units 36-H-1, 36-H-2 and 36-H-3: NO_X emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference: 7 **DE Admin . Code** 1112, Section 3.3.2 dated 11/24/1993]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j.	ii. Compliance Method: A. For Units 36-H-1, 36-H-2 and 36-H-3: Compliance demonstration with the Operational Limitation shall be by conducting an annual tune up of each unit by qualified personnel. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]* iii. Monitoring & Testing: A. For Units 36-H-1, 36-H-2 and 36-H-3: None in addition to the annual tune up. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* iv. Record Keeping: 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. A log of all tune ups performed B. Documentation of qualifications of personnel	v. 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	responsible for conducting the tune up. C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	
4. **Visible Emissions Standard:** i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin Code** 1114, Section 2.1 dated 7/17/84]*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: A. Visual observations in accordance with paragraph (C) below shall be conducted within one (1) week of the annual tune-up. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* B. 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 (C) 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]* C. In accordance with Subsection 1.5(c) of 7 **DE Admin. Code** 1120, 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	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	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(c) dated 12/7/88]* iv. Record keeping: 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. Observation records shall be maintained and made available to the Department upon request. B. Records of all maintenance performed on these units shall be maintained and made available to the Department upon request.	
fa. <u>Emissions Unit 40</u>: Refinery Tank Farm Units With External Floating Roofs with Double Seals Subject to 40 CFR part 63, Subpart CC and 40 CFR part 60, Subpart Kb: Tanks 044-TF-112, 050-TF-78, 065-TF-50, 73-TF-78. (These tanks are Group 1 MACT tanks that are to comply with the provisions of 40 CFR part 60, subpart Kb except as provided for in paragraphs §63.640(n)(8)(i) through §63.640(n)(8)(vi))		
1. **Volatile Organic Compounds (VOC).** i. Equipment Standards: A. Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal. *[Reference: 40 CFR 60.112b(a)(2) dated 10/8/97]* 1. The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in Sec. 60.113b(b)(4), the seal shall completely cover the annular space between the edge	iii. Compliance Methodology: Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency. 1. Measurements of gaps between the tank	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. For all inspections required by §60.113b(b)(6), the Owner/Operator shall provide a 15 day telephone notification to allow the administrator to afford the opportunity to inspect the storage vessel prior to refilling. *[Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00 and 40 CFR 63.646(l) dated 2/21/97]* B. Notify the Administrator 30 days in advance of any gap measurements to afford the

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
of the floating roof and tank wall. *[Reference: 40 CFR 60.112b(a)(2)(i) dated 10/8/97 and 113b(b)(4)(ii)(A) dated 8/11/89]* 2. The secondary seal shall be installed above the primary seal and shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in Sec. 60.113b(b)(4). *[Reference: 40 CFR 60.112b(a)(2)(i) dated 10/8/97]* B. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm. *[Reference: 40 CFR 60.113b(b)(4)(i) dated 8/11/1989]* C. One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface. *[Reference: 40 CFR 60.113b(b)(4)(i)(A) dated 8/11/1989]*D. D. The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm. *[Reference: 40 CFR 60.113b(b)(4)(ii)(B) dated 8/11/1989]* E. There shall be no holes, tears or other openings in either the shoe, seal fabric or seal envelope of both primary and secondary seals. *[Reference: 40 CFR 60.113b (b)(4)(i)(B) and (4)(ii)(C) dated 8/11/1989]* ii. Operational Limitations: A. The roofs shall be floating the liquid at all times except during initial fill until the roof is lifted off the leg supports and when the tank	wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter. 2. Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter. *[Reference: 40 CFR Part 60, Subpart Kb, §60.113b(b)(1)(i) dated 8/11/89 and 40 CFR 63.120(b)(1)(i) dated 1/17/97]* B. Determine gap widths and areas in the primary and secondary seals individually by the following procedures: 1. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports. 2. Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location. 3. The total surface area of each gap shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance. *[Reference: 40 CFR 60.113b(b)(2) dated 8/11/89]* C. Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in	Administrator the opportunity to have an observer present. *[Reference: 40 CFR 60.113b(b)(4) dated 8/11/89]* C. Periodic Reports Within 60 days of performing the gap measurements required by §60.113b(b)(1), submit a report containing the information required below. A report is not needed if none of the measured gaps or calculated gap areas exceed the limitations. *[Reference : 40 CFR 60.115b(b)(2) dated 4/8/87]* 1. The date of measurement. 2. The raw data obtained in the measurement. 3. The calculations described in §60.113b(b)(2) and (b)(3). D. Periodic Reports: After each seal gap measurement that detects gaps exceeding the limitation specified in §60.113b(b)(4) submit a report within 30 days of the inspection. The report shall identify the storage vessel and contain the information specified in §60.115b(b)(2) and the date the vessel was emptied or the repairs made and date of repair. *[Reference: 40 CFR 60.115b(b)(4) dated 4/8/87 and 40 CFR 63.640(n)(8)(v) dated 5/25/2001]* E. The Owner/Operator shall submit the reports listed below: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report as described in 40 CFR 63.654(f); 2. Periodic Reports as described in 40 CFR 63.654(g); and 3. Other reports as described in 40 CFR 63.654(h). 4. In the event an out of service tank is

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. *[Reference: 40 CFR 60.112b(a)(2)(iii) dated 8/11/1989]* B. Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. *[Reference: 40 CFR 60.112b(a)(2)(ii) dated 10/8/97]* C. The tanks shall not store petroleum liquid unless the tanks are operating properly. *[Reference: APC-80/0869(A5)]* D. The maximum true vapor pressure of the stored petroleum liquid shall not exceed 11.1 psia. *[Reference: 40 CFR 60.112b(a) dated 8/11/1989 and 40 CFR 63.641 dated 1/17/1997]*	paragraph (b)(4) of this Sec. ion. *[Reference: 40 CFR 60.113b(b)(3) dated 8/11/89]* D. Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this Sec. ion. *[Reference: 40 CFR 60.113b(b)(4) dated 8/11/89]* E. If a failure is detected during the inspections required by §60.113b(a)(2) or during the seal gap measurements required by §60.113b(b)(1), and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Administrator. *[Reference: 40 CFR 63.649(n)(8)(iii) dated 5/25/2001]* F. Visually inspect the external floating roof, primary and secondary seals, and fittings each time the vessel is emptied and degassed. *[Reference: 40 CFR 60.113b(b)(6) dated 8/11/89]* 1. If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the Owner/Operator shall repair the items as necessary so that none of the conditions specified in the paragraph exist before filling or refilling the storage vessel with VOL. *[Reference: 40 CFR 60.113b(b)(6)(i) dated 8/11/89]* 2. Comply with the reporting requirements specified in paragraph (vi)(A) of this section. G. If the owner or operator determines that it is unsafe to perform the seal gap measurements	being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654. 5. The notification required in 40 CFR 60.113b(b)(6)(11) for tanks subject to the limitation specified in §60.113b(b)(4) submit a report within 30 days of the inspection. The report shall identify the storage vessel and contain the information specified in §60.115b(b)(2) and the date the vessel was emptied or the repairs made and date of repair. *[Reference: 40 CFR 60.115b(b)(4) dated 4/8/87and 40 CFR 63.640(n)(8)(v) dated 5/25/2001]* F. The Owner/Operator shall submit the reports listed below: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report as described in 40 CFR 63.654(f); 2. Periodic Reports as described in 40 CFR 63.654(g); and 3. Other reports as described in 40 CFR 63.654(h). 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654. 5. The notification required in 40 CFR 60.113b(b)(6)(11) for tanks subject to the requirements in 40 CFR 60.113b(b)(6). vii. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
E. If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of Monitoring/Testing (A). *[Reference: 40 CFR 60.113b(b)(1)(iii) dated 8/11/89]*	required in 40 CFR 60.113b(b) of subpart Kb or to inspect the vessel to determine compliance with 40 CFR 60.113b(a) of subpart Kb because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either §63.120(b)(7)(i) or §63.120(b)(7)(ii) of subpart G. *[Reference: 40 CFR 63.640(n)(8)(ii) dated 5/25/2001]* v. Record Keeping: 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. Keep a record of seal gap measurements. Each record shall identify the storage vessel on which the measurement was performed and shall contain: *[Reference 40 CFR 60.115b(b)(3) dated 8/11/89]* 1. The date of measurement. 2. The raw data obtained in the measurement. 3. The calculations described in §60.113b(b)(2) and (b)(3). B. Records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. *[Reference 40 CFR 60.116b(b) dated 10/15/2003]* C. Records of the VOL stored, the period of storage, and the maximum true vapor pressure during the storage period. *[Reference: 40 CFR 60.116b(c) dated 10/15/2003]* D. Each owner or operator subject to the storage vessel provisions in §63.646 shall keep the records specified in §63.123 of subpart G of this part except as specified in paragraphs (i)(1)(i)through (i)(1)(iv) of this section:	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	[Reference: 40 CFR 60.654(i) dated 8/18/98] 1. Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources. 2. All references to §63.122 in §63.123 of subpart G of this part shall be replaced with §63.654(e). 3. All references to §63.150 in §63.123 of subpart G of this part shall be replaced with §63.652. E. If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained. *[Reference: 40 CFR 63.654(i)(1)(iv) dated 8/18/98]*	
fb. Emission Unit 40: Refinery Tank Farm Units With External Floating Roofs with Double Seals Subject to 40 CFR part 63, Subpart CC and 40 CFR part 60, Subpart Ka: Tanks 009-TF-400, 166-TF-112, 205-TF-153, 227-TF-400, 261-TF-50, 580-TF-10 (All tanks are Group 1 MACT tanks that are to comply with the provisions of 40 CFR part 63, subpart CC as provided by 63.640(n)(5)		
1. **Volatile Organic Compounds (VOC).** i. Equipment Standards: A. Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. 1. The closure device shall consist of 2 seals, one above the other. The lower seal is the primary seal and the upper seal is the secondary seal. 2. The primary seal shall be either a metallic shoe seal or a liquid-mounted seal. 3. Both the primary and secondary seals shall completely cover the annular space between the external floating roof and	iv. Compliance Method: Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* A. Compliance with the Emission Limitation A shall be demonstrated by using EPA's TANKS 4.09 program or an updated equivalent methodology using monthly liquid throughput and the monthly average storage temperature. *[Reference: APC-80/0868(A3)]* v. Monitoring/Testing: In addition to the requirements of Conditions	vii. 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. Submit the reports listed below: 1. A Notification of Compliance Status report in accordance with §63.654(f). *[Reference: 40 CFR 63.654(e)(1) dated 8/18/1998]* 2. Semiannual Periodic Reports in

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
the wall of the storage vessel in a continuous fashion except as provided by 40 CFR 63.120(b). *[Reference: 40 CFR 63.119(c)(1) dated 12/21/2006]* B. If the primary seal is a metallic shoe seal, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 cm above the stored liquid. *[Reference: 40 CFR 63.120(b)(5)(i) dated 1/17/1997]* C. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 cm^2/meter of tank diameter and the width of any portion of the gap shall not exceed 3.81 cm. *[Reference: 40 CFR 63.120(b)(3) dated 1/17/1997]* D. The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall. *[Reference: 40 CFR 63.120(b)(6)(i) dated 1/17/1997]* E. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 cm^2/meter of tank diameter and the width of any portion of the gap shall not exceed 1.27 cm. *[Reference: 40 CFR 63.120(b)(4) dated 1/17/1997]* F. There shall be no holes tears or other openings in either the shoe, seal fabric or seal envelope of both primary and secondary seals. *[Reference: 40 CFR 63.120(b)(5)(ii) and (6)(ii) dated 1/17/1997]* G. If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access. *[Reference 40 CFR Part 63.646(f)(1) dated 2/21/1997]* H. Rim space vents are to be set to open only when the floating roof is not floating or when	3(b)(1)(ii) of this permit, the Company shall: A. The Company shall determine the gap areas and maximum gap widths between the primary seal and the storage vessel wall during hydrostatic testing and at least once every 5 years. *[Reference: 40 CFR 63.120(b)(1)(i) dated 1/17/1997]* B. The Company shall determine the gap areas and maximum gap widths between the secondary seal and the storage vessel wall at least once every year. *[Reference: 40 CFR 63.120(b)(1)(iii) dated 1/17/1997]* C. The Company shall determine the gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in 40 CFR 63.120(b)(2)(i) and (ii). *[Reference: 40 CFR 63.120(b)(2) dated 1/17/1997]* D. The total surface area of each gap shall be determined by using probes of various widths to measure accurately the actual distance from the vessel wall to the seal and multiplying each such width by its respective circumferential distance. *[Reference: 40 CFR 63.120(b)(2)(iii) dated 1/17/1997]* E. To determine the accumulated area of gaps between the vessel wall and the primary and secondary seals, the owner/operator shall add the gap surface area of each gap location and divide the sum by the nominal diameter of the vessel. *[Reference: 40 CFR 63.120(b)(3) and (4) dated 1/17/1997]* F. If any storage vessel ceases to store organic HAP for a period of 1 year or more, or if the maximum true vapor pressure of the total organic HAP's in the stored liquid falls below the values defining Group 1 storage vessel specified in table 5 or table 6 of 40 CFR Part 60 subpart G for a period of 1 year or more, measurements of gaps between the vessel wall and the	accordance with §63.654(g)(1) and (3). *[Reference: 40 CFR 63.654(e)(1) dated 8/18/1998]* 3. **[RESERVED]** 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in §63.654. 5. Reports as specified in 40 CFR Part 63 subpart A. *[Reference: 40 CFR 63.654(h) dated 8/18/98]* 6. Reports of startup, shutdown, and malfunction required by 40 CFR 63.10(d)(5) in accordance with 40 CFR 63.654(h)(1). *[Reference: 40 CFR 63.654(h)(1)dated 8/18/98]* F. Report to the Department the refilling of each storage vessel that has been emptied and degassed. The notification shall be in writing at least 30 calendar days prior to the filling or refilling, except as provided in 40 CFR 63.654(h)(2)(i). *[Reference 40 CFR 63.654(h)(2)(i) dated 8/18/98]* G. Report to the Department any seal gap measurements at least 30 calendar days in advance of any seal gap measurements. *[Reference: 40 CFR 63.654(h)(2)(ii) dated 8/18/98]* viii. 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]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
the pressure beneath the rim seal exceeds the manufacturer's recommended setting. *[Reference 40 CFR Part 63.646(f)(2) dated 2/21/1997]* I. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. *[Reference 40 CFR Part 63.646(f)(3) dated 2/21/1997]* ii. Operational Limitation: A. The external floating roof shall rest on the liquid surface at all times except during initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled. *[Reference: 40 CFR63.119(c)(3) dated 12/21/2006]]* B. [RESERVED] C. The tanks shall not store petroleum liquid unless the tanks are operating properly. *[Reference: APC-80/0869(A5)]* D. The maximum true vapor pressure of the stored petroleum liquid shall be less than 76.6 kilopascals (11.1 psia). *[Reference: 40 CFR 63.641 dated 1/17/1997]* E. **[RESERVED]** F. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical. *[Reference: 40 CFR 63.119(c)(4) dated 12/21/2006]* G. Emergency roof drains shall have slotted membrane fabric covers or equivalent covers that cover at least 90% of the area of the opening. *[Reference: APC-80/0868(A3)]* iii. Emission Limitations: A. For Tanks 47, 166, 205, and 261: VOC	primary seal, and gaps between the vessel wall and the secondary seal shall be performed within 90 calendar days of the vessel being refilled with organic HAP. *[Reference 40 CFR 63.120(b)(1)(iv) dated 1/17/1997]* G. If the owner/operator is determines it is unsafe to perform the seal gap measurements of inspect the vessel because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the owner/operator shall comply with the requirements of 40 CFR 63.120(b)(7). *[Reference: 40 CFR 63.120(b)(7) dated 1/17/1997]* H. The Owner/Operator shall visually inspect the external floating roof, primary and secondary seals, and fittings each time the vessel is emptied and degassed. If the external floating roof has defects, as described in 40 CFR 63.120(b)(10) dated 1/17/1997, the owner/operator shall repair the items as necessary so that none of the defects exist before filling or refilling the storage vessel with organic HAP. *[Reference: 40 CFR 63.120(b)(10) dated 1/17/1997]* I. The O/O shall repair conditions that do not meet the requirements listed in Equipment Standards (B) through (F) no later than 45 calendar days after identification, or shall empty and remove the vessel from service no later than 45 calendar days after identification. If during seal gap measurements or during inspections necessary to determine compliance with Equipment Standards (C), (E), and (F) a failure is detected that cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
emissions from the tanks shall not exceed 4.9 tons per 12 month rolling average. *[Reference: APC-80/0868(A3)]* B. For Tanks 166, 205, and 261: The requirements of **Permit: AQM-003/00016 – Part 2** Condition 3 – Table 1.oa shall apply to the new fugitive VOC sources associated with these tanks. *[Reference: APC-80/0868(A3)]*	extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. *[Reference: 40 CFR 63.120(b)(8) dated 1/17/1997]* vi. 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. Keep records describing the results of each seal gap measurement. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations. *[Reference 40 CFR 654(i) dated 8/18/1998 and 40 CFR 63.123(d) dated 12/23/2004]* B. Records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the vessel retains Group 1 or Group 2 status and is in operation. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-80/0868(A3)]* C. Records of the VOL stored, the period of storage and the maximum true vapor pressure during the storage period. *[Reference 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
fc. Emission Unit 40: Refinery Tank Farm Units With External Floating Roofs with Double and Single Seals Subject to 7 DE Admin. Code 1124, Section 30 and 40 CFR Part 63, Subpart CC: Tanks 001-TF-200. 002-TF-200, 003-TF-200, 004-TF-200, 005-TF-200, 006-TF-200, 007-TF-200, 008-TF-200, 009-TF-400, 10-TF-274, 11-TF-274, 12-TF-274, 044-TF-12, 048-TF-112, 050-TF-78, 051-TF-78, 065-TF-50, 072-TF-50, 073-TF-78, 135-TF-78, 136-TF-78, 137-TF-78, 145-TF-78, 146-TF-78, 147-TF-78, 161-TF-78, 162-TF-78,163-TF-153, 165-TF-153, 167-TF-50, 181-TF-78, 182-TF-78, 183-TF-153, 185-TF-153, 186-TF-112, 187-TF-50, 203-TF-112, 204-TF-50, 223-TF-112, 224-TF-112, 225-TF-133, 227-TF-400, 241-TF-50, 242-TF-153, 243-TF-112, 248-TF-200, 262-TF-153, 263-TF-112, 268-TF-200, 281-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, 286-TF-200, 580-TF-10 (Includes Group 1 and Group 2 MACT Tanks as defined in the Semi-Annual MACT-1 SSM reports)		
1. **Volatile Organic Compounds (VOC).** i. Emission Standard: The emissions from Tanks 001-TF-200, 002-TF-200, 003-TF-200, 004-TF-200, 005-TF-200, 006-TF-200, 007-TF-200, 008-TF-200, 9-TF-400, 10-TF-274, 11-TF-274, 12-TF-274 shall not exceed 27 tons of VOCs in any twelve consecutive months. *[Reference: 80/0870(A3) Cond. 1]* ii. Equipment Standards: With the exception of Tanks 048-TF-112, 051-TF-78, 225-TF-133, 241-TF-50, 243-TF-112, 248-TF-200, 261-TF-50, 263-TF-112, 268-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, and 286-TF-200 the following equipment standards are applicable: *[Reference: 7 **DE Admin Code** 1124, Section 30.c.3.i. dated 11/29/94 and 40 CFR 63.119 and 63.120 dated 1/17/1997]* A. The primary mechanical shoe-type seal shall completely cover the annular space between the edge of the floating roof and the tank wall. B. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 cm^2/meter of tank diameter and the width of any portion of the gap shall not exceed 3.81 cm. *[Reference: 40 CFR 63.120(b)(3) dated 1/17/97]* C. The secondary seal shall be installed above the primary seal so that it completely covers	iv. Compliance Method: Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. The Owner/Operator shall also: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* A. Compliance with the Emission Standard shall be demonstrated either by using EPA's TANKS 3.1 program or an updated equivalent methodology approved by the Department, using monthly liquid throughput and the monthly average storage temperature of each tank. *[Reference: APC-80/0870(A3) Cond. 1]* v. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. Perform semiannual inspections of the floating roofs and associated components detailed n Equipment Standards (E) through (I). *[Reference: 7 **DE Admin Code** 1124 Section 30.4 dated 11/29/94].* B. The Owner/Operator shall comply with the Monitoring/Testing requirements of Condition 3 – Table 1(fb)(iv). *[Reference: 40 CFR 63.120(b) dated 1/17/97]* vi. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company	vii. Reporting: A. For all inspections, provide a 15 day telephone notification to allow the administrator to afford the opportunity to inspect the storage vessel prior to refilling. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00 and 40 CFR 63.646(l) dated 2/21/97]* B. Within 60 days of performing the gap measurements required by 7 **DE Admin. Code** 1124 section 30.6 , submit a report containing: 1. The date of measurement. 2. The raw data obtained in the measurement. 3. The calculations described in 7 **DE Admin. Code** 1124 section 30.6. *[Reference Regulation No. 30 Section 6(a)(3)(ii) dated 12/11/00]* C. When seal gap measurements exceed those specified in 7 **DE Admin. Code** 1124 section 30.6, a report shall be furnished within 60 days of the date of seal gap measurements. the report shall identify the vessel and list each reason why the vessel did not meet the specification of Section 30.6. The report shall also describe the actions necessary to bring the storage tank into compliance with the specification of Section 30.6. *[Reference: 7 **DE Admin Code** 1124 Section 30.6 dated 11/29/94 and 7 **DE**

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
the space between the roof edge and the vessel wall. *[Reference: 40 CFR 63.(b)(6)(i) dated 1/17/97]* D. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 cm^2/meter of tank diameter and the width of any portion of the gap shall not exceed 1.27cm. *[Reference:40 CFR 63.120(b)(4) dated 1/17/97]* E. There shall be no holes tears or other openings in either the shoe, seal fabric or seal envelope of both primary and secondary seals. *[Reference: 7 **DE Admin Code** 1124 Section 30.3.2.1 dated 11/29/94 and 40 CFR 63.120(b)(5)(ii) and (6)(ii) dated 1/17/97]* F. All openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves are equipped with: 1. Covers, seals or lids in the closed position except when the openings are in actual use. 2. Projections into the tank that remain below the liquid surface at all times. *[Reference: 7 **DE Admin Code** 1124 Section 30.3.3 dated 11/29/94]* G. Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports. *[Reference: 7 **DE Admin Code** 1124, Section 30.c.4. dated 11/29/94 and 40 CFR 63.119(c)(5)(ii) dated 1/17/1997]* H. Rim space vents must be open or set at the manufacturer's recommended setting when the roof is being floated-off the leg supports. *[Reference: 7 **DE Admin Code** 1124, Section 30.c.5. dated 11/29/94]* I. Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers that cover at least 90 percent of the area of the opening. *[Reference: 7 **DE Admin**	shall: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]* A. Keep records describing the results of each seal gap measurement. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations. *[Reference 40 CFR 654(i) dated 8/18/1998 and 40 CFR 63.123(d) dated 12/23/2004]* B. Records of the types of volatile petroleum liquids stored. *[Reference: 7 **DE Admin Code** 1124 sec 30.5.1.1 dated 11/29/94]* C. Records of the maximum true vapor pressure of the liquid as stored. *[Reference: 7 **DE Admin Code** 1124 sec 30(e)(1)(ii) dated 11/29/94]* D. Records of the semiannual inspections required by Monitoring/Testing (A). *[Reference: 7 **DE Admin Code** 1124 sec 30(e)(1)(iii) dated 11/29/94]* E. For tanks containing liquid with a maximum true vapor pressure less than 1.5 psia but greater than 1.0 psia, the following records shall be kept: 1. Average monthly storage temperature; 2. Type of liquid stored; and 3. Maximum true vapor pressure. *[Reference: 7 **DE Admin Code** 1124 sec 30.5.2 dated 11/29/94]*	***Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* D. The Owner/Operator shall submit the reports listed below for the MACT Tanks: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report in accordance with 40 CFR 63.654(f); and 2. Periodic Reports in accordance with 40 CFR 63.654(g); and 3. Other reports in accordance with 40 CFR 63.654(h). 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654. viii. 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]*

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***Code** 1124, Section 30.c.6. dated 11/29/94 40 CFR 63.119(c)(2)(vi) dated 1/17/1997]* iii. Operational Limitations: A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. The practice of pumping of crude oil from one tank to another shall be minimized in an effort to control the emission of VOCs. *[Reference: APC-80/0870(A3) Cond. 4]* E. Tanks 48-TF-112 and 51-TF-78 shall contain only petroleum liquids with a maximum true vapor pressure of less than 1.0 psia (7.0 kPa). If the maximum true vapor pressure of greater than 1.0 psia (7.0 kPa), then the tank(s) shall comply with Regulation No. 1124 Section 30 as applicable. *[Reference: APC-80/0869(A5) Cond. No. 7]* F. Tanks 241-TF-50, 243-TF-112, 248-TF-200, 263-TF-112, 268-TF-200, 282-TF-200, 283-TF-200, 284-TF-200, 285-TF-200, and 286-TF-200 shall only be allowed to store petroleum liquids whose maximum true vapor pressure does not exceed 1.5 psia. *[Reference: 40 CFR 63.641 dated 8/18/98]* G. **[RESERVED]** H. The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports except during the initial fill, after the vessel has been completely emptied and degassed, and when the vessel is completely emptied before being subsequently refilled. *[Reference: 40 CFR 63.119(c)(3) dated 12/21/2006]* I. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be		

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accomplished as soon as practical. *[Reference: 40 CFR 63.119(c)(4) dated 12/21/2006]*		
fd. Emissions Unit 40 - Refinery Tank Farm Units With Fixed Roofs Subject to 40 CFR Part 63 - Subpart CC, 40 CFR Part 60 - Subpart Kb and Regulation 1124, Section 31: Tanks 71-TF-28, 78-TC-78, 470-TF-50 (Tank 71-TF-28 is a Group 1 MACT Tank and Tank 78-TC-78 is a Group 2 MACT Tank) Tanks 71-TF-28 and 470-TF-50 are fixed roof tanks with internal floating roofs to comply with the provisions of 40 CFR Part 60, Subpart Kb except as provided for in paragraphs 63.640(n)(8)(i) through 63.640(n)(8)(vi).		
1. **Volatile Organic Compounds (VOC).** i. Emission Standard: VOC emissions from Tank 470-TF-50 shall not exceed 0.9 tons in any rolling twelve month period. *[Reference: 81/0120(A2)]* ii. Operational Limitations for Tanks 71-TF-28 and 470-TF-50: A. The internal floating roofs shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the surface of the liquid at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. The process of filling emptying or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. *[Reference: 40 CFR 60.112b(a)(1)(i) dated 10/8/97]* B. Each internal floating roof shall be equipped with a mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. *[Reference: 40 CFR 60.112b(a)(1)(ii) dated 10/8/97]*	iv. Compliance Method: A. Compliance with the Emission Standard shall be based on a maximum of 270 equivalent turnovers *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. Compliance with the Operational Limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* v. Monitoring/Testing In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Owner/Operator shall: A. For Tanks 71-TF-28 and 470-TF-50: Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. *[Reference: 40 CFR 60.113b(a)(1) dated 8/11/89]* B. For tanks equipped with a single seal system 1. Visually inspect the internal floating roof and the primary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. *[Reference 40 CFR 60.113b(a)(2) dated 8/11/89]* 2. Visually inspect the internal floating roof, the primary seal, gaskets, slotted	vii. Reporting: In addition to Condition 3(c)(2) of this permit, the Owner/Operator shall submit the following reports: A. If any of the conditions described in Monitoring Testing requirement (B)(3) are detected during the inspections required by Monitoring/Testing requirement (B), a report shall be furnished to the Department within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. *[Reference: 40 CFR 60.115b(a) dated 8/11/89]* B. If an extension is utilized in accordance with Monitoring/Testing requirement (C) of this section, the owner or operator shall, in the next periodic report required by 40 CFR Part 63 Subpart CC, identify the vessel, provide the information listed in Monitoring/Testing requirement B, and describe the nature and date of the repair made or provide the date the storage vessel was emptied. *[Reference: 40 CFR 63.640(n)(8)(iv) dated 5/25/2001]* C. Notify the Department in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Monitoring/Testing requirements (A) & (D) to afford the

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
C. Each opening in the internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. *[Reference: 40 CFR 60.112b(a)(1)(iii) dated 10/8/97]* D. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, and stub drains is to be equipped with a cover or lid which is to be in a closed position at all times except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. *[Reference: 40 CFR 60.112b(a)(1)(iv) dated 10/8/97 and 7* ***DE Admin Code*** *1124 Section 31.3.3.1 dated 11/29/94]* E. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg supports. *[Reference: 40 CFR 60.112b(a)(1)(v) dated 10/8/97 and 7* ***DE Admin Code*** *1124 Section 31.3.3.2 dated 11/29/94]* F. The tank shall be maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials. *[Reference: 7* ***DE Admin Code*** *1124 Section 31.3.2 dated 11/29/94]* G. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. *[Reference: 40 CFR 60.112b(a)(1)(vii) dated 10/8/97]* H. Each penetration of the internal floating roof	membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed and in no event shall inspections be conducted at intervals greater than 10 years. *[Reference 40 CFR 60.113b(a)(4) dated 8/11/89].* C. For tanks equipped with a double seal system: 1. Visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. *[Reference 40 CFR 60.113b(a)(2) dated 8/11/89]* 2. Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least every 5 years. *[Reference 40 CFR 60.113b(a)(4) dated 8/11/89]* D. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal (if any) has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph (B) and (C) exist before refilling the storage vessel with VOL. *[Reference: 40 CFR 60.113b(a)(4) dated 8/11/89 and 7* ***DE Admin Code*** *1124 Section 31(d)(1)(ii) & (d)(2)(ii) dated 11/29/94* E. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the	Department the opportunity to have an observer present. If the inspection required by Monitoring/Testing requirement (D) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Department at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Department at least 7 days prior to the refilling. *[Reference: 40 CFR 60.113b(a)(5) dated 8/11/89]* D. The Owner/Operator may submit the inspection reports required by Reporting requirement (A) as part of the periodic reports required by 40 CFR Part 63 Subpart CC, rather than within the 30-day period specified in 40 CFR 60.115b(a). *[Reference: 40 CFR 63.640(n)(8)(v)]* viii. Certification: None in addition to those listed in Condition 3(c)(3) of this permit.

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
that allows for passage of a column supporting the roof shall have a flexible fabric sleeve or a gasketed sliding cover. *[Reference: 40 CFR 60.112b(a)(1)(viii) dated 10/8/97]* I. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. *[Reference: 40 CFR 60.112b(a)(1)(ix) dated 10/8/97]* iii. Operational Limitation for Tank 78-TC-78: The maximum true vapor pressure of the stored liquid shall not equal or exceed 0.75 psia. *[Reference: 40 CFR 60.112b(a) dated 8/11/89]*	storage vessel from service within 45 days. *[Reference: 40 CFR 60.113b(a)(2) dated 8/11/89]* F. If a failure is detected during the inspections and the vessel cannot be repaired within 45 days and the vessel cannot be emptied within 45 days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. The owner or operator is not required to provide a request for the extension to the Department. *[Reference: 40 CFR 63.640(n)(8)(iii) dated 5/25/2001]* G. If the owner or operator determines that it is unsafe to perform the tank inspections because the roof appears to be structurally unsound and poses an imminent danger to inspecting personnel, the owner or operator shall comply with the requirements in either 40 CFR 63.120(b)(7)(i) or 40 CFR 63.120(b)(7)(ii) of 40 CFR Part 63 Subpart G. *[Reference: 40 CFR 63.640(n)(8)(ii) dated 5/25/2001]* For Tank 470-TF-50: H. Monitor the equivalent turnovers of Tank 470-TF-50. vi. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator shall maintain the following records: A. Rolling twelve month VOC emissions from Tank 470-TF-50 based on equivalent turnovers calculated quarterly. *[Reference: APC-81/0120(A2)]* B. Records of all inspections performed as required by the Monitoring/Testing requirements. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	each component of the control equipment. *[Reference 40 CFR 60.115b(a) dated 8/11/89 and 7 **DE Admin Code** 1124 Section 31.5.1.3 dated 11/29/94]* C. Records of the type of VOL stored and the maximum true vapor pressure of that VOL during the respective storage period. *[Reference: 40 CFR 60.116b(c) dated 10/15/03 and 7 **DE Admin Code** 1124 Section 31.5.1.1 & 31.5.1.2 & 5.2.2 & 5.2.3 dated 11/29/94]* D. Records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. *[Reference 40 CFR 60.116b(b) dated 10/15/2003]* E. For Tank 78-TC-78, records of the average monthly storage temperature. *[Reference 7 **DE Admin Code** 1124 Section 31.5.2.1 dated 11/29/94]*	
fe. Emissions Unit 40: Refinery Tank Farm Units With Fixed Roofs Subject to 40 CFR part 63, Subpart CC and 40 CFR part 60, Subpart Ka: Tanks 60-TF-28, 61-TF-28, 471-TF-28, 581-TC-10, 582-TF-4, 583-TF-4, 584-TF-112 (Tanks 60-TF-28 and 61-TF-28 are Group 1 MACT Tanks that are to comply with the provisions of 40 CFR part 63, subpart CC as provided by 63.640(n)(5); Tank 581-TC-10 stores methanol and is subject to HON Requirements)		
1. **Volatile Organic Compounds (VOC).** i. Emission Standard for Tank 471-TF-28: VOC emissions from Tank 471-TF-28 shall not exceed 0.045 ton in any rolling twelve month period. *[Reference: APC-81/0120]* ii. Operational Limitations: A. The internal floating roofs shall rest on the surface of the liquid at all times except during initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and degassed, and subsequently refilled. The process of filling emptying or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.	iii. Compliance Method: A. Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* B. Compliance with Operational Limitations (A) and (B) shall be demonstrated by record keeping. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* C. **[RESERVED]** D. Compliance with Operational Limitation (D) shall be demonstrated by the proper operation of either process heater 41-H-1 or 42-H-1 at all times that vapors from Tank 581-TF-10 to either of these heaters. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]*	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. If any of the conditions described in 40 CFR 60.112a(a)(2) are detected during the annual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. [RESERVED]

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
Each opening in the internal floating roof except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface. Each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves is to be equipped with a cover, seal or lid which is to be in a closed position at all times except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Rim vents are to be set to open only when the cover is being off the leg supports or at the manufacturer's recommended setting. *[Reference: 40 CFR 60.112a(a)(2)] dated 12/18/80 and 40 CFR 63.119(b)(1) dated 1/17/97]* B. The maximum true vapor pressure of the stored liquid shall not exceed 11.1 psia. *[Reference: 40 CFR 60.112a(a) dated 12/18/80 and 40 CFR 63.119(b)(1) dated 1/17/97]* C. [**RESERVED**] D. Vapors from Tank 581-TC-10 shall be controlled by a closed vent system and control device at all times. *[Reference: 40 CFR 63.119(e) dated 1/17/97]* E. Any storage vessel that has continuously been out of service since before August 18, 1998, shall not be returned to HAP service until it satisfies the applicable MACT requirements in 40 CFR part 63, Subpart CC. *[Reference: 40 CFR Part 63, Subpart CC, Section 63.640(h)(4) dated 6/12/1996]*	E. Compliance with Operational Limitation (E) shall be demonstrated by satisfying the notification and reporting requirements. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* iv. Monitoring/Testing: A. For Tanks 60-TF-28, 61-TF-28, 206-TF-112, 471-TF-28, 581-TC-10, 582-TF-4, 583-TF-4, 584-TF-112: None other than those required by Condition 3 - Table 1.ff.1.vii.B. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. For Tank 471-TF-28: Monitor the equivalent turnovers. *[Reference: APC-81/0120]* 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. Rolling twelve month VOC emissions from Tank 471-TF-28 calculated quarterly. *[Reference: APC-81/0120]* B. Records of the type of petroleum liquid stored, the period of storage and the maximum true vapor pressure of that liquid during the respective storage period. *[Reference: 40 CFR part 60, Subpart Ka, Section 115a]*	C. The reports listed below for the MACT Tanks: 1. A Notification of Compliance Status report as described 40 CFR 654(f); 2. Periodic Reports as described in 40 CFR 654(g); and 3. Other reports as described in 40 CFR 654(h). 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the reporting requirements in 40 CFR 63.654(f)(1)(i). *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 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]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
ff. **Emissions Unit 40: Refinery Tank Farm Units With Fixed Roofs Subject to Regulation 1124, Section 31 and 40 CFR Part 63, Subpart CC:** Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, 077-TC-78, 078-TC-78, 139-TC-50, 149-TC-50, 150-TC-78, 244-TC-78, 245-TC-78, 246-TC-78, 264-TC-78, 265-TC-78, 266-TC-78, 390-TC-M, 405-TC-28, 406-TC-28, 407-TC-28, 408-TC-28, 441-TC-M, 442-TC-M, 443-TC-M, 444-TC-M, 445-TC-M, 446-TC-M, 447-TC-M, 482-TC-M, 581-TC-10, 060-TF-28, 061-TF-28, 071-TF-28, 202-TF-50, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112. Tanks 047-TF-78, 60-TF-28, 61-TF-28 and 71-TF-28 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4 and 584-TF-4 are not Subject to MACT Requirements; all other Tanks are MACT Tanks. Tanks 571-TC-5 and 572-TC-5 are also subject to 40 CFR Subpart K.		
1. **Volatile Organic Compounds (VOC).** i. Equipment Standard for Tanks 047-TF-78, 060-TF-28, 061-TF-28, 071-TF-28, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112: The internal floating roof shall be equipped with a closure seal or seals to close the space between the roof edge and tank wall. *[Reference: 7 **DE Admin Code** 1124, Section 31.c.1.i. dated 11/29/94]* ii. Operational Limitations for Tanks 047-TF-78, 060-TF-28, 061-TF-28, 071-TF-28, 202-TF-50, 470-TF-50, 471-TF-28, 582-TF-4, 583-TF-4, 584-TF-112: A. The tank is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials. *[Reference: 7 **DE Admin Code** 1124, Section 31.c.2. dated 11/29/94]* B. All openings, except stub drains, are equipped with covers, lids, or seals such that: *[Reference: 7 **DE Admin Code** 1124, Section 31.c.3 dated 11/29/94]* 1. The cover, lid, or seal is in the closed position at all times except when in actual use. 2. Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports. 3. Rim vents, if provided, are set to open	vi. Compliance Method: A. Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements and the following requirements: *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* B. Compliance with Tank 047-TF-78's Emission Limitation in section (v) shall be demonstrated by using EPA's Tanks 4.09 Program or an updated equivalent methodology approved by the Department, using monthly liquid throughput and the monthly average storage temperature. *[Reference: **Permit:** APC-80/0869(A6) Cond. No. 4.3]* vii. Monitoring/Testing: A. The Owner/Operator shall carry out the following inspections for tanks equipped with a single seal system: 1. Visually inspect the internal floating roof and its closure seal or seals through roof hatches at least once every 12 months. 2. Perform a complete inspection of any cover and single seal whenever the tank is emptied for non-operational reasons or at least every 10 years, whichever is more frequent. B. For tanks equipped with a double seal system: 1. Visually inspect the internal floating roof and its closure seal or seals through the	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. If any of the conditions described in 7 **DE Admin Code** 1124, Section 31.3 are detected during the annual inspection, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* B. **[RESERVED]** C. The reports listed below for the MACT Tanks: *[Reference: 40 CFR 63.654(e) dated 8/18/1998]* 1. A Notification of Compliance Status report as described in 40 CFR 63.654(f); 2. Periodic Reports as described in 40 CFR 63.654(g); and 3. Other reports as described in 40 CFR 63.654(h). 4. In the event an out of service tank is being returned to HAP service, the Owner/Operator shall comply with the

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. iii. Operational Limitations for Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, 077-TC-78, 078-TC-78, 139-TC-50, 149-TC-50, 150-TC-78, 244-TC-78, 245-TC-78, 246-TC-78, 264-TC-78, 265-TC-78, 266-TC-78, 390-TC-M, 405-TC-28, 406-TC-28, 407-TC-28, 408-TC-28, 441-TC-M, 442-TC-M, 443-TC-M, 444-TC-M, 445-TC-M, 446-TC-M, 447-TC-M, 482-TC-M, 581-TC-10: The maximum true vapor pressure of the stored petroleum liquid shall not exceed 1.5 psia. However, for Tanks 045-TC-153, 062-TC-28, 066-TC-112, 075-TC-78, 076-TC-78, and 077-TC-78, if the maximum true vapor pressure of the stored petroleum liquid exceeds 1.0 psia, then the Owner/Operator shall keep records as described in Section (vi)(B). *[Reference: 7 **DE Admin Code** 1124, Section 31.a.2.iii. dated 11/29/94]* iv. Operation Limitation for all tanks: Any storage vessel that has continuously been out of service since before August 18, 1998, shall not be returned to HAP service until it satisfies the applicable MACT requirements in 40 CFR part 63, Subpart CC. *[Reference: 40 CFR Part 63, Subpart CC, §63.640(h)(4) dated 6/12/1996]* v. Emission Limitations for Tank 047-TF-78: A. [**RESERVED**] B. For Tank 47-TF-78: VOC emissions shall not exceed those specified in Condition 3 – Table 1.fb.iii.A. *[Reference: APC-80/0868(A3)]* C. For Tank 47-TF-78: The requirements of **Permit: AQM-003/00016 – Part 2** Condition 3 – Table 1.oa shall apply to the	roof hatches at least once every 5 years. 2. Perform a complete inspection of any cover and double seal whenever the tank is emptied for non-operational reasons or at least every 5 years, whichever is more frequent. viii. 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 the following records in a readily accessible location for at least 5 years and shall make copies of the records available to the Department upon verbal or written request: 1. Records of the types of volatile petroleum liquids stored in that tank. 2. Records of the maximum true vapor pressure of the liquid as stored. 3. Records of the results of the inspections required in paragraph (d) of this Section. B. For fixed roof tanks exempted from Regulation No. 1124, Section 31, but containing a petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psia), shall maintain the following records in a readily accessible location for at least 5 years and shall make copies of the records available to the Department upon verbal or written request: 1. Records of the average monthly storage temperature. 2. Records of the type of liquid stored. 3. Records of the maximum true vapor pressure for any petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psia).	reporting requirements in 40 CFR 63.654. x. 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]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
new fugitive VOC sources associated with this tank. *[Reference: APC-80/0868(A3)]*		
fg. Emissions Unit 40: Refinery Tank Farm Units Subject to Special Odor Prevention Measures: Tanks 44-TF-112, 45-TC-152, 47-TF-78, 48-TF-112, 50-TF-78, 51-TF-78, 60-TF-28, 61-TF-28, 62-TC-28, 71-TF-28, 72-TF-50, 73-TF-78, 414-TC-M, 416-TF-3, 470-TF-50, 471-TF-28		
1. **Odor Control – State Enforceable Only.** i. Operational Limitations: A. A floating layer of oil at least 1 foot thick must be maintained to control odors from Tanks 470-TF-50 and 471-TF-28. *[Reference: APC-81/0120 Cond. No. 11]* B. The oil layer shall be replaced if hydrogen sulfide is detected in tank vapor space during the weekly tank inspection. *[Reference: APC-81/0120]* C. The oil layer thickness shall be gauged every month when Tanks 470-TF-50 and 471-TF-28 are checked for sediment readings. *[Reference: APC-81/0120]* D. Tanks 470-TF-50, 471-TF-28, 414-TC-M and 416-TC-3: Each day a formal documented inspection shall be performed by an operator making a "walk-around" inspection of the tank base and by climbing each tank and viewing each roof. *[Reference: Letter from R.G. Soehlke to DNREC Acting Secretary John Hughes dated 2/28/89]* E. Tanks 44-TF-112, 45-TC-152, 047-TC-78, 48-TF-112, 50-TF-78, 51-TF-78, 60-TF-28, 61-TF-28, 62-TC-28, 71-TF-28, 72-TF-50, 73-TF-78: Each week a formal documented inspection shall be performed by an operator making a "walk-around" inspection of the tank base and by climbing each tank and viewing each roof. *[Reference: Letter from R.G. Soehlke to DNREC Secretary Jon Hughes dated 2/28/89]* F. Tank 470-TF-50 shall be monitored in	ii. Compliance Method: Compliance with the operation limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1, dated 12/11/00]* iii. Monitoring/Testing: In addition to that described under the Operational Limitations: A. Compliance with Operational Limitation (G) shall be demonstrated weekly by a H_2S Draeger tube that displays a reading less than 10 ppm. Readings of 10 ppm or greater is indicative of an odor problem and the carbon beds shall be regenerated. *[Reference: Star Enterprise's "Carbon Canister Monitoring at Offtest and Sour Water Tanks" submitted as Attachment "A" of Permit: APC-81/0120 and APC-81/0120]* 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. A hard bound log book or electronic record shall be designated to record the following information: tank number, date, operator's initials making the inspection, and pertinent findings. *[Reference: APC-81/0120]*	v. Reporting: Comply with 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]* vi. 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]*

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Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
accordance with the requirements of API Recommended Practice 651 - Cathodic Protection of Aboveground Petroleum Storage Tanks and in accordance with NACE Recommended Practice RP0193-93 - External Cathodic Protection of On-Grade Metallic Storage Tank Bottoms. *[Reference: APC-81/0120]* G. Proper operation of the Conservation Vent and Carbon Adsorption Bed of Tank 471-TF-28 shall be considered a necessary part of acceptable storage tank operation in accordance with the Notice of Conciliation Proceedings and Penalty dated February 10, 1989 signed by Acting Secretary John Hughes for the Department, R.G. Soelkhe for Star Enterprise and Robert A. Cap for Texaco Refining and Marketing, Inc. *[Reference: Star Enterprise's "Carbon Canister Monitoring at Offtest and Sour Water Tanks" submitted as Attachment "A" of **Permit: APC-81/0120**]* H. Each tank shall be checked for the presence of liquid, vapor, or odor outside of the tank. Tanks that have a mixer (or transfer) pump(s), shall also be checked. *[Reference: APC-81/0120]*		
fh. **Reserved** **(formerly Process Heater 40-H-1)** (The unit has been demolished).		
fi. **Reserved Emissions Unit 40**: **(formerly Frozen Earth Storage System Flare)** Emission Point 40-1. This emission unit has been decommissioned.		
fj. **Emission Unit 40** – Ethanol Blending Project with a fixed roof tank equipped with an internal floating roof (Tank 206-TF-112) and ancillary equipment.		
1. Volatile Organic Compounds (VOC): i. Emission Limitations: VOC emissions from the Ethanol project shall not exceed 0.59 ton on a rolling 12 month basis,	iv. Compliance Method: A. Compliance with the emission limitation shall be demonstrated by using EPA's Tanks Version 4.09 or a Department approved method to estimate	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
inclusive of 0.38 from Tank 206-TF-112 and 0.21 ton of fugitive emissions from new components installed at the refinery for purposes of the Ethanol Blending Project. *[Reference: APC-80/0868-C/O Cond. No. 2.1.1]* ii. Emission Standard: The leak detection and repair requirements to control fugitive VOC emissions from the Ethanol Project shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for new and existing components in light liquid service and in accordance with 40 CFR Part 63 Subpart CC for new and existing components in light liquid Hazardous Air Pollutant (HAP) service. The leak detection and repair requirements to control fugitive emissions from the Ethanol Project shall be in accordance with the Consent Decree for both new and existing components in light liquid service. Applicable requirements are detailed in **Permit: AQM-003/00016 – Part 2**, Condition 3 – Table 1, in the section "Facility Wide Requirements for Fugitive VOC Emissions". *[Reference: APC-80/0868-C/O Cond. No. 2.1.2]* iii. Operational Standards for Tank 206-TF-112, a fixed roof tank with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge: A. The cover is to be floating at all times, (i.e., off the leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the cover is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. B. Each opening in the cover except for automatic bleeder vents and the rim space vents is to provide a projection below the liquid surface.	emissions from Tank 206-TF-112 and the results of the quarterly LDAR monitoring program using a Department approved method. *[Reference: APC-80/0868-C/O Cond. No. 4.1]* B. Compliance with the Emission Standard for new components in light liquid HAP service shall be based on compliance with the standards in 40 CFR 63.648. Compliance with the standards in 40 CFR 60, Subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592. Applicable requirements are detailed in **Permit: AQM-003/00016 – Part 2**, Condition 3 – Table 1, in the section "Facility Wide Requirements for Fugitive VOC Emissions". C. Compliance with the Operational Standards shall be based on the testing procedures in 40 CFR Part 115a. v. Record keeping: 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. Results of the rolling 12 month VOC emissions comprised of working and breathing loses from Tank 206-TF-112 and LDAR monitoring program pursuant to 40 CFR 60, Subpart GGG for existing components in light liquid service and in accordance with 40 CFR 63, Subpart CC for new components in light liquid service. Applicable requirements are detailed in **Permit: AQM-003/00016 – Part 2**, Condition 3 – Table 1, in the section "Facility Wide Requirements for Fugitive VOC Emissions". B. Results of the monitoring and testing required by Compliance Method C above. *[Reference: APC-80/0868-C/O Cond. No. 5]*	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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
Each opening in the cover except for automatic bleeder vents, rim space vents, stub drains and leg sleeves is to be equipped with a cover, seal, or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the cover is floating except when the cover is being floated off or is being landed on the leg supports. Rim vents are to be set to open only when the cover is being floated off the leg supports or at the manufacturer's recommended setting. *[Reference: APC-80/0868-C/O Cond. No. 3.1 and 40 CFR Part 60.112a(a)(2) dated 7/1/07]*		
g. **Emissions Unit 43**: Ether Plant Fugitive VOC Emissions; Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries; National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries; 40 CFR Part 63 Subpart CC Compliance through Standards of Performance for Equipment Leaks of VOC in SOCMI; Subpart VV and Facility-Wide Standards of Performance for Equipment Leaks of VOC in SOCMI.		
This unit has only fugitive emissions. Applicable requirements are detailed in **Permit: AQM-003/00016 – Part 2**, Condition 3 – Table 1, in the section "Facility Wide Requirements for Fugitive VOC Emissions".		
h. **Emission Units 99-1(a), 99-1(b), 99-1(c)**: Cold solvent degreasers.		
1. **Operational Standards.** i. A. For each cold solvent degreaser the Owner/Operator shall: 1. Equip the cleaner with a cover that is easily operated with one hand if the cleaning solvents used have a vapor pressure greater than 15mm Hg at 100 degrees F;	ii. Compliance Method: Compliance shall be demonstrated by monitoring/testing and record keeping requirements of this condition. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: A. The Material Safety Data Sheet supplied with each delivery of new solvent type shall be reviewed. ASTM D323-89 shall be the method	v. Reporting Requirement: 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 the requirements of 7 DE Admin Code 1124 Section 5.2 regarding reports of excess emissions.

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
2. Provide a permanent, legible, conspicuous label, summarizing the operation requirements; 3. Store waste solvent in covered containers; 4. Close the cover whenever the parts are not being handled in the cleaner; 5. Drain the cleaned parts until the dripping eases; 6. If used, supply a solvent spray that is a solid fluid stream at a pressure that does not exceed 10 psig; 7. Degrease only materials that are neither porous nor absorbent. *[Reference 7 **DE Admin Code** 1124, Section 33.3.1 dated 1/11/93]* B. The Owner/Operator shall not use any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform or any combination of these halogenated HAP solvents, in a total concentration greater that 5 percent by weight, as a cleaning and/or drying agent. *[Reference 40 CFR 63.460(a) dated 12/11/98]*	used for measuring solvent true vapor pressure. *[Reference 7 **DE Admin Code** 1124, Section 33.4.5 dated 1/11/93]* B. The concentration of the solvents listed in Operational Standard (B) may be determined using EPA Method 18, material safety data sheets, or engineer calculations. *[Reference 40 CFR 63.460(a) dated 12/11/98]* iv. Record Keeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Owner/Operator shall maintain copies of the manufacturer supplied Material Safety Data Sheet and other records showing the solvent content and the vapor pressure of the solvent used as determined by ASTM D323-89. *[Reference 7 **DE Admin Code** 1130, Section 6.1.3 dated 12/11/00]*	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]*
i. RESERVED		
The Owner/Operator shall comply with either Section ja or jb below.		
ja. Compliance Requirements for 7 DE Admin. Code 1142: The following emission units are subject to the NOx control requirements in 7 **DE Admin. Code 1442** - Crude Unit Vacuum Heater (Unit 21-H-2); Crude Unit Atmospheric Heater (Unit 21-H-701); Fluid Coking Unit Carbon Monoxide boiler (Unit 22-H-3); Steam Methane Reformer Heater (Unit 37-H-1); Continuous Catalyst Regenerator Reformer Heater (Unit 42-H-1,2,3); Boiler 1 (Unit 80-1); Boiler 2 (Unit 80-2); Boiler 3 (Unit 80-3); Boiler 4 (Unit 80-4); Fluid Catalytic Cracking Unit Carbon Monoxide (CO) boiler (Unit 23-H-3).		
1. Nitrogen Oxides (NO_X):		
i. Emission Standards: *[Reference 7 **DE Admin Code** 1142, Section 2.3.1 effective 4/11/11]* A. For Units 21-H-2, 21-H-701, 42-H-1,2,3 and	ii. Compliance Method: Compliance with the NO_x emission standards shall be determined based on CEMS. *[Reference 7 **DE Admin.***	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii) and 3(c)(2) of this permit.

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
80-2: NOx emissions shall not exceed 0.04 lb/mmbtu on a 24-hour rolling average basis except that the compliance date for Unit 42-H-1,2,3 shall not be effective before 12.31.2012. B. For Unit 80-1, 80-3 and 80-4: NOx emissions shall not exceed 0.015 lb/mmbtu on a 24-hour rolling average basis except that the compliance date for Units 80-3 and 80-4 shall not be effective before 05.01.2011. C. For 23-H-3: 20 ppmvd @ 0 % O2 on a 365 day rolling average basis, and 40 ppmvd @ 0 % O2 on a 7-day rolling average basis. D. For 22-H-3 and 37-H-1: RESERVED. E. Additional requirements in Attachment "F" of this permit.	*Code 1142, Section 2.4.1 dated 4/11/11]* iii. Monitoring/Testing The CEMS must be certified by satisfying Performance Specification 2 in 40 CFR, Part 60, Appendix "B" and the QA/QC requirements in 40 CFR Part 60, Appendix "F". *[Reference 7 **DE Admin. Code** 1142, Section 2.4.1 dated 4/11/11]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3 (b): *[Reference: 7 **DE Admin Code** 1130, section 6.1.3.2 dated 12/11/00]* A. Hourly and rolling 24 hour NOx emissions in terms of the applicable standard B. CEMS data calibration and audit results.	*[Reference: 7 **DE Admin Code** 1130, section 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin Code** 1130, section 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
jb. Facility-wide Emission Limit for Nitrogen Oxides (NO_x) Sources: For the purpose of the NOX Cap and its provisions, a source is defined as all NOX emitting operations at the facility including, but not limited to the collection of all boilers, process heaters, combustion turbines, flares and all insignificant combustion sources The following emission units are subject to a facility-wide emission limit for NO_x ("NOx Cap") (collectively the "NOx Cap Units") in accordance with the conditions provided in this section and the NOx Cap described in this permit will continue in effect in accordance with the provisions of 7 **DE Admin. Code 1142**: **Emission Unit No. 10** (Vapor Combustion Unit); **Emission Unit No. 15** (Marine Vapor Recovery (MVR) System); **Emission Unit No. 21** (Crude Unit Atmospheric Tower Heater 21-H-701, and Crude Unit Vacuum Tower Heater 21-H-2); **Emission Unit No. 22** (FCU, Wet Gas Scrubber (WGS), and Selective Non-Catalytic Reduction System (SNCR), FCU Start Up Heater 22-H-1, FCU Selas Steam Superheater 22-H-2, FCU Carbon Monoxide Boiler 22-H-3 and FCU Back Up Incinerator 22-H-4; **Emission Unit No. 23** (FCCU Reactor, Catalyst Regenerator, Start Up Heaters 23-H-1A and B, Carbon Monoxide Boiler 23-H-3 and Wet Gas Scrubber System); **Emission Unit No. 25** (Cracked Naphtha Hydrotreater (CNHT) Unit, Butamer Unit and Cooling Tower); **Emission Unit No. 28** (Sulfur Recovery Area (SRA): Claus Units I and II; Sulfur Pits and Shell Claus Offgas Treatment (SCOT) Units I and II); **Emission Unit No. 29** (Catalytic Hydrodesulfurizer Trains 29-1 through 29-5 and Process Heaters 29-H-101 and 29-H-2 through 29-H-9; **Emission Unit No. 32** (Process heater 32-H-101); **Emission Unit No. 33** (Selective Hydrogenation Unit and Process Heaters 33-H-1 and 33-H-2); **Emission Unit No. 34** (Olefins Plant and Process Heater 134-H-101); **Emission Unit No. 36** (Hydrocracker Unit, Process heaters 36-H-1, 36-H-2 and 36-H-3); **Emission Unit No. 37** (Steam Methane Reformer Hydrogen Plant, Heaters 37-H-1A/B); **Emission Unit No. 40** (Frozen Earth Storage System Flare); **Emission Unit No. 42** (Continuous Catalyst Regenerator (CCR) Reformer, Reformer Charge Heater 42-H-1,2,3 and Reboiler Heater 42-H-7); **Emission Unit No. 45** (Refinery utilities, North & South Flares and Gas Recovery System, Package Boilers); **Emission Unit No. 80** (Boiler #1, Boiler #2, Boiler #3 and Boiler #4; **Emission Unit No. 84** (Combined Cycle Unit #1 and Combined Cycle Unit #2); **Insignificant Emissions Units** listed in Attachment "C" of this Permit.		
1. Nitrogen Oxides (NO_X):		
i. Emission Standards: *[Reference: 7 **DE Admin. Code** 1125, Sections 2 and 3 dated 08/11/05 and 7 **DE Admin. Code** 1142, Section 2 effective 04/11/11]*	ii. Compliance Method *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.1 dated 12/11/00]*	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)

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
A. The initial NOx Cap for the Refinery shall be 2525 tons per year, evaluated over each twelve (12) consecutive month rolling period, commencing with the rolling twelve (12) consecutive month period comprised by calendar year (CY) 2011 and ending with the twelve (12) consecutive month rolling period that ends on December 31, 2013. B. The NOx Cap will be further reduced to 2225 tons per year, evaluated over each twelve (12) consecutive month rolling period comprising calendar year 2014. C. The NOx Cap will be further reduced to 1650 tons per year, evaluated over each twelve (12) consecutive month rolling period, commencing with the twelve (12) month rolling period beginning on January 1, 2015 and ending on December 31, 2015, and continuing thereafter. D. During the period of May 1 through September 30 of each calendar year (the "Ozone Season"), the Owner/Operator shall not cause or allow the emission of NO_x in excess of 1,500 TPY from the NOx Cap Units, combined. E. The plantwide applicability limit ("PAL") for the attainment pollutant, nitrogen dioxide ("NO_2") shall be 2,636 TPY. For the purpose of this emission standard, all NOx emissions shall be considered to be NO_2. F. In demonstrating compliance with the NOx Cap limitations identified in Condition 3 - Table 1.1.jb.i.A, B and C, the Owner/Operator shall account for NOx emissions from individual sources listed as insignificant in Appendix A of the 7 DE Admin. Code 1130 or identified in Appendix C of this permit pursuant to this provision. As of the issuance date of this permit, the Owner/Operator may assign to such insignificant sources, in the aggregate,	Compliance with the Emission Standards shall be as follows: A. Compliance with the Emission Standards shall be based on CEMS for the following units: • 21-H-1 • 21-H-701 • 22-H-3 • 23-H-3 • 37-H-1A/B • 42-H-1,2,3 • 80-1 • 80-2 • 80-3 • 80-4 • 84-1 • 84-2 The CEMs shall sample, analyze, and record data every fifteen minutes while the emission unit is operating. At a minimum, the CEMs shall capture a minimum of 90% of the operating data each month or 95% of the operating data each quarter. B. Compliance with the Emission Standards shall be based on the fuel usage and the determination and use of a NO_x emission factor based upon the results of the most recent performance testing conducted in accordance with a protocol approved by DNREC, for the following units: • 25-H-401 • 25-H-402 • 28-S-203 • 28-S-803 • 32-H-101 C. For 25-H-401 and 25-H-402, oxygen parametric monitoring may be used as an alternative method. Hourly average NOx emissions shall be calculated consistent with the methodologies of the Premcor submittals to the Department dated November 19,	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 and/or operator shall submit the following information with each Semi-Annual Report submitted pursuant to Condition 3(c)(2)(i) of Permit: AQM-003/00016 and any Renewals or Revisions of the permit: 1. Rolling twelve month total Plantwide NOX emissions in tons for each month covered by the report including fugitive emissions, to the extent quantifiable, from all emission units; and/or 2. The owner and/or operator shall record and report NOx emissions for those periods when the minimum data capture requirements in Condition jb.ii.A have not been met. The report shall provide all relevant assumptions and engineering calculations used in quantifying the emissions during such periods of insufficient data capture unless another method for determining emissions during such period is specified in the permit. 3. A list of any emissions units modified or added to the major stationary source during the preceding six month period including any pre-approved changes made pursuant to Condition 3.5 of this permit; 4. The number, duration, and cause of any deviation or monitoring malfunction; and 5. The number, duration, and cause of any shutdown of any monitoring system and calculation of NOX emissions during the shutdown. *[Reference 7 DE Admin. Code 1130 Section 6.1.7.5 dated 12/11/00]* B. The owner and/or operator shall submit the list of

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
1% of the NOx Cap limitation applicable during the relevant compliance period. Therefore, the aggregate NOx emissions that would be assigned, collectively, to these sources would be 25.25 tons per rolling twelve month period for purposes of demonstrating compliance with the NOx Cap specified in Condition 3 - Table 1.1.jb.i.A, B and C. Within six months of the date of issuance of this permit, the Owner/Operator shall develop and submit to the Department a report demonstrating the justification for reliance upon the 1% set aside value, or some alternative value proposed by the Owner/Operator, as a reasonable approximation of the aggregate contribution of NOx emissions from such insignificant sources toward the NOx Cap limitations. Such report shall include the basis for Owner/Operator's reasonable emission approximations for the insignificant sources. Such evaluation of insignificant sources will not require consideration of unit-specific emission projections where the Owner/Operator can demonstrate that NOx emissions from such sources are not material relative to the proposed 1% aggregate emission approximation value.	2007 and April 16, 2008 or by alternate methodologies approved by the Department. D. Fuel usage and published NO_X emission factors for such source or category of sources for all other affected units or any other method proposed by the Owner/Operator and approved by the Department. E. For purposes of demonstrating compliance with the NOx Caps the Owner/Operator shall account for NO_x emissions from permitted sources during all periods of startup, shutdown or malfunction of such equipment. To the extent that such emission rates are not measured by CEMS during such periods of startup, shutdown or malfunction, and to the further extent that performance testing for such source did not establish emission factors for such equipment reflective of operations during periods of startup, shutdown or malfunction, then the Owner/Operator shall estimate such emission rates from such source during any periods of startup, shutdown or malfunction in accordance with best engineering judgment, provided however that the Owner/Operator must report to the Department the basis for the Owner/Operator's emission projections in such instance, and DNREC may object to the Owner/Operator's emission estimation methodology. F. To the extent that any applicable federal regulatory standard governing the operation of a NO_x CEMS at the refinery requires data substitution methods relevant to compliance demonstrations under such applicable regulatory standard, the Owner/Operator need not utilize such data substitution procedures to determine NO_x emission rates from the relevant source at the Refinery during any period of CEMS outage or out-of-control periods for purposes of determining compliance with Emission Standards if	pre-approved changes made pursuant to Condition 3.5 of this permit with each annual compliance certification. *[Reference 7 DE Admin. Code 1130 Section 6.3.5.6 dated 12/11/00]* 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]*

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	the Owner/Operator can identify an alternative basis for estimating NO_x emissions from such source during such period of CEMS outage or out-of-control operation. G. To the extent that any applicable regulatory standard requires the Owner/Operator to conduct performance testing for NOx emissions for a specific source at the Refinery, the Owner/operator shall determine the NO_x emission rate for such source based upon the NO_x emission factor derived from the most recent performance test conducted in accordance with the applicable regulatory standard, provided however that the Owner/Operator may, at its election, conduct performance testing in addition to that required by applicable standards to establish a lower NO_x emission factor for such source to be used in demonstrating compliance with the NOx Caps provided however that the Owner/Operator must secure advanced approval from the Department of any proposed adjusted NO_x emission factor. The Department shall approve or disapprove any request made by the Owner/Operator for an adjusted emission factor within 90 days of receiving information from the Owner/Operator sufficient to allow the Department to determine the acceptability of such adjusted emission factor. H. Notwithstanding Compliance Methods A through D above, the owner/operator shall satisfy the unit specific compliance requirements otherwise specified in this permit. iii. Monitoring/Testing: *[Reference: 7* ***DE Admin Code*** *1130 Sections 6.1.3.1 dated 12/11/00]* A. The Owner/Operator shall comply with the individual Monitoring/Testing requirements provided in this permit for each NOx Cap Unit.	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	iv. Recordkeeping: *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. All necessary records to assess compliance with the emission standards shall be maintained for a period of 5 years. B. CEMS records, as applicable shall comprise of CEMS data, calibration and audit results. C. Parametric monitoring data or performance test data as applicable. D. Daily and monthly fuel usage and the applicable emission factor used in calculating monthly emissions. E. Records of monthly NOx emissions from each NOx emissions unit under the facility-wide NOx cap and the rolling twelve month NOx emissions from each NOx emissions unit under the facility-wide NOx cap. The NOx emissions from each NOx emissions unit under the facility-wide NOx cap shall be summed up and compared to the applicable NOx cap limit. F. Records of all periods of startup, shutdown and malfunction for each NOx Cap Unit, in addition to such other information concerning such startup, shutdown or malfunction event necessary to determine emissions from such source. G. The Owner/Operator shall comply with the individual Recordkeeping requirements provided in this permit for each NOx Cap Unit and shall maintain the rolling twelve (12) month NO_x emission data in accordance with Condition 3(b). H. The owner and/or operator shall immediately notify the Department of discovery of any exceedance of the NOx Cap and shall submit to the Department within thirty days of discovery a report that identifies the following:	

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
	1. The cause of the exceedance; 2. The actions that the owner and/or operator shall take to correct the violation; and 3. A schedule to correct the violation. I. Compliance with the NOX PAL shall be calculated and recorded within thirty calendar days of the end of each month based upon the previous twelve month rolling period. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.3.3.4 dated 12/11/00]*	
jc. NOx Cap (PAL) Provisions: This permit condition provides a Plant-wide Applicability Test for New Source Review purposes		

1. **[RESERVED]**
2. **[RESERVED]**
3. **[RESERVED]**
4. **[RESERVED]**
5. **[RESERVED]**
6. The NOx Cap shall remain in effect until the date of expiration of this permit.
   - 6.1 Compliance with the NOx Cap limitation in this permit shall constitute compliance with Sections 2 and 3 of 7 DE Admin. Code 1125 with respect to these pollutants;
   - 6.2 The owner and/or operator may request to continue the NOx Cap by submitting a request for renewal at least six months prior to, but not earlier than eighteen months prior to, the date of permit expiration. If the owner and/or operator submits a complete application to renew the NOx Cap within this time period (between DATE and DATE), then the NOx Cap shall continue to be effective until the revised permit with the renewed NOx Cap is issued.
     - 6.2.1 The extension of the permit terms under 6.2 cannot remain in effect beyond a date ten years from issuance of the NOx Cap. If the NOx Cap has not been reevaluated and reissued by that date it shall expire.
   - 6.3 If the potential to emit NOx from all stationary sources at the facility subject to the NOx Cap is less than the limitations set in the NOx Cap, the Department shall adjust the limitations in the NOx Cap, as applicable, to a level no greater than the potential to emit.
   - 6.4 The Department shall not approve a renewed NOx Cap limitation at a limit higher than that given in Condition jb.1.i unless the owner and/or operator has complied with the requirements given in Condition 8 of this section of this permit.
   - 6.5 If the Department has not already lowered the NOx Cap limitations as necessary based upon the requirements of Condition 1.6 of this section of this permit, the NOx Cap limitations shall be lowered at the time of permit renewal.
   - 6.6 If the NOx Cap is not renewed in accordance with the requirements of Condition 6.2, the NOx Cap shall expire at the end of the NOx Cap effective period, and the requirements below shall apply:
     - 6.6.1 Each emissions unit (or each group of emissions units) that existed under the NOx Cap shall comply with an allowable emission limitation under a revised permit established according to the procedures in Conditions 6.6.1.1 and 6.6.1.2:
       - 6.6.1.1 Within the time frame specified for NOx Cap renewals in Condition 6.2 of this section of the permit, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Administrator) by distributing the NOx Cap allowable emissions for the major stationary source among each

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
of the emissions units that existed under the NOx Cap. If the NOx Cap had not yet been adjusted for an applicable requirement that became effective during the NOx Cap effective period, such distribution shall be made as if the NOx Cap had been adjusted. 6.6.1.2 The Department shall decide whether and how the NOx Cap allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Department determines is appropriate. 6.6.2 Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Department may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation. 6.6.3 Until the Department issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the NOx Cap emission limitation. 6.6.4 Any physical change or change in the method of operation at the major stationary source will be subject to major NSR requirements if such change meets the definition of major modification in 40 CFR 52.21 (b)(2). 6.6.5 The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the NOx Cap effective period or prior to the NOx Cap effective period except for those emission limitations that had been established pursuant to paragraph 40 CFR 52.21 (r)(4), but were eliminated by the NOx Cap in accordance with the provisions in 40 CFR 52.21 (aa)(1)(ii)(c). *[Reference 7 **DE Admin. Code** 1130 Section 6.1.2.1 dated 12/11/00 and Section 7.3.1 dated 12/11/00 and 40 CFR 52.21(aa)(7) dated 6/3/2010]* 7. The NOx Cap provisions of this permit may be reopened to: *[Reference 7 **DE Admin. Code** 1130 Section 7.6 dated 12/11/00]* 7.1 Reduce the NOx Cap to create emission reductions for offset purposes; 7.2 Reduce the NOx Cap to reflect newly applicable Federal and State requirements with compliance dates after the PAL effective date; or 7.3 Reduce the NOx Cap for any pollutant consistent with any other requirement that may be imposed under the State Implementation Plan (SIP). 7.4 Any downward adjustment that is required under Condition 3.2.2 or 3.2.3 will be based upon the contribution of the affected source(s) to actual emissions at the time the rule goes into effect. 8. The owner and/or operator shall not construct new stationary sources, modify existing stationary sources, or operate existing stationary sources such that the NOx Cap is exceeded. The owner and/or operator shall comply with 7 **DE Admin. Code** 1125, "Preconstruction Review", for any proposed activity that necessitates an increase in the NOx Cap in accordance with the following provisions: *[Reference 7 **DE Admin. Code** 1102, Section 12.4 dated 6/11/2006 and 7 **DE Admin. Code** 1130 Section 7.4 dated 12/11/2000]* 8.1 The owner and/or operator shall demonstrate that significant and major emission units at the facility meet Best Available Control Technology (BACT), equivalent BACT, or an equivalent level of control for each pollutant that an increase is being requested for: 8.1.1 The demonstrations shall be in the form of a BACT analysis unless the emissions unit is currently subject to a current (i.e. within the past ten years) BACT or Lowest Achievable Control Technology (LAER) requirement; 8.1.2 The owner and/or operator shall demonstrate to the Department's satisfaction that is not economically feasible to reduce emissions of the NOx Cap by further controlling emission units at the facility. 8.2 A new emissions unit that necessitates an increase in the NOx Cap shall be treated as a new major source and shall comply with 7 **DE Admin. Code** 1125. 8.3 The air quality impacts analysis as shown in 40 CFR 51.166(m) (July 1, 2005 edition) shall demonstrate that the increase will not cause or contribute to a National Ambient Air Quality Standard (NAAQS) or Prevention of Significant Deterioration (PSD) increment exceedance. 8.4 Revisions to the NOx Cap shall be incorporated into the facility's Title V Permit in accordance with the provisions of 7 **DE Admin. Code** 1102 Section		

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
12.4 and 7 DE **Admin. Code** 1130 Section 7.4. 8.5 The increased NOx Cap level shall be effective upon the date of incorporation into the facility's Title V Permit. 9. The provisions of 7 **DE Admin. Code** 1125 Sections 1 through 3 shall not apply to emissions units that that are proposed modifications with increases in associated NOX emissions or to proposed new emission units so long as the Plantwide Applicability Limits in Condition 2.1 are not exceeded. Except for the pre-approved changes described in Condition 3.5 of this permit, 7 **DE Admin. Code** 1125 Section 4, "Minor New Source Review", shall continue to apply to emission units that are proposed modifications with increases in associated NOX emissions or to proposed new emission units. A complete application meeting all of the requirements of 7 **DE Admin. Code** 1125 Section 4 and 7 **DE Admin. Code** 1102 shall be submitted with sufficient information for public notice. The owner and/or operator shall specifically follow the requirements of 7 **DE Admin. Code** 1102 Section 12.4 and 7 **DE Admin. Code** 1125 Section 4 in order for the terms and conditions of the construction permit to be transferred into the 7 **DE Admin. Code** 1130 permit via the administrative amendment process specified in 7 **DE Admin. Code** 1130 Section 7.4. *[Reference 7 **DE Admin. Code** 1125 Section 4.0 dated 8/11/05, 7 DE **Admin. Code** 1102 Section 11.0 dated 6/11/06 and Section 12.4 dated 6/11/06, and 7 **DE Admin. Code** 1130 Section 7.4 dated 12/11/00]* 10. The following Pre-Approved Changes shall be treated as alternate operating scenarios. The owner and/or operator is approved to make the changes listed under Conditions 9.1 and 9.2 of this section so long as the NOx Cap is not exceeded and the activity will not result in a newly constructed or reconstructed major source of hazardous air pollutants as defined in and subject to 40 CFR Part 63.2 and Part 63.5(b)(3), National Emission Standards for Hazardous Air Pollutants. The owner and/or operator shall comply with all certification, monitoring, testing, record keeping, and reporting requirements listed in this permit for the following pre-approved changes. Any change that is subject to a new applicable requirement that is not listed in this permit shall prior to implementation comply with the permit revision procedures of this permit so long as to incorporate the new requirement into the permit. 10.1 Conventional Pre-Approved Changes *[Reference 7 **DE Admin. Code** 1130 Section 6.8 dated 12/11/00]* 10.1.1 The emission unit is replaced in kind or replaced with a unit with inherently lower emissions; 10.1.2 Operational changes which will not increase any short term NOX emission limit established in **Permit: AQM-003/00016** or any renewals or revisions thereof for NOX; and 10.1.3 Any of the exemptions listed under 7 **DE Admin. Code** 1102 Appendix A. 10.2 PAL Pre-Approved Changes 10.2.1 In-kind replacement of an emissions unit or replacement with an inherently lower emitting unit. 10 Any activity that will result in a newly constructed or reconstructed major source of hazardous air pollutants (HAPs) as defined in and subject to 40 CFR Part 63.2 and 63.5(b)(3), National Emission Standards for Hazardous Air Pollutants, shall submit a registration in accordance with Section 9 of 7 DE **Admin. Code** 1102 or a permit application in accordance with Section 11 of 7 **DE Admin. Code** 1102 and receive approval from the Department prior to initiating the change.) *[Reference 7 **DE Admin. Code** 1102 Section 9.0 dated 6/1/97 and Section 11.0 dated 6/11/06]* 11. Any activity initiated under Condition 9 that involves the installation of new emission units as part of the source defined in Condition jb.1.i shall submit: 11.1 A registration in accordance with Section 9 of 7 **DE Admin. Code** 1102; or 11.2 A permit application in accordance with Section 11 of 7 **DE Admin. Code** 1102 and the following provisions: 11.2.1 The new emission units, as applicable, shall comply with 7 **DE Admin. Code** 1125 Section 4; 11.2.2 Any air pollution control technology requirements that result from the application of 7 **DE Admin. Code** 1125 Section 4 shall be reflected in the operating permit; 11.2.3 No additional unit specific NOx emission rate requirements will be added to the NOx Cap permit so long as NOx Cap limits are not exceeded ; and 11.2.4 Forty-five days following the public notice, unless the Department objects or issues supplemental conditions, the project with be automatically approved. Should a public hearing be requested, the automatic approval process will cease. *[Reference 7 **DE Admin. Code** 1102 Section 9.0 dated 6/1/97 and Section 11.0 dated 6/1/06 and 7 **DE Admin. Code** 1125 Section 4.0 dated 8/11/05]*		

Condition 3 - Table 1 (Specific Requirements)

Emission Limitations/Standards and/or Operational Limitations/Standards	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)	Reporting/Compliance Certification
11. The Department shall determine the need for unit specific emission factors, in accordance with Condition 7 above, for any new NOX emitting emission unit constructed after issuance of this permit or for any modification to an existing NOX emission unit that will be covered under the NOx Cap. Unit specific emission factor requirements for any new NOX emitting unit or for any modification to an existing NOX emission unit will be covered in the new unit's construction permit and will be incorporated into **Permit: AQM-003/00016** or any renewal or revision thereof.		

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Condition 4. Operational Flexibility

a. In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3 – Table 1 of this permit, the Owner and/or Operator is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change:

1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and *[Reference: 7 **DE Admin. Code** 1130 Section 6.8 dated 12/11/00]*
2. Does not involve a change in any compliance schedule date; and *[Reference: 7 **DE Admin. Code** 1130 Section 6.8 dated 12/11/00]*
3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8 dated 12/11/00]*

b. Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

c. The Owner and/or Operator shall keep records of any changes made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.8.1 dated 12/11/00]*

Condition 5. Compliance Schedule.

This permit does not contain a compliance schedule. *[Reference: 7 **DE Admin. Code** 1130 Section 6.3.3 dated 12/11/00]*

Condition 6. Permit Shield.

Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements as provided in Condition 6 -Table 1 as of the effective date of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.6.3 dated 12/11/2000]*

Condition 6 – Table 1 – Part 1

Emission Unit	Applicable Requirement
1. Emission Unit 29	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1112 Section 4.1 vi. 7 **DE Admin. Code** 1114 Section 2.1 vii. 7 **DE Admin. Code** 1119 viii. 7 **DE Admin. Code** 1120 Section 1.2, 1.3, 1.4 and 11 ix. 7 **DE Admin. Code** 1124 Sections 1-10, 28 and 29 x. 40 CFR Part 60 Subpart J xi. 40 CFR Part 60 Appendix B xii. 40 CFR Part 6 Appendix F
2. Emission Unit 32	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103

Emission Unit	Applicable Requirement
	iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1112 vi. 7 **DE Admin. Code** 1114 Section 2.1 vii. 7 **DE Admin. Code** 1119 viii. 7 **DE Admin. Code** 1121 Sections 14 and 15 ix. 7 **DE Admin. Code** 1124 Section 1-10, 28, 29 and 50 x. 40 CFR Part 61 Subpart J xi. 40 CFR Part 61 Subpart V xii. 40 CFR Part 61 Subpart Y xiii. 40 CFR Part 61 Subpart BB xiv. 40 CFR Part 63 Subpart F xv. 40 CFR Part 63 Subpart G xvi. 40 CFR Part 63 Subpart H xvii. 40 CFR Part 63 Subpart CC
3. Emission Unit 33	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1112 vi. 7 **DE Admin. Code** 1114 Section 2.1 vii. 7 **DE Admin. Code** 1119 viii. 7 **DE Admin. Code** 1124 Section 1-10, 28 and 29 ix. 40 CFR Part 60 Subpart GGG
4. Emission Unit 34	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1112 vi. 7 **DE Admin. Code** 1114 Section 2.1 vii. 7 **DE Admin. Code** 1119 viii. 7 **DE Admin. Code** 1120 ix. 7 **DE Admin. Code** 24 Section 1-10, 28, 29 and 30 x. 40 CFR Part 60 Subpart Kb xi. 40 CFR Part 60 Appendix B xii 40 CFR Part 60 Appendix F xiii. 40 CFR Part 63 Subpart CC
5. Emission Unit 36	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1112 vi. 7 **DE Admin. Code** 1114 Section 2.1 vii. 7 **DE Admin. Code** 1119 viii. 7 **DE Admin. Code** 1124 Sections 1-10, 28 and 29
6. Emission Unit 40	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1108 v. 7 **DE Admin. Code** 1114 Section 2.1

Emission Unit	Applicable Requirement
	vi. 7 **DE Admin. Code** 1119 vii. 7 **DE Admin. Code** 1120 Sections 13 and 27 viii. 7 **DE Admin. Code** 1124 Sections 1-10, 30 and 31 ix. 40 CFR Part 60 Subpart Ka x. 40 CFR Part 60 Subpart Kb xi. 40 CFR Part 63 Subpart CC
7. Emission Unit 43	i. 7 **DE Admin. Code** 1102 ii. 7 **DE Admin. Code** 1103 iii. 7 **DE Admin. Code** 1104 Section 2.1 iv. 7 **DE Admin. Code** 1119 v. 7 **DE Admin. Code** 1120 Section 1.2, 1.3, 1.4 and 22 vi. 7 **DE Admin. Code** 1124 Sections 1-10, 28 and 29 vii. 40 CFR Part 60 Subpart GGG viii. 40 CFR Part 60 Subpart QQQ ix. 40 CFR Part 63 Subpart CC
8. Facility-wide	i. 7 **DE Admin. Code** 1103 ii. 7 **DE Admin. Code** 1104 Section 2.1 iii. 7 **DE Admin. Code** 1117 Section 2.2 and 7 iv. 7 **DE Admin. Code** 1119 Section 2.1 v. 7 **DE Admin. Code** 1124 Section 1-10, 9, 28, 29, 40 and 50 vi. 40 CFR Part 60 Subpart VV vii. 40 CFR Part 63 Subpart CC

Condition 6 – Table 2 – Part 2

Emission Unit	Applicable Requirement
1. Emission Unit 10	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1108, section 2.1 v. **7 DE Admin. Code** 1112, Section 4.1 vi. **7 DE Admin. Code** 1114, Section 2.1 vii. **7 DE Admin. Code** 1120 viii. **7 DE Admin. Code** 1124, Sections 1-10, 26, 28, 29 and 36 ix. 40 CFR Part 60, Subpart J x. 40 CFR Part 60, Subpart QQQ xi. 40 CFR Part 62, Subpart FF xii. 40 CFR Part 63, Subpart CC

Emission Unit	Applicable Requirement
2. Emission Unit 15	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1108, Section 2.1 v. **7 DE Admin. Code** 1112 vi. **7 DE Admin. Code** 1114, Section 2.1 vii. **7 DE Admin. Code** 1117, Section 2.2 viii. **7 DE Admin. Code** 1120 ix. **7 DE Admin. Code** 1124, Section 1-10, 28, 29 and 43 x. 40 CFR Part 60, Subpart A xi. 40 CFR Part 60, Subpart J xii. 40 CFR Part 63, Subpart Y xiii. 40 CFR Part 63, Subpart CC
3. Emission Unit 21	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1108, Section 2.1 v. **7 DE Admin. Code** 1109, Section 1.1 vi. **7 DE Admin. Code** 1112 vii.**7 DE Admin. Code** 1114, Section 2.1 viii.**7 DE Admin. Code** 1117, Section 2.3 ix. **7 DE Admin. Code** 1120 x. **7 DE Admin. Code** 1124, Section 1-10 and 29 xi. **7 DE Admin. Code** 1125 xii. **7 DE Admin. Code** 1139 xiii. 40 CFR Part 60, Subpart J xiv. 40 CFR Part 60, Subpart VV xv. 40 CFR Part 60, Appendix B xvi. 40 CFR Part 60, Appendix F xvii. 40 CFR Part 63, Subpart CC
4. Emission Unit 22	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1105 v. **7 DE Admin. Code** 1108, Section 2.1 vi. **7 DE Admin. Code** 1109, Section 1.1 vii. **7 DE Admin. Code** 1111, Section 2.1 viii.**7 DE Admin. Code** 1112, Section 3 ix. **7 DE Admin. Code** 1114, Section 2.1 x. **7 DE Admin. Code** 1117, Section 2.3 xi. **7 DE Admin. Code** 1124, Section 1-10 and 29 xii. **7 DE Admin. Code** 1139 xiii. 40 CFR Part 60, Subpart VV xiv. 40 CFR Part 60, Appendix B xv. 40 CFR Part 60, Appendix F xvi. 40 CFR Part 63, Subpart CC

Emission Unit	Applicable Requirement
5. Emission Unit 23	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1105 v. **7 DE Admin. Code** 1108, Section 2.1 vi. **7 DE Admin. Code** 1109, Section 1.1 vii. **7 DE Admin. Code** 1111, Section 2.1 viii. **7 DE Admin. Code** 1114, Section 2.1 ix. **7 DE Admin. Code** 1117, Section 2.3 x. **7 DE Admin. Code** 1120 xi. **7 DE Admin. Code** 1124, Sections 1-10 and 29 xii. **7 DE Admin. Code** 1139 xiii. 40 CFR Part 60, Subpart VV xiv. 40 CFR Part 63, Subpart CC xv. 40 CFR Part 63, Subpart UUU
6. Emission Unit 24	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1120 iv. **7 DE Admin. Code** 1124, Section 1-10 and 29 v. 40 CFR Part 60, Subpart J vi. 40 CFR Part 60, Subpart VV vii. 40 CFR Part 60, Appendix B viii. 40 CFR Part 60, Appendix F ix. 40 CFR Part 63, Subpart CC
7. Emission Unit 25	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1105, Section 2.1 v. **7 DE Admin. Code** 1108, Section 2.1 vi. **7 DE Admin. Code** 1112, Section 3 vii. **7 DE Admin. Code** 1114, Section 2.1 viii. **7 DE Admin. Code** 1117, Section 2.3 ix. **7 DE Admin. Code** 1120 x. **7 DE Admin. Code** 1124, Sections 1-10 and 29 xi. 40 CFR Part 60, Subpart J xii. 40 CFR Part 60, Subpart VV xiii. 40 CFR Part 60, Appendix B xiv. 40 CFR Part 60, Appendix F xv. 40 CFR Part 63, Subpart CC
8. Emission Unit 28	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1105 v. **7 DE Admin. Code** 1108, Section 2.1 vi. **7 DE Admin. Code** 1109, Section 3

Emission Unit	Applicable Requirement
	vii. **7 DE Admin. Code** 1112 viii. **7 DE Admin. Code** 1114, Section 2.1 ix. **7 DE Admin. Code** 1117 x. **7 DE Admin. Code** 1120 xi. **7 DE Admin. Code** 1124, Sections 1-10 and 29 xii. 40 CFR Part 60, Subpart J xiii. 40 CFR Part 60, Subpart VV xiv. 40 CFR Part 60, Appendix B xv. 40 CFR Part 60, Appendix F xvi. 40 CFR Part 63, Subpart CC xvii. 40 CFR Part 63, Subpart UUU
9. Emission Unit 37	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1108, Section 2.1 v. **7 DE Admin. Code** 1112, Section 3 vi. **7 DE Admin. Code** 1114, Section 2.1 vii. **7 DE Admin. Code** 1117, Section 2.3 viii. **7 DE Admin. Code** 1124, Sections 1-10, 29 and 50 ix. **7 DE Admin. Code** 1139 x. 40 CFR Part 60, Subpart VV xi. 40 CFR Part 60, Appendix B xii. 40 CFR Part 60, Appendix F xiii. 40 CFR Part 60, Subpart CC
10. Emission Unit 42	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1103 iii. **7 DE Admin. Code** 1104, Section 2.1 iv. **7 DE Admin. Code** 1108, Section 2.1 v. **7 DE Admin. Code** 1112, Section 3 vi. **7 DE Admin. Code** 1114, Section 2.1 vii. **7 DE Admin. Code** 1117, Section 2.3 viii. **7 DE Admin. Code** 1120 ix. **7 DE Admin. Code** 1124, Section 1-10 and 29 x. **7 DE Admin. Code** 1139 xi. 40 CFR Part 60, Subpart J xii. 40 CFR Part 60, Subpart VV xiii. 40 CFR Part 60, Appendix B xiv. 40 CFR Part 60, Appendix F xv. 40 CFR Part 63, Subpart CC xvi. 40 CFR Part 63, Subpart UUU
11. Emission Unit 45	i. **7 DE Admin. Code** 1102 ii. **7 DE Admin. Code** 1104 iii. **7 DE Admin. Code** 1114, Section 2.1 iv. **7 DE Admin. Code** 1117, Section 2.1 and 2.2

Emission Unit	Applicable Requirement
	v. **7 DE Admin. Code** 1124, Section 1-10 and 29 vi. 40 CFR Part 60, Subpart A vii. 40 CFR Part 60, Subpart VV
12. Emission Units 24, 26, 27 and Facility-wide	i. **7 DE Admin. Code** 1103 ii. **7 DE Admin. Code** 1114, Section 2.1 iii. **7 DE Admin. Code** 1117, Section 2.2 and 7 iv. **7 DE Admin. Code** 1119, Section 2.1 v. **7 DE Admin. Code** 1124, Section 1-10, 9, 28, 29, 40 and 50 vi. 40 CFR Part 60, Subpart VV vii. 40 CFR Part 63, Subpart CC

Condition 6 – Table 3 – Part 3

Emission Unit	Applicable Requirement
1. Emission Unit 80 Boiler Nos. 1, 2 and 3	i. 7 **DE Admin. Code** 1104 Section 2.1 ii. 7 **DE Admin. Code** 1108 Section 2.1 iii. 7 **DE Admin. Code** 1112 Section 3.2 iv. 7 **DE Admin. Code** 1114 Section 2.1 v. 7 **DE Admin. Code** 1139
2. Emission Unit 80 Boiler No. 4	i. 7 **DE Admin. Code** 1104 Section 2.1 ii. 7 **DE Admin. Code** 1108 Section 2.1 ii. 7 **DE Admin. Code** 1112 Section 3.2 iii. 7 **DE Admin. Code** 1114 Section 2.1 iv. 7 **DE Admin. Code** 1136 and 40 CFR Part 72 v. 7 **DE Admin. Code** 1139
3. Emission Unit 82	i. 7 **DE Admin. Code** 1114 Section 2.1 ii. 7 **DE Admin. Code** 1124 Section 29 and 40 CFR Part 60 subpart VV iii. 40 CFR Part 60 Subpart A
4. Emission Unit 50	i. 7 **DE Admin. Code** 1105 Section 2
5. Emission Unit 84	i. 7 **DE Admin. Code** 1104 Section 2.1 ii. 7 **DE Admin. Code** 1108 Section 2.1 iii. 7 **DE Admin. Code** 1112 Section 3.5 iv. 7 **DE Admin. Code** 1114 Section 2.1 v. 7 **DE Admin. Code** 1120 Section 26 and 40 CFR Part 60 Subpart D6 vi. 7 **DE Admin. Code** 1120 Section 11 and 40 CFR Part 60 Subpart J vii. 7 **DE Admin. Code** 1120 Section 10 and 40 CFR Part 60 Subpart GG viii. 7 **DE Admin. Code** 1125 Section 2 ix. 7 **DE Admin. Code** 1139 Section 2

6. Facility-wide	i. 7 **DE Admin. Code** 1114 Section 2.1 ii. 7 **DE Admin. Code** 1117 Section 4 iii. 7 **DE Admin. Code** 1119 Section 2.1

Attachment "A"- Revision History

Part 1 Permit

Date	Number	Revision Type	Description	Pages Revised
	Renewal 2	Permit Renewal	Renewal of permit; updated to reflect operating conditions and limitations and regulations	--
4/5/2011	Revision 5	Significant	Consolidation of all 3 parts and incorporation of NOx PAL	Various
7/22/2010	Revision 4	Administrative Permit Amendment	Incorporate change of Responsible Official	1
4/1/2010	Revision 3	Administrative Permit Amendment	Incorporate change of Responsible Official	1
3/4/2010	Revision 2	Significant Permit Modification	Incorporate new requirements and remove non-existing units.	All pages
5/27/2008	Renewal 1	Permit Renewal	Renewal of permit; updated to reflect operating conditions and limitations and regulations.	--
11/10/2005	Revision 1	Administrative Permit Amendment	Incorporates change of Responsible Official	1
4/30/2002	Revision 2	Administrative Permit Amendment	Added two fuel sources for Train 29-H-2	17
3/20/2002	Revision 1	Significant Permit Modification	Incorporates Alternate Monitoring Plans for fuel combustion units per 40 CFR 60 Subpart J	17, 17a, 18, 70, 70a, 71, 102a, 103
11/14/2001			Original issuance	

Part 2 Permit

Date	Number	Revision Type	Description	Pages Revised
	Renewal 1	Permit Renewal	Renewal of permit; updated to reflect operating conditions and limitations and regulations	--
4/5/2011	Revision 5	Significant	Consolidation of all 3 parts and incorporation of NOx PAL	Various

7/22/2010	Revision 4	Administrative Permit Amendment	Incorporate change of Responsible Official	1
4/1/2010	Revision 3	Administrative Permit Amendment	Incorporate change of Responsible Official	1
03.04.2010	Revision 2	Significant		all pages
08.06.2008	Revision 1	Administrative	Change Responsible Official	1 and 160
05.27.2008			Original issuance	

Part 3 Permit

Date	Number	Revision Type	Description	Pages Revised
	Renewal 2	Permit Renewal	Renewal of permit; updated to reflect operating conditions and limitations and regulations	--
4/5/2011	Revision 5	Significant	Consolidation of all 3 parts and incorporation of NOx PAL	Various
7/22/2010	Revision 4	Administrative Permit Amendment	Incorporate change of Responsible Official	1
4/1/2010	Revision 3	Administrative Permit Amendment	Incorporate change of Responsible Official	1
3/4/2010	Revision 2	Significant Permit Modification	Significant modifications	all
8/6/2008	Revision 1	Administrative Permit Amendment	Incorporates change of Responsible Official	1, 59
5/27/2008	Renewal 1	Permit Renewal	Renewal permit issued	all
11/10/2005	Revision 1	Administrative Permit Amendment	Incorporates change of Responsible Official	1
4/11/2005			Original issuance	

ATTACHMENT "B"

[**RESERVED**]

ATTACHMENT "C"

AQM-1001CC/Group 1 Insignificant Activities

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Air contaminant detectors, Air contaminant recorders, combustion controllers and combustion shut-offs	(a)	No applicable federal or state requirement(s), hence no list required nor available.
Fuel-burning equipment which uses any fuel and has a rated heat input of less than 15 million BTUs per hour	(b)(1)	The stationary fuel burning sources less than 15 MMBtu/hr are included in AQM-1001A. Insignificant fuel burning activities not listed include: cooking fires, building HVAC, portable space heaters, portable igniters, etc. There are no applicable federal or state requirement(s), hence no list is required or available.
Internal Combustion Engine that Drives Compressors	(b)(2)	Internal combustion engines used to drive compressors are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Generators	(b)(2)	Internal combustion engines used to drive generators are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Water Pumps	(b)(2)	Internal combustion engines used to drive water pumps are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.
Internal Combustion Engine that Drives Other Auxiliary Equipment During Emergency or Standby Operations	(b)(2)	Internal combustion engines used to drive other auxiliary equipment are listed in the "Initial Compliance Certification" dated 01/24/94 for NOx RACT (see Appendix G). All equipment, if any, meeting this definition were deemed to be exempt.

ATTACHMENT "C"

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Air Conditioning and Comfort Ventilating Systems	(c)	No applicable federal or state requirement(s), hence no list required nor available.
Vacuum Cleaning Systems Used Exclusively for Office Applications	(d)	No applicable federal or state requirement(s), hence no list required nor available.
Ventilating or Exhaust Systems for Print Storage Room Cabinets	(e)	No applicable federal or state requirement(s), hence no list required nor available.
Exhaust System for Controlling Steam and Heat	(f)	No applicable federal or state requirement(s), hence no list required nor available.
Laboratories that conduct chemical or physical analysis or determination of product quality and commercial acceptance (not part of production process)	(g)	Laboratory constructed in 1956 and is exempt per DNREC Regulation No. 2; no applicable federal or state requirement(s), hence no additional information is required nor available.
Internal Combustion Engines and Vehicles Used for the transport of passengers or freight	(h)	No applicable federal or state requirement(s), hence no list required nor available.
Maintenance, repair or replacement-in-kind or equipment for which a permit to operate has been issued	(j)	This is merely an activity, hence no list required nor available.
Equipment which only emits elemental nitrogen, oxygen, carbon dioxide and/or water vapor	(k)	No applicable federal or state requirement(s), hence no list required nor available.
Ventilating and Exhaust Systems used in cafeterias and eating facilities	(l)	No applicable federal or state requirement(s), hence no list required nor available.
Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air	(m)	No applicable federal or state requirement(s), hence no list required nor available.

ATTACHMENT "C"

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Outdoor painting and sandblasting equipment	(p)	No applicable federal or state requirement(s), hence no list required nor available.
Lawn mowers, tractors, farm equipment and construction equipment	(q)	No applicable federal or state requirement(s), hence no list required nor available.
Any activity related to routine maintenance and repair of a facility where emissions would not be associated with a primary production process of the facility. Such activities may include	(s)	No applicable federal or state requirement(s), hence no list required nor available.
Cleaning	(s)(i)	No applicable federal or state requirement(s), hence no list required nor available.
Solvent Use	(s)(ii)	No applicable federal or state requirement(s), hence no list required nor available.
Steam Cleaning	(s)(iii)	No applicable federal or state requirement(s), hence no list required nor available.
Painting	(s)(iv)	No applicable federal or state requirement(s), hence no list required nor available.
Degreasing	(s)(v)	No applicable federal or state requirement(s), hence no list required nor available.
Washing	(s)(vi)	No applicable federal or state requirement(s), hence no list required nor available.

ATTACHMENT "C"

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Welding	(s)(vii)	No applicable federal or state requirement(s), hence no list required nor available.
Vacuuming	(s)(viii)	No applicable federal or state requirement(s), hence no list required nor available.
Coating	(s)(ix)	No applicable federal or state requirement(s), hence no list required nor available.
Sweeping	(s)(x)	No applicable federal or state requirement(s), hence no list required nor available.
Abrasive Use	(s)(xi)	No applicable federal or state requirement(s), hence no list required nor available.
Insulation Removal	(s)(xii)	No applicable federal or state requirement(s), hence no list required nor available.
Fire schools or fire fighting training	(t)	No applicable federal or state requirement(s), hence no list required nor available.
Buildings, cabinets and facilities used for storage of chemicals in closed containers	(u)	No applicable federal or state requirement(s), hence no list required nor available.
Gasoline storage tanks that have a capacity less than 2,000 gallons and that were constructed after January 1, 1979	(v)(ii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline storage tanks that have a capacity less than 250 gallons and that were constructed after December 31, 1978	(v)(iii)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).

ATTACHMENT "C"

Insignificant Activity/Description	Basis [1]	Insignificant Activity Details
Diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less	(w)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Gasoline and diesel fuel dispensing systems that never exceed a monthly throughput of 10,000 gallons	(x)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Inorganic acid storage tanks equipped with an emission control device	(z)	See either custom Form AQM-1001CC/Group 2 list or custom Form AQM-1001CC/Group 2 detail sheet(s).
Sewage treatment facilities	(aa)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Water treatment units	(bb)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Quiescent wastewater treatment operations	(cc)	See custom Form AQM-1001B for Unit 10 Waste water Treating Unit.
Non-contact water cooling towers	(dd)	See custom Form AQM-1001B for cooling tower sources
Laundry dryers, extractors, or tumblers used for fabrics cleaned with a water solution of bleach or detergents	(ee)	No applicable federal or state requirement(s), hence no list required nor available.
Equipment used for hydraulic testing or hydrostatic testing	(ff)	No applicable federal or state requirement(s), hence no list required nor available.
Blueprint copiers or photographic processes	(gg)	No applicable federal or state requirement(s), hence no list required nor available.

NOTE [1]: Basis codes refer to items in Delaware Regulation 30, Appendix A, Insignificant Activities List.

ATTACHMENT "C"

AQM-1001CC/Group 2-Insignificant Activities

Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
Motor Vehicle Diesel Loading	VOC	N/A	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
Motor Vehicle Gasoline Loading	VOC	8006-61-9	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x).
WWTP Wet Oil Sludge Loading	VOC	N/A	<25 TPY	a	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Ammonia Unloading	NH_3	7664-41-7	<25 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia Storage Tank 417-TP-M Used for Ph Control at Crude Unit	Ammonia	7664-41-7	<10 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Ammonia-Mobile Trailers (Hydrocracker and other Units)	Ammonia	7664-41-7	<10 TPY	a	N/A [3]	The regulated air contaminant is in an enclosed system; emissions are negligible.
Fuel Oil/Diesel Loading	VOC	N/A	<25 TPY	a	25 TPY	See exemption for throughput < 10, 000 gallons / month in Regulation 30 Appendix A section (x). No

ATTACHMENT "C"

Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
						toluene loading here.
Decant/Heavy Oil Loading	VOC	N/A	<25 TPY	a	25 TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Propane Loading	VOC	N/A	<25 TPY	a	25 TPY	The regulated air contaminant is in an enclosed system; emissions are negligible.
Glycol Water Reservoir D-38	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of any regulated air contaminant.
Sulfuric Acid Loading	SO_2/H_2SO_4	7446-09-05	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Vent Boxes for Cooling Water System	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
Boiler Feedwater Chemical Storage Tanks	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.
LUB Oil Units/Systems	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.

ATTACHMENT "C"

Source (Activity/Equipment Description)	Pollutant	CAS Number	Potential to Emit Emission Rate	Basis [1]	Insignificant Activity PTE Threshold [2]	Source Details
Small Unit Tanks used for Raw Materials, Additives, Reagents and Intermediates with a capacity less than 40,000 gallons	VOC	N/A	<25 TPY	a	25 TPY	See detail sheet "AQM-1001CC/Group 2 Insignificant Activities Detail Sheet Small Unit Tanks Used for Raw Materials, Additives, Reagents and Intermediates"
FCCU Catalyst System	PM	N/A	<100 TPY	a	100TPY	See emission calculation on detail sheet AQM-1001CC/Group 2 - Calculation.
Cooling Water Supply Pumps	VOC	N/A	<25 TPY	a	25 TPY	There are negligible emissions of the listed regulated air pollutant.

NOTE [1]: Bases for Determinations are as follows:
(a) = potential to emit emissions rate is below threshold for insignificant activities emissions.

NOTE [2]: Insignificant Activity PTE threshold based on Delaware Regulation No. 30, Appendix A, for Emission Units for which an applicable requirement has not yet been promulgated and which are not elsewhere listed as an insignificant activity.

NOTE [3]: No Insignificant Activity PTE Threshold Established.

NOTE [4]: This source was formerly named "Toluene Loading".

ATTACHMENT "D"

Protocol for Carbon Canister Monitoring – Oily Water Sewer

The purpose of monitoring the carbon canisters is to determine if the primary canister is removing VOC emissions to prevent breakthrough which has been redefined as 50 ppm between the primary and secondary carbon canister. A Photoionization Detector (PID) will be used for this purpose. The PID will be calibrated daily prior to monitoring. The monitoring program will be conducted according to the following procedure at each canister location:

1. Calibrate the PID daily prior to monitoring;
2. Follow all routine DCR safety procedures;
3. If necessary, obtain and secure necessary work permits prior to entering process units and/or work areas to monitor canisters;
4. Check hose to the canisters to assure that there are no leaks;
5. Check for water accumulation by opening the drain valve prior to monitoring;
6. Measure the background TOV concentration at the canister (with the PID) and record the reading;
7. Measure the effluent TOV concentration at the outlet of the primary canister (with the PID) and record the reading. If the TOV concentration is less than 50 ppm proceed to the next canister location repeating steps 4-7.
8. If the TOV concentration at the outlet of the primary canister is 50 ppm or greater, the primary canister is determined to be spent.

When VOC breakthrough occurs after the primary canister, the canister configuration will be switched and the spent canister will be replaced with a fresh canister in accordance with paragraph 69 of the Consent Decree as follows:

> "[The Owner/Operator] shall replace the primary carbon canisters with fresh carbon canisters immediately when breakthrough is detected in accordance with 40 CFR 61.354(d). The original secondary carbon canister will then become the new primary carbon canister. For this Paragraph, "immediately" shall mean eight (8) hours for canisters of 55 gallons or less, twenty-four (24) hours for canisters between 55 gallons up to 20,000 lbs., and 48 hours for canisters 20,000 lbs. or larger."

Additionally, as specified in paragraph 68 of the Consent Decree, the carbon canister monitoring will be conducted in accordance with the frequency specified in 40 CFR 61.354(d).

ATTACHMENT "D"

Carbon Canister Locations

Canister ID	Location	Size (Lbs)
40-S-132	Sleeperway S of Tank 281	180
40-S-133	Sleeperway Tank 261	180
40-S-136	Sleeperway S of Tank 241	180
40-S-137	Sleeperway S of Tank 221	180
40-S-141	Sleeperway S of Tank 201	180
40-S-142	Sleeperway S of Tank 181	180
40-S-145	Sleeperway S of Tank 261	180
40-S-146	Sleeperway S of Tank 261	180
40-S-147	Sleeperway S of Tank 261	180
40-S-150	By Tank 135	180
40-S-151	S of truck loading rack	1,800
40-S-152	N of Tank 8	1,800
40-S-110	4th Street E of coker	1,800
40-S-111	4th & G Street E of Tetra	1,800
40-S-112	4th & G Street E of Tetra	180
40-S-113	4th & F Street E of Train 2	1,800
40-S-114	6th & G Street NE corner	1,800
40-S-115	6th & F Street N of Train 2	180
40-S-116	SW Tank 73 Mid Pump Pit	180
40-S-118	S of Tank 65	180
40-S-119	E of Tank 78	180
40-S-122	S of Tank 60	180
40-S-124	Field S of Tanks 405/406	180
40-S-125	W of Toluene Day Tanks	180
40-S-126	E of Tank 45	180
40-S-127	E of Tank 44 Utilities	180
10-S-330	Wet Oil Building	1,800
10-S-331	WWTP Mix Tank	180

ATTACHMENT "E"
Page 1 of 2

Protocol for Carbon Canister Monitoring – API/CPI Oily Water Separators (Canisters in Series)

The purpose of monitoring the carbon canisters is to determine if the canister is removing VOC emissions with an efficiency of 95% or greater. A Photoionization Detector (PID) will be used for this purpose. The PID will be calibrated daily prior to monitoring. The monitoring program will be conducted according to the following procedure at each canister location:

1. Calibrate the PID daily prior to monitoring;
2. Follow all routine DCR safety procedures;
3. If necessary, obtain and secure necessary work permits prior to entering process units and/or work areas to monitor canisters;
4. Check hose to the canisters to assure that there are no leaks;
5. Check for water accumulation by opening the drain valve prior to monitoring;
6. Measure the background TOV concentration at the canister (with the PID) and record the reading;
7. Measure the effluent TOV concentration at the outlet of the primary canister (with the PID) and record the reading. If no TOV concentration above background is detected proceed to the next canister location repeating steps 4-7.
8. If the TOV concentration at the outlet of the first canister is above background then open the influent sampling valve and measure influent TOV concentration with the PID. Record the concentration.
9. Calculate and record the following ratio:

$$\frac{TOV\ (Influent) - TOV\ (Effluent)}{TOV\ (Influent)}$$

If the ratio exceeds 0.95, then the first carbon canister is effectively controlling total organic vapors. If the TOV ratio is less than 0.95, the canister is deemed to be spent. The canister configuration will be switched and the spent canister will be replaced with a fresh canister.

Bypass Valve Monitoring

Once a week, the bypass valve around the pallet valve on the nitrogen blanketing system will be opened to force flow to the carbon canisters. Monitoring will then be conducted according to the above protocol.

Preventative Maintenance on the Pallet Valves

Once a month, the Owner/Operator will inspect pallet valves. The inspection will consist of removal of the top of the valve, checking the disk and seat sealing surfaces, overall cleanliness of the internals, and that the disk size conforms to design data.

ATTACHMENT "E"
Page 2 of 2

Carbon Canister System

The canisters that will be monitored include the following:

Equipment Number	Location
10-S-320	WWTP N/W of Oily CPI Inlet
10-S-321	WWTP Side of Oily CPI, Inlet Box
10-S-322	WWTP W Side of Oily CPI
10-S-323	S/E Side of Oily CPI
10-S-324	N/E Side of API
10-S-325	E side of API
10-S-326	N/W side of API
10-S-327	N/W side of API
10-S-328	S/E side of API
10-S-329	S/E side of API
VA-2000-1,2,3,4	S/W side of API

The carbon canister monitoring will be conducted daily, including Saturdays and Sundays.

ATTACHMENT "F"

(This Attachment is Applicable Only to Part 1, Condition 3 - Table 1 Compliance Option ja)

Emission limitations/Standards and/or Operational Limitations/Standards	**Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Recordkeeping)**	**Reporting/Compliance Certification**
1. Nitrogen Oxides (NOx): i. Emission Standards and/or Operational limitations: A. For the WWTP VCU: Propane usage by the VCU shall not exceed 260 gallons per hour on a twelve month rolling average basis, which will ensure that NO_X emissions do not exceed 21.6 tons in any twelve consecutive months. *[Reference: permit: APC-94/0710]* B. For the MVR: NOx emissions shall not exceed 61.3 lb/hour and 22.3 tons in any twelve consecutive months. *[Reference: permit: APC-95/0471]* C. For 21-H-701 and 21-H-2 combined: NO_X emissions shall not exceed 60.9 TPY. *[Reference: APC-95/0570 (A3) and Permit:APC-95/0784 (A2)]* D. For the FCU: NO_X emissions from the FCU WGS shall not exceed 689.8 TPY. *[Reference APC-81/0829 (A7)]* E. For the FCCU: NO_X emissions from the FCCU shall not exceed 719.5 TPY on a 365-day rolling average basis. *[Reference APC-82/0981 (A7)]* F. For 25-H-401 and 25-H-402: 13.7 TPY and 10.1 TPY both on a rolling twelve month basis; and 0.029 lb/mmBtu. *[Reference: APC-98/0522]* G. For the SRA: NO_X emissions shall not	ii. Compliance Method: A. Compliance with Operational Limitation A shall be based on recordkeeping. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with Emission Standard B shall be based on monitoring/testing and recordkeeping. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]* C. Compliance with Emission Standard C shall be that required by Part 2 Condition 3, Table 1.c.4.ii.A. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* D. Compliance with Emission Standard D shall be that required by Part 2 Condition 3, Table 1.da.4.ii.C. *[Reference APC-81/0829 (A7)]* E. Compliance with Emission Standard E shall be that required by Part 2 Condition 3, Table 1.e.4.ii.A. *[Reference APC-82/0981 (A7)]* F. Compliance with Emission Standard F shall be that required by Part 2 Condition 3, Table 1.ga.4.iii. *[Reference: APC-98/0522]* G. Compliance with Emission Standard G shall be based on stack testing conducted in accordance with Part 2 Condition 3 - Table 1.j.4.iv. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated*	v. 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]* vi. 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]*

ATTACHMENT "F"

(This Attachment is Applicable Only to Part 1, Condition 3 - Table 1 Compliance Option ja)

exceed 7.0 lb/hr in each SCOT stack and 51.9 TPY combined from both SCOT stacks. *[Reference: APC-98/0264(A7)]* H. For Boilers 80-1, 80-2 and 80-3: The Owner/Operator shall not cause or allow the emission of NO_X in excess of the following baseline emission levels for the boilers : *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* 1. Boiler 80-1: 541.4 TPY 2. Boiler 80-2: 125.4 TPY 3. Boiler 80-3: 541.4 TPY I. For the CCUs 84-1 and 84-2: The Owner/Operator shall not cause or allow the emission of NO_X in excess of 360 TPY from each CCU. *[Reference APC-97/0503 (A3)]*	*12/11/00 and APC-98/0264(A7)]* H. Compliance with Emission Standard H shall be that required by Part 3 Condition 3 - Table 1.a.5.iii.A. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* I. Compliance with Emission Standard I shall be that required by Part 3 Condition 3 - Table 1.d.4.iii. *[Reference APC-97/0503 (A3)]* iii. Monitoring/Testing: A. For the WWTP VCU: The Owner/Operator shall continuously monitor the fuel usage by the VCU. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. For the MVR: The Owner/Operator shall conduct a Department approved stack test once every 5 years. *[Reference: Permit APC-95/0471 (A2)]* C. For 21-H-701 and 21-H-2: that required by Part 2 Condition 3, Table 1.c.4.iii. *[Reference: APC-95/0570 (A 3) and Permit:APC-95/0784 (A2)]* D. For the FCU: that required by Part 2 Condition 3, Table 1.da.4.iii.B. *[Reference APC-81/0829 (A7)]* E. For the FCCU: that required by Part 2 Condition 3, Table 1.e.4.iii. *[Reference APC-82/0981 (A7)]* F. For 25-H-401 and 25-H-402: that required by Part 2 Condition 3, Table 1.ga.4.iii.	

ATTACHMENT "F"

(This Attachment is Applicable Only to Part 1, Condition 3 - Table 1 Compliance Option ja)

	G. For the SRA: The Owner/Operator shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* H. For Boilers 80-1, 80-2 and 80-3: that required by Part 3 Condition 3, Table 1.a.5.iv. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* I. For the CCUs 84-1 and 84-2: that required by Part 3 Condition 3 - Table 1.d.4.iv. *[Reference APC-97/0503 (A3)]* iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. For the WWTP VCU: the type and rolling twelve month fuel usage by the VCU. B. For the MVR: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.b. 1.iv. C. For 21-H-701 and 21-H-2: that required by Part 2 Condition 3, Table 1.c.iv.D. D. For the FCU: that required by Part 2 Condition 3, Table 1.da.4.iv. E. For the FCCU: that required by Part 2 Condition 3, Table 1.e.4.iv. F. For 25-H-401 and 25-H-402: that	

ATTACHMENT "F"

(This Attachment is Applicable Only to Part 1, Condition 3 - Table 1 Compliance Option ja)

	required by Part 2 Condition 3, Table 1.ga.4.iv. G. For the SRA: that required by Part 2 Condition 3, Table 1.j.1.iv. H. For Boilers 80-1, 80-2 and 80-3: that required by Part 3 Condition 3, Table 1.a.5.v. I. For the CCUs 84-1 and 84-2: that required by Part 3 Condition 3 - Table 1.d.4.v. *[Reference APC-97/0503 (A3)]*	

ATTACHMENT "G"

FCCU CO Boiler Bypass Events – Conversion to Full Burn

The procedures described herein shall apply during periods of transition when the CO Boiler experiences an unplanned start-up or shut-down event.

Rationale:

DCRC is installing a bypass line around the CO boiler to allow for regenerator flue gas to be treated in the wet gas scrubber (WGS) during periods when the CO boiler is not available or otherwise out of service. When the regenerator flue gas is bypassing the CO boiler, the FCCU will be converted to operate in full burn to minimize CO emissions. However, if the CO boiler were to shutdown unexpectedly, it is not possible to instantaneously convert the regenerator from partial burn operation to full burn operation and, thus, the following provisions address the operation of the FCCU during such transition periods.

Interim Control Measures

The Owner/Operator shall comply with the following interim control measures:

1. Unplanned Start-up and Shutdown of Fluid Catalytic Cracker Unit CO Boiler. In the event that the FCCU COB is to be shut down for a period longer than 24 hours, DCRC shall promptly begin necessary process changes to provide for the complete combustion of carbon monoxide. Full CO combustion operation shall be achieved within 24 hours.

2. If there is an emergency shutdown of the FCCU CO Boiler due to upsets or malfunctions, the refinery will take the following steps:

   - Open the bypass line to allow for treatment of regenerator flue gases in the wet gas scrubber;
   - Immediately begin the necessary process changes to allow for the complete combustion of carbon monoxide in the regenerator; and
   - FCCU throughput and operating conditions will be safely adjusted as necessary (see FCCU Turndown Factor below) to allow full CO combustion operation to be achieved within 24 hours of attainment of appropriate operating conditions.

   If there is an unplanned or emergency shutdown of the FCCU CO Boiler, the refinery will conduct an evaluation of the cause of the shutdown. If the CO Boiler can be repaired and brought back on line in less than 24 hours, then the regenerator flue gas may continue to bypass the COB to allow it to be repaired or restarted, and combustion promoter need not be added. Until the FCCU CO boiler is returned to normal operation or until full promoted burn conditions are established in the regenerator, in order to minimize FCCU CO emissions, the FCCU feed rate will be reduced to the minimum operating rate as described in the FCCU Turndown Factor below. During this period (24 hours maximum), the requirements in Condition 2.1.6 and 7 **DE Admin. Code** 1111 shall not apply.

ATTACHMENT "G"
Page 2 of 2

FCCU Turn Down Factor

These procedures have been incorporated to minimize FCCU CO emissions during time periods that the FCCU COB is bypassed.

1. If the Company's initial assessment indicates that the FCCU COB can be returned to service within 24 hours after the unplanned shutdown or emergency shutdown, or full combustion of CO has been achieved to meet applicable emission limits, then no rate cuts will be initiated and combustion promoter need not be added. The FCCU may continue to operate until the COB is restarted.

2. If the Company's initial assessment indicates that the FCCU COB cannot be returned to service within 24 hours after the unplanned or emergency shutdown, the Company shall take the following actions:

   a. The Company will promptly begin to reduce the FCCU feed rate at a rate of 5,000 bph until the unit is operating at 55,000 bpd; and

   b. Combustion promoter will be added to the FCCU regenerator when appropriate operating conditions have been achieved. Fully promoted (complete) combustion will be achieved within 24 hours of the start of the unplanned or emergency shutdown.

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Ravi Rangan, P.E.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
aa. Emission Units No. 10: Wastewater Treatment Plant (WWTP) – Oily Sewer System		
1. Volatile Organic Compounds (VOC): i. Emission Standard: A. VOC emissions shall not exceed 0.26 tons in any twelve consecutive months. *[Reference: APC-93/0350 (A1) and 40 CFR 60.692-5 dated 11/23/1988]* B. Benzene emissions shall not exceed 0.03 tons in any twelve consecutive months. *[Reference: APC-93/0350 (A1)]* ii. Operational Limitations: *[Reference: APC-93/0350 (A1)]* A. Except as provided in Operational Limitation (E) the Owner/Operator shall meet the following standards for each individual drain system in which waste is placed in accordance with §61.342(c)(1)(ii): 1. The Owner/Operator shall operate and maintain on each drain system opening a cover and closed-vent system that routes all organic vapors vented from the drain system to a control device. 2. The cover shall meet the following requirements: i. The cover and all openings (e.g., access hatches, sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv	iii. Compliance Method: A. Compliance with Emission Standards (A) and (B) and Operational Limitation (F) (2) shall be based on Monitoring/Testing. B. Alternately, the Owner/Operator may analyze the daily monitoring data to establish a carbon canister change out schedule so that the carbon in each carbon adsorption location is replaced with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. The Owner/Operator shall obtain the Department's written approval prior to implementing any such replacement schedule. C. Compliance with Operational Limitation (A) shall be based on Monitoring/Testing. D. Compliance with operational limitation (B), (C), (D), (E), (F)(1) and (F)(3) shall be based on recordkeeping. iv. Monitoring/Testing The Owner/Operator shall comply with the following monitoring/testing requirements: *[Reference: APC-93/0350 (A1)]* A. The carbon adsorbers shall be monitored daily in accordance with the monitoring protocol in Attachment "D" of this permit.	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. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF. B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**] E. [**RESERVED**] 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
above background, initially and thereafter at least once per year by the methods specified in §61.355(h). ii. Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the drain system except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. iii. If the cover and closed-vent system operate such that the individual drain system is maintained at a pressure less than atmospheric pressure, then paragraph (A)(2)(ii) does not apply to any opening that meets all of the following conditions: A. The purpose of the opening is to provide dilution air to reduce the explosion hazard; B. The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined	and by replacing the carbon immediately upon breakthrough. For the purpose of this paragraph, "breakthrough" is defined as any reading of 50 ppm volatile organic compounds measured after the first canister at each location, and "immediately" shall mean 8 hours for canisters 55 gallons or less, 24 hours for canisters between 55 gallons and 20,000 pounds and 48 hours for canisters greater than 20,000 pounds. Attachment "D" to this permit specifies the location and size of each canister set. B. The Owner/Operator shall conduct periodic visual inspections in accordance with Section 61.346(a)(2). *[Reference: 40 CFR 61.346 dated 1/7/93]* C. The Owner/Operator shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). *[Reference: 40 CFR 61.346 dated 1/7/93]* v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: APC-93/0350(A1)]* A. Engineering design documentation for the carbon canister control devices installed on the OWS system. The documentation shall be retained for the life of the control equipment. B. A statement signed and dated by the	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
initially and thereafter at least once per year by the methods specified in § 61.355(h); and C. The pressure is monitored continuously to ensure that the pressure in the individual drain system remains below atmospheric pressure. B. The closed-vent system and control device shall be designed and operated in accordance with §61.349. C. Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly. D. Except as provided in §61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. E. As an alternative to complying with Operational Limitations (A) through (D), the Owner/Operator may elect to comply with the following	owner or operator certifying that the closed-vent systems and control device are designed to operate at the documented performance level when the waste management unit vented to the control devices are or would be operating at the highest load or capacity expected to occur. The documentation shall be retained for the life of the control equipment. C. If engineering calculations are used to determine control device performance in accordance with § 61.349(c), then a design analysis for the control device that includes for example, specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters for the carbon adsorption system: the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
requirements: 1. Each drain shall be equipped with water seal controls or a tightly sealed cap or plug. 2. Each junction box shall be equipped With a cover and may have a vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter. i. Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance. ii. One of the following methods shall be used to control emissions from the junction box vent pipe to the atmosphere: A. Equip the junction box with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation. An example of such a system includes use of water seal controls on the junction box. A flow indicator shall be installed, operated, and maintained on each junction box vent pipe to ensure that organic vapors are not vented from	design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. The documentation shall be retained for the life of the control equipment. E. A record for each visual inspection required by Operational Limitations (C) or (E) (4) that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. F. A record for each test of no detectable emissions required by operational limitations (A)(2)(i) and (F)(1) The record shall include the date the test was performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken,	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
the junction box to the atmosphere during normal operation. B. Connect the junction box vent pipe to a closed-vent system and control device in accordance with § 61.349. 3. Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces. 4. Equipment installed in accordance with paragraphs (E)(1), (E)(2), or (E)(3) or §61.346 shall be inspected as follows: i. Each drain using water seal controls shall be checked by visual or physical inspection initially and thereafter quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water seal controls. ii. Each drain using a tightly sealed cap or plug shall be visually inspected initially and thereafter quarterly to ensure caps or plugs are in place and properly installed.	and the date the corrective action was completed. G. Dates of startup and shutdown of the closed-vent systems and control devices and periods when the closed-vent system and control device are not operated as designed. H. Records of dates and times when the control devices are monitored, when breakthrough is measured, and shall record the date and time that the existing carbon in the control devices are replaced with fresh carbon.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
iii. Each junction box shall be visually inspected initially and thereafter quarterly to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge. iv. The unburied portion of each sewer line shall be visually inspected initially and thereafter quarterly for indication of cracks, gaps, or other problems that could result in benzene emissions. 5. Except as provided in § 61.350, when a broken seal, gap, crack or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification. F. The closed vent system and carbon adsorption control devices shall be operated and maintained to meet the following requirements: 1. Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h).		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. To recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. 3. Be operated at all times when waste is placed in the waste management unit vented to the carbon adsorption control devices, except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the Carbon Adsorption Control System.		
ab. Emission Units No. 10: Wastewater Treatment Plant (WWTP) Unit No. 10: API/CPI Separators, Equalization Tank, Spill Diversion Tanks, Floatation Clarifier, Flocculation Tanks and Flash Mix Tank		
1. Volatile Organic Compounds (VOC): i. Emission Standard for API/CPI Separators: *[Reference: APC-81/1008, 40 CFR 60.692-5 dated 11/23/88 and 40 CFR 61.349(a)(2)(ii) dated 1/7/93]* A. VOC emissions shall not exceed 3.4 tons in any twelve consecutive months. B. Benzene emissions shall not exceed 0.09 tons in any twelve consecutive months. ii. Equipment Standard/Operational Limitation for API/CPI Separators:	iv. Compliance Method: A. Compliance with emission standards A and B shall be demonstrated by following the monitoring protocol that is Attachment "E" of this permit. *[Reference: APC-81/1008]* B. Compliance with the Equipment Standards/Operational Limitations for API/CPI Separators, Equalization Tanks, Spill Diversion Tank, Flocculation Tanks and Flash Mix Tank shall be based on the monitoring/testing and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3. dated 12/11/00]*	vii: 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 and 40 CFR 61.357 dated 1/7/93]* A. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF B. **[RESERVED]** C. **[RESERVED]**

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
[Reference: 40 CFR 61.351 and 40 CFR 61.352 dated 1/7/93, APC-81/1008 and APC-81/1009] A. All Fixed-Roofs shall be operated and maintained according to the following requirements: 1. The cover and all openings (access hatches, sampling ports, gauge wells, etc.) shall operate with no detectable emissions, as indicated by an instrument reading of less than 500 *ppmv* above background, as determined initially, and thereafter at least one (1)-year intervals by the methods specified in 40 CFR 61.355(h) (1993). 2. Each opening shall be maintained in a closed, sealed position (covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator, except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance or repair. B. Each floating roof shall be equipped with a closure device between the wall of the Separator and the roof edge. The closure device shall consist of a primary seal and a secondary seal. C. The primary seal on each floating roof shall be a liquid-mounting seal meeting the following requirements: 1. A liquid-mounted seal means a	v. Monitoring/Testing: *[Reference: APC-81/1008, 40 CFR 60.692-5 dated November 23, 1988 and 40 CFR 61.349(a)(2)(ii) dated January 7, 1993]* A. Measurement of primary seal gaps shall be performed within sixty (60) calendar days after initial installation of the floating roofs and introduction of refinery wastewater or sixty (60) calendar days after the equipment is placed back into service, and once every five (5) years thereafter. Measurement of secondary seal gaps shall be performed within sixty (60) calendar days after the equipment is placed in service, and once every year thereafter. B. The Owner/Operator shall perform the following inspections on the flocculation, spill diversion and equalization tanks: 1. Semiannual inspections to ensure compliance with the equipment standards/operational limitations for the flocculation, spill diversion and equalization tanks (including visual inspection of the secondary seal gap); and measure the secondary seal gap annually according to the procedure described in paragraph C below. C. Gap area shall be calculated by physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in) uniform diameter probe passes freely (without forcing or binding	D. [**RESERVED**] viii. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
foam-filled or liquid-filled seal mounted in contact with the liquid between the wall of the Separator and the floating roof. 2. The gap width between the primary seal and the Separator wall shall not exceed 3.8 *cm* (1.5 *in.*) at any time. 3. The total gap area between the primary seal and the Separator wall shall not exceed 67 cm^2/m (3.2 $in.^2/ft.$) of Separator wall perimeter. D. The secondary seal on each floating roof shall be above the primary seal and cover the annular space between the floating roof and the wall of the Separator. 1. The gap width between the secondary seal and the Separator wall shall not exceed 1.3 *cm* (0.5 *in.*) at any point. 2. The total gap area between the secondary seal and the Separator wall shall not exceed 6.7 cm^2/m (0.32 $in.^2/ft.$) of Separator wall perimeter. E. The maximum gap width and total gap area shall be determined by the methods and procedures specified in 40 CFR 60.696(d). F. Necessary repairs shall be made within thirty (30) calendar days of identification of seals not meeting the	against the seal) between the seal and the tank wall. Summing these gap areas will determine the accumulated gap area. D. During periods when any API bay is uncovered, conduct a daily check of the presence of a water seal to ensure that vapors from other bays are not escaping to the atmosphere through the out of service bay. vi. 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. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. *[Reference: 40 CFR 61.356(f)(1) dated 1/7/93]* B. For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, records of the design analysis which takes into account the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. Records shall also be maintained for the following parameters	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
requirements listed in paragraphs (C) and (D) of this Condition. G. Except as provided in Operational Limitation I, each opening in the roof shall be equipped with a gasketed cover, seal or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance. H. The roof shall be floated on the liquid (i.e., off the roof supports) at all times except during a condition of low flow rate. I. The floating roof may be equipped with one (1) or more emergency roof drains for removal of storm water. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least ninety percent (*90%*) of the drain opening area, or a flexible fabric sleeve seal. J. Access doors and other openings shall be visually inspected initially and semiannually thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions. K. When a broken seal or gasket on an access door or other opening is identified, it shall be repaired as soon as possible, but not later than thirty (30) calendar days after it is	established by the design analysis: the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. *[Reference: 40 CFR 61, Subpart FF, Section 61.356(f)(2)(G) dated 1/7/93]* C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355(h). *[Reference: 40 CFR 61, Subpart FF, Section 61.355(h) dated 1/7/93]* D. The Owner/Operator shall maintain records of all inspections and seal gap measurements of the equalization tanks and spill diversion tank in accordance with the procedures in Section 60.115b. *[Reference: 40 CFR 60.115b dated April 8, 1987, 40 CFR 61.351 and APC-81/1009]* E. The Owner/Operator shall maintain records of all inspections and seal gap measurements of oil water separator floating roofs in accordance with NSPS Alternative Standards for oil waste separators. *[Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352]* F. Log of operating hours when any API bay is taken out of service and the operator's verification of the presence of a water seal. *[Reference: APC-81/1008]*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
identified, except if the repair is technically impossible without a complete or partial Refinery or process unit shutdown. Repair of such equipment shall occur before the end of the next Refinery or process unit shutdown. L. The Closed-Vent System shall be operated and maintained according to the following requirements: 1. Operate with no detectable emissions, as indicated by an instrument reading of less than 500 *ppmv* above background, as determined initially, and thereafter at least at one (1)-year intervals by the methods specified in 40 CFR 61.355(h). 2. All gauging and sampling devices shall be gas-tight, except when gauging or sampling is taking place. 3. One (1) or more devices which vent directly to the atmosphere may be used on the Closed-Vent System, provided that each device remains in a closed, sealed position during normal operations, except when the device needs to open to prevent physical damage or permanent deformation of the Closed-Vent System resulting from malfunction of the Unit in accordance with good engineering		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
and safety practices for handling flammable, explosive or other hazardous materials. M. The Closed-Vent and Carbon Adsorption Control Systems shall be operated at all times when waste is placed in the waste management unit vented to the Carbon Adsorption Control System, except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the Carbon Adsorption Control System. N. When an API Separator bay is uncovered and out of service for maintenance or repair, its water seal shall be established immediately and maintained continuously for the entire duration of the out of service period. O. The carbon adsorption system shall be operated and maintained to recover or control the VOC emissions vented to it with an efficiency of 95 weight percent or greater or to recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. iii. Equipment Standard/Operational Limitations for Equalization, Flocculation and Spill Diversion Tanks: *[Reference: 40 CFR 60.112b(a)(2) dated April 8, 1987, 40 CFR 61.351 and APC-81/1009, and APC-94/0710]*		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. The two equalization and one spill diversion tank shall be fitted with: 1. A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or 2. A closure or other device approved by the Department as part of the State Implementation Plan ("SIP") that controls VOC emissions with an effectiveness that is equal to or greater than the tank's continuous secondary seal. B. Seals and seal fabric shall have no holes, tears or other openings. C. Seals must be intact and uniformly in place around the circumference of the floating roof, between the floating roof and the tank wall. D. The width of any portion of any gap shall not exceed 1.27 centimeters (cm) (0.5 inch) and the accumulated area of gaps exceeding 0.32 centimeters (cm) (0.125 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter (cm^2/m) (1.0 square inch per foot) (in^2/ft) of tank diameter. E. All openings in the external floating roof, except for automatic bleeder vents and leg sleeves, shall be equipped with:		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
1. Covers, seals or lids in the closed position, except for when the openings are in actual use; and, 2. Projections into the tank that remain below the liquid surface at all times. F. Automatic bleeder vents must be closed at all times, except when the roof is being floated-off the leg supports. *[Reference: 40 CFR 60.693-2 dated August 18, 1995, 40 CFR 61.352, and Permit: APC-81/1008]*		
ac. Emission Unit No. 10: Wastewater Treatment Plant (WWTP) – Dissolved Nitrogen Floatation, Oil Recovery System and Vapor Combustion Unit (VCU); Emission Point 10-1		
1. Particulate Matter: i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mm BTU heat input, maximum 2-hour average from the VCU. *[Reference: 7 **DE Admin. Code** 1104 No. 4 Section 2.1 dated 2/1/81]*	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on the fuel type and quality. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: None in addition to those listed in Condition 3 - Table 1.ac.3.iv. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. The fuel usage by the VCU. B. The rolling 12 month total emissions shall be calculated and recorded each month.	v. 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]* vi. 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]*
2. Sulfur dioxide (SO_2): i. Operational Limitation:	ii. Compliance Method: A. Compliance with the Operational Limitation A	v. Reporting: That required by Conditions 2(a), 2(b)(9),

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. In addition to an inerting stream identified as Waste Stream "A" in Drawing No. B-VC-A05733-150, pipeline grade natural gas shall be the only fuel fired in the VCU. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. SO_2 emissions shall not exceed 0.06 tons per year. *[Reference APC-94/0710(A1)]*	shall be based on monitoring and recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with the Operational Limitation B shall be based on the type and quality of the fuel. *[Reference APC-94/0710(A1)]* iii. Monitoring/Testing: None in addition to those listed in Condition 3 - Table 1.ac.3.iv. *[Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: Comply with Condition 3 - Table 1.ac.1.iv. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	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]* vi. 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]*
3. Nitrogen oxides (NO_X): i. Operational Limitation: *[Reference Permit: APC-94/0710(A1)]* A. **[RESERVED]** B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j.	iii. Compliance Method: A. Compliance with the operational limitations A and B shall be based on recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j shall be based on published NOx emission factors for such source or category of sources 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: A. The Owner/Operator shall continuously	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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	monitor the fuel usage by the VCU. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. The rolling twelve month fuel usage by the VCU. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2 dated 12/11/00]* C. Comply with Condition 3 - Table 1.ac.1.iv.	
4. Volatile Organic Compounds (VOC) i. Emission Standard: VOC emissions shall not exceed 20 ppmv (dry) corrected to 3 percent O_2 and 0.5 tons in any rolling twelve month period from the VCU. *[Reference:APC-94/0710(A1) and 40 CFR 61.349(a)(2)(i)(B) dated January 7, 1993]* ii. Operational Limitation: A. The VCU shall not operate below a temperature of 1,300°F except during a 4 hour start up period. Start up is defined as the time when the waste gases are introduced into the VCU.	iv. Compliance Method: *[Reference: APC-94/0710(A1) and 40 CFR 61.354(c)(1) dated January 7, 1993]* A. Compliance with the Emission Standard shall be based on the type and quality of fuel fired. B. Compliance with the Operational Limitation (A) shall be based on compliance with the minimum operating temperature of 1300°F (defined as no more than 50°F below 1300°F in any rolling three hour period of operation). C. Compliance with the Operational Limitation (B) shall be based on Monitoring/Testing. D. Compliance with the Operational Limitation (C) shall be based on Recordkeeping. E. Compliance with the Equipment Standard	vii. Reporting: *[Reference: 40 CFR 61.357 dated 1/7/93]* 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. Submit to the Department copies of the Quarterly and Annual reports sent to the US EPA in accordance with the requirements of 40 CFR Part 61, Subpart FF. B. [RESERVED] viii. Certification: That required by Condition 3(c)(3) of this

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
[Reference:APC-94/0710(A1)] B. The dissolved nitrogen floatation and flocculation system, oil recovery system and VCU shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in 40 CFR Part 61.355(h). *[Reference: 40CFR 61.351 and 40 CFR 61.352 dated 1/7/93 and APC-94/0710(A1)].* C. The VCU shall be operating properly whenever any of the following equipment is in operation except during periods of maintenance on the VCU, or during emergency situations that require the shutdown of the VCU: • Crude Recovery Tank (372-TC-M) • Sludge Holding Tank (349-TM-M) • DNF Tank 326 • DNF Tank 305 • DNF Tank 306 • Slop Oil Tank 10-D-109 • Slop Oil Tank 10-D-202 • Day Tank 356-TC-3 • Day Tank 357-TC-3 • Day Tank 358-TC-3 iii. Equipment Standard: The VCU shall be equipped with a	shall be based on recordkeeping. v. Monitoring/Testing: A. The Owner/Operator shall monitor the temperature of the firebox continuously. *[Reference: APC-94/0710(A1)]* B. The Owner/Operator shall annually monitor the system for no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background using the methods specified in Section 61.355(h). *[Reference: 40 CFR 61.355 dated 1/7/93]* vi. Recordkeeping: *Reference: APC-94/0710 and 40 CFR 61.356 dated January 7, 1993]* The Owner/Operator shall maintain the following records in accordance with Condition 3(b) unless a longer period is otherwise specified: A. Dates of start-up and shutdown of the closed vent system and VCU. B. A description of the operating parameter(s) to be monitored to ensure that the VCU will be operated in conformance with all permit conditions and regulatory requirements, and the VCU's design specifications and an explanation of the criteria used for selection of that parameter(s). This documentation shall be retained for the life of the VCU. C. A record for each test of no detectable emissions in accordance with 40 CFR 61.355 (h). D. Maintain continuous records of the temperature of the gas stream in the combustion zone of the VCU and record of all	permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have an accuracy of ± 1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. *[Reference: APC-94/0710(A1), and 40 CFR 61.354(c)(1) dated January 7, 1993]*	three (3) hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28°C (50°F) below the combustion zone temperature. E. A statement signed and dated by the Owner/Operator certifying that the closed vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is, or would be, operating at the highest load or capacity expected to occur. *[Reference: 40 CFR 61.356(f)(1) dated 1/7/93.]* F. Comply with Condition 3 - Table 1.ac.1.iv.	
5. Visible emissions: i. Emission standard: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference: 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: 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. B. If required under paragraph A above, the	v. Reporting Requirement: 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 & 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(c) dated 12/7/88].*	
6. Carbon Monoxide i. Emission Limitation: Carbon Monoxide emissions shall not exceed 8.2 tons per year on a 12 month rolling basis. *[Reference APC-94/0710(A1)]*	ii. Compliance Methodology Compliance with the Operational Limitation B shall be based on the type and quality of the fuel. *[Reference APC-94/0710(A1)]* iii. Monitoring/Testing The Owner/Operator shall continuously monitor the fuel usage by the VCU. *[Reference APC-94/0710(A1)]* iv. Recordkeeping: Comply with Condition 3 - Table 1.ac.1.iv. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	v. Reporting Requirement: 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]* vi. 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]*
ad. Emission Unit No. 10: Gasoline Dispensing Facility		
1. Volatile Organic Compounds (VOC): i. Emission Standard A. During loading of the aboveground	iii. Compliance Method: A. Compliance with Emission standard (A). shall be based on compliance with the	vi. Reporting: A. In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii),

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
storage tank, the Stage I vapor recovery system for the 4000 gallon aboveground storage tank shall be returned by way of the vapor balance system which returns no less than 90 percent by weight of the vapors to a vapor tight delivery vessel. *[Reference: APC-95/0862-OI]* ii. Operational Limitation: *[Reference: APC-95/0862-OI dated April 28, 1995 and APC-95/0862-OII]* A. All gaskets and seals in the vapor balance system of the Dual Point Stage I Vapor Recovery System shall be in place and in good condition so as to prevent gasoline vapors from being released when the vapor balance system is not in use. B. For the Healy Stage II Vapor Recovery System: 1. The maximum length of the hose must not exceed 13 feet; 2. Then maximum dispensing rate is limited to 10 gallons or less per minute; and 3. Model 200 nozzles or upgraded nozzles shall be used with the Model 100 Jet Pump.	Operational Limitation. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with the Operational Limitations shall be based on recordkeeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Monitoring/Testing: *[Reference: APC-95/0863-OII and 7 **DE Admin. Code** 1124, Section 36, dated 1/11/02]* A. A pressure/decay leak test shall be conducted as described in 7 **DE Admin. Code** 1124, Section 36 paragraph (d)(1)(i)(A) once every five years. B. An annual Healy Aboveground Applications System Test shall be conducted. C. At least one representative from the Owner/Operator must have been trained to operate and maintain the Stage II Healy System in accordance with Regulation 1124, Section 36 paragraph (c)(2). D. Personnel trained pursuant to Monitoring/Testing requirement (C) shall perform daily routine maintenance inspections is accordance with manufacturer's specifications. v. Recordkeeping: *[Reference: APC-95/0863-OII and 7 **DE Admin. Code** 1124, Section 36, dated 1/11/02]* A. The following records shall be maintained in accordance with Condition 3(b): 1. Record of daily visual inspections and any maintenance conducted on the Stage II system.	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]* 1. Report excess emissions to the Department's Underground Storage Tank Branch. 2. Provide written notification to the Department 10 working days prior to any test operation, unless permission is granted to the contrary; and 3. Report test failures to the Department within 24 hours of the failure. 4. Within 30 days of a test date, submit to the Department the actual test date, the testing Owner/Operator's name, address and phone number, and, if any corrective action was performed by the testing Owner/Operator, all information specified in 7 **DE Admin. Code** 24, Section 36, paragraph (f)(4). *[Reference: APC-95/0862-OI and APC-95/0863-OII. and Reg. No. 24, Section 36, dated 1/11/02.]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	2. Pressure/decay and the Healy Aboveground Applications System Test results 3. Daily records showing the quantity of gasoline delivered to the site. 4. Proof of attendance and completion of a training program as specified in 7 **DE Admin. Code** 1124, Section 36 paragraph (c)(2)(ii). 5. Compliance records, including warnings, notices of violation and other compliance records issued by the Department to the facility. B. A conspicuous sign shall be posted with instructions on how to correctly dispense gasoline. C. A conspicuous "Out of Order" sign must be posted on any nozzle associated with any part of the Stage II system that is found to be defective. D. The Department emergency reporting number shall be posted conspicuously.	
b. Emission Unit No. 15: Marine Vapor Recovery (MVR) System; Emission points 15-1 and 15-2		
1. Conditions Applicable to Multiple Pollutants i. Operational Limitation: A. Commercial grade, desulfurized natural gas shall be the only fuel fired in this unit. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* B. **[RESERVED]**	ii. Compliance Method: A. Compliance with the operational limitation A shall be based on the fuel type and quality. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. **[RESERVED]** iii. Monitoring/Testing:	v. 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]* vi. Certification:

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	The Owner/Operator shall monitor the fuel usage of the MVR VCU continuously. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): The type of fuel combusted in the MVR VCU and hourly fuel usage. *[Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]*	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 Matter: i. Emission Standard: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3lb/mmBTU heat input, maximum 2-hour average. *[Reference: 7 **DE Admin. Code** 1104 Section 2.1 dated 2/1/81]*	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on the fuel type and quality. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.b.1.iii. iv. Recordkeeping Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.b.1 iv.	v. 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]* vi. 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]*
3. Nitrogen oxides (NO_X) i. Emission Standard: Comply with "Facility Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j.	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on Monitoring/Testing and Recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j shall be based on determination and use of a NOx emission factor based upon results of	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	the most recent performance testing conducted in accordance with a protocol approved by 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. The Owner/Operator shall conduct a Department-approved stack test once every 5 years. *[Reference: APC-95/0471(A2)]* B. 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 dated 12/11/00]* iv. Recordkeeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2 dated 12/11/00][*	
4. Carbon monoxide (CO): i. Emission Standards: CO emissions shall not exceed 153.2 lb/hour and 55.7 tons in any twelve consecutive months. *[Reference: APC-95/0471 (A2)]*	ii. Compliance Method: A. Compliance with the emission standard shall be based on Monitoring/Testing and Recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator shall conduct a Department approved stack test once every 5 years. *[Reference: APC-95/0471 (A2)]*	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.b.1.iv.	
5. Volatile Organic Compounds (VOCs) i. Emission Standard: A. VOC emissions shall not exceed 151 tons in any twelve consecutive months. *[Reference: APC-95/0471 (A2)]* B. Vapors displaced during barge loading operations shall be collected and routed through the marine vapor control system and shall be reduced by 98 weight percent or to 1000 ppmv of VOC. ii. Operational Limitations: *[Reference: APC-95/0471 (A2), 40 CFR §60.18 dated 10/17/2000, 40 CFR §63.11 dated 10/17/2000 and 40 CFR 63.56(b)(1), (b)(3) and (b)(3) dated September 19, 1995]* A. Barge loading of gasoline products shall not exceed the following rates: 1. 35,000 barrels hour when loading simultaneously at two piers; and 2. 25,000 barrels per hour at one pier. B. The rolling twelve month throughput of gasoline products shall not exceed 25,463,000 barrels. C. The vapors collected at one loading berth shall not pass through another	iii. Compliance Method: A. Compliance with Emission Standard (A) and Operational Limitation (H) shall be based on all of the following: *[Reference: APC-95/0471 (A2), 40 CFR §60.18 dated 10/17/2000 and 40 CFR §63.11 dated 10/17/ 2000]* 1. Operating the VCUs in accordance with 40 CFR 60.18 and with the continuous presence of a flame at the pilot during the entire loading cycle. 2. Compliance with all of the Operational Limitations. 3. Operating a calibrated and maintained sensing device to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. B. Compliance with Emission Standard (B) shall be based upon monitoring/testing and recordkeeping requirements to demonstrate the 98% destruction efficiency or by CEMS to demonstrate compliance with the 1000 ppmv limit. C. Compliance with the Operational Limitations shall be based on the monitoring/testing and recordkeeping requirements of this condition. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* iv. Monitoring/Testing: *[Reference: 7 **DE Admin. Code**	vi. Reporting Requirements: 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
loading berth to the atmosphere. D. Marine tank vessel loading operations shall be limited to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. E. Marine tank vessel loading operations shall be limited to those vessels that are vapor tight and that are connected to the vapor collection system. F. Marine vessel loading operations may be carried out only when the marine vessels have been connected to the loading rack's vapor collection system and which have current vapor tightness certification in accordance with the requirements of 40 CFR 63.563(a)(4) and have been demonstrated to be vapor tight within the preceding 12 months. G. No barge loading operations of gasoline products shall be conducted unless the MVR VCUs is/are operating properly. Proper operation is defined as operating the VCUs in accordance with 40 CFR 60.18, and with the continuous presence of a flame at the pilot during the entire loading cycle. H. Marine vessel loading operations shall not be conducted unless the	*1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall continuously monitor the hourly loading rate of all gasoline products at each pier during loading operations. B. A sensing device shall be calibrated, maintained and operated to indicate the continuous presence of a flame at the pilot light during the entire loading cycle. *[Reference: APC-95/0471 (A2), 40 CFR §60.18 dated 10/17/2000, and40 CFR §63.11 dated 10/172000]* C. The Owner/Operator shall conduct a Department approved stack test once every 5 years. *[Reference: APC-95/0471 (A2)]* D. If the Owner/Operator decides to install a CEMS, the CEMS shall comply with Quality Assurance procedures in 40 CFR Part 60 Appendix "F". v. Recordkeeping: In addition to the records required by §63.567, the following records shall be maintained in accordance with Condition 3(b): A. **[RESERVED]** B. **[RESERVED]** C. Continuous records of pilot flame monitoring. D. Records of all periods of operation during which the pilot flame is absent during the loading cycle. E. The hourly throughput, type of product, number of piers used and duration of each loading cycle. F. Any flare system that is designed to cease operation upon loss of pilot and that	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
vapor control system is working properly. I. The Owner/Operator shall comply with the operation and maintenance requirements for air pollution control equipment in accordance with the provisions of 40 CFR 63.562(e).	automatically shuts down vessel loading and isolates the vessel vent stream from the flare by closing automatic block valves shall be exempt from the requirements of (C) and (D) above. G. For each marine vessel the Owner/Operator shall maintain up-to-date documentation of the vapor tightness test results to include as a minimum the following: 1. Marine tank vessel owner(s) name(s) and address(s). 2. Marine tank vessel identification number. 3. Date and location of test. 4. Test results. 5. Name and signature of tester. 6. Witnessing inspector: name, signature and affiliation. H. The written operation and maintenance plan required by 63.562(e).	
6. Visible Emissions: i. Emission Standard: The MVR VCUs shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hour period. *[Reference: 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84, 40 CFR 60, Subpart A, §60.18(c)(1), dated 7/1/00 and 40 CFR 63.11(a)(4) dated 7/1/00]*	ii. Compliance Method: A. Compliance with the Emission Standard shall be based on Monitoring/Testing requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: A. Visible emissions from the MVR VCUs shall be monitored as follows: Each day the MVR VCUs are operated, the Owner/Operator shall conduct a qualitative observation of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants while the flare is in	v. 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]* vi. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	operation. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. If visible emissions are detected during the daily qualitative survey of visible emissions or is observed at any other time, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with Paragraph (C) below. If no visible emissions are observed, no further action is required. C. If required under paragraph B above, the Owner/Operator shall, in accordance with 7 **DE Admin. Code** 1120 Section 1.5.3, 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 or if operations at the MVR VCU are ceased. 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(c) dated 12/7/88].* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): Records of qualitative emission observations and Method 9 evaluations when emissions are observed.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
c. Emission Unit No. 21: Crude Unit; Crude Unit Atmospheric Tower Heater 21-H-701, and Crude Unit Vacuum tower Heater 21-H-2. Emission Point 21-1		
1. **Conditions Applicable to Multiple Pollutants:** i. Operational Limitation: A. The throughput to the crude unit shall not exceed 191,100 BPD on a twelve month rolling average basis. *[Reference: APC-81/0828(A2)]* B. [**RESERVED**] C. [**RESERVED**] D. The emission standards in conditions (c)(2) through (c)(6) below shall not apply for a period of twenty-four (24) hours from the time that fuel gas flow is started to the heater and for a period of twenty-four (24) hours from the time that black oil charge to the crude unit is stopped. *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]* E. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system. F. The Company shall provide for the following during process unit turnarounds: 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. 2. No emission of VOC from a process unit or vessel until its	ii. Compliance Method: Compliance with the Operational Limitations shall be based on monitoring/testing and recordkeeping requirements and the following.: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Operational Limitations E and F shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. [Reference: APC-81/0828(A2)] B. Compliance with Operational Limitations F shall be based upon the Company conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. *[Reference: APC-81/0828(A2)]*. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall continuously monitor the following: 1. Daily fresh feed throughput to the Crude unit and determine the rolling 12 month average in barrels per calendar day. 2. Monitor the fuel usage by 21-H-701 and 21-H-2. B. [**RESERVED**] C. The Company shall monitor the pressure in	v. 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]* vi. 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]*.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
internal pressure is 136 kPa (19.7 psia) or less.	each process or vessel until its internal pressure is 136 kPa or less. *[Reference: APC-81/0828(A2)]* iv. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Rolling 12 month average throughout of fresh feed to the crude unit in MBPD. B. [**RESERVED**] C. Type of fuel combusted in 21-H-701 and 21-H-2 and fuel usage. D. The rolling 12-month total emissions for each pollutant. E. Date of process unit or vessel turnaround and the internal pressure immediately prior to venting to the atmosphere. *[Reference: APC-81/0828(A2)]*	
2. Particulate Matter: i. Emission Standard: For 21-H-701 and 21-H-2 combined: PM_{10} emissions shall not exceed 0.02 lb/mmBtu and 60.9 tons in any rolling twelve month period (inclusive of H2SO4 emissions). *[Reference: 7 **DE Admin. Code** 1104 Section 2.1 dated 2/1/81 and APC-95/0570 (A3) and APC-95/0784 (A2)]* ii. Operational Limitation: A. With the exception of Operational Limitation (B) process heaters 21-H-701 and 21-H-2 shall only combust natural gas or desulfurized RFG.	iii. Compliance Method: A. Compliance with the Emission Standard shall be based on the stack test based emission factor and the rolling 12 month fuel usage. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Monitoring/Testing: *[Reference: APC-95/0570 (A2)] and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. The Owner/Operator shall conduct a stack test every five years to determine 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
*[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]* B. 21-H-701 may combust process vent gas from the Merox system oxidizer column 21-C-104. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	emission factor in terms of lb/mmBtu in accordance with Methods 5B/202, or any other testing methodology approved by the Department. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv.	
3. Sulfur dioxide (SO_2): i. Emission Standards: A. Except as allowed by Operational Limitation 2.ii.A. above, the Owner/Operator shall not burn in any fuel gas combustion device any fuel gas that contains H_2S in excess of 0.1 grain/DSCF on a three hour rolling average. *[Reference 7 **DE Admin. Code** 1120, Section 11 dated 11/27/85 and 40 CFR 60.104(a)(1) dated 10/17/2000]* B. SO_2 emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.063 lb/mmBtu and 80.4 tons in any rolling twelve month period. *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]*	ii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard A shall be based on the H_2S CEMS for the RFG. B. Compliance with Emission Standard B shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content of the refinery fuel gas as measured by a TRS analyzer. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The H_2S content in RFG shall be continuously monitored using CMS. B. The H_2S CMS shall comply with Performance Specification 7 of 40 CFR 60, Appendix "B". C. Quality Assurance requirements for the H_2S CMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". D. 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	v. 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]* vi. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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". iv. Recordkeeping: *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Fuel usage, rolling average 12 month sulfur content as measured by H_2S CEMS and all H_2S CEMS calibration, maintenance, quarterly cylinder gas audits and annual relative accuracy test audits. B. The rolling 12-month TRS concentration in fuel gas.	
4. Nitrogen oxides (NO_X): i. Emission Standard: A. For 21-H-701 and 21-H-2 combined: NO_X emissions shall not exceed 0.04 lb/mmBtu on a 3 hour rolling average and 20 lb/hour. *[Reference: APC-95/0570(A3) and APC-95/0784 (A2) and 7 **DE Admin Code 1142**, Section 2.3.2 dated 04/11/11]* B. For 21-H-701 and 21-H-2: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. C. **[RESERVED]**	ii. Compliance Method: A. Compliance with the Emission Standards shall be determined by CEMS. The Owner/Operator shall operate and maintain the CEMS to assure maximum data capture and at no time shall the data capture fall below eighty-five percent (85%) of the Process Heaters daily operating hours and eighty-five percent (85%) of the operating days per month. *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]* B. 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 dated 12/11/00]*	v. 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]* vi. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iii. Monitoring/Testing: The CEMS for NO_X and diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_X and diluent CEMS shall be established in accordance with 40 CFR, Part 60, Appendix "F". *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): Owner/Operator shall maintain the following records: *[Reference: APC-95/0570(A3) andAPC-95/0784(A2)]* 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 6.1.3.2 dated 12/11/00]* B. [**RESERVED**] C. [**RESERVED**] D. The hourly and rolling 12-month total emissions for NO_X shall be calculated and recorded for each month. E. CEMS data calibration and audit results. F. F-factor adjustments and the actual daily data capture.	
5. Carbon Monoxide (CO): i. Emission Standard: A. CO emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.03 lb/mmBtu and 91.4 tons in any rolling 12 month period. *[Reference: APC-*	ii. Compliance Method: Compliance with the emission standard shall be based on the stack test based emission factor and the rolling twelve month fuel usage. *[Reference: Permit:APC-95/0570(A2)]*	v. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
95/0570(A3) and APC-95/0784(A2)]	iii. Monitoring/Testing: *[Reference: APC-95/0570 (A2) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. The Owner/Operator shall conduct stack Tests at 5 year intervals to determine the emission factor in terms of lb/mmBtu in accordance with Reference Method 10 in Appendix "A" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv.	vi. 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. Volatile Organic Compounds (VOCs): i. Emission Standard: A. VOC emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.003 lb/mmBtu and 9.2 tons in any rolling twelve month period. *[Reference: APC-95/0570(A3) and APC-95/0784(A2)]* B. The leak detection and repair requirements to control fugitive VOC emissions from the Crude Unit shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR part 63, subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the Crude Unit shall be in accordance with the Consent Decree	ii. Compliance Method: A. Compliance with the Emission Standard (A) shall be based on the stack test based emission factor and the rolling twelve month fuel usage. *[Reference: APC-95/0570 (A2)]* B. Compliance with the emission standard B shall be based on the standards in 40 CFR subpart GGG and 40 CFR Part 63 subpart CC, as applicable. Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. *[Reference: APC-2004/0828 (A2)]* C. [**RESERVED**] iii. Monitoring/Testing: *[Reference: APC-95/0570 (A2) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	v. 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]* vi. 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].* None in addition to those required by Condition 3(c)(3) of this permit.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
for both new and existing components in light liquid and gaseous service. *[Reference: APC-2004/0828 (A2)]* ii. Operational Limitation: [**RESERVED**]	A. [**RESERVED**] B. The Owner/Operator shall conduct a stack test every 5 years to determine the emission factor in terms of lb/mmBtu in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60 and shall determine and report results as total hydrocarbons or shall conduct such other testing methodology and/or report results as approved by the Department. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.iv. and maintain the following records: *[Reference: APC-95/0570 (A2) and 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. [**RESERVED**] B. [**RESERVED**] C. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. D. [**RESERVED**]	
7. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than 20% opacity for an aggregate of more than 3 minutes in any 1	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator shall conduct daily	v. Reporting Requirement: 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]* vi. Certification Requirement:

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Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
hour or more than 15 minutes in any 24 hour period. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	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. B. If required under paragraph A 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 & 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].* iv. Recordkeeping *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. A record of daily qualitative emission observations and Method 9 evaluations when emissions were observed.	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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
8. Sulfuric Acid (H_2SO_4) i. Emission Standard: H_2SO_4 emissions from 21-H-701 and 21-H-2 combined shall not exceed 0.002 lb/mmBtu and 2.4 TPY. *[Reference: APC-95/0570(A3) and APC-95/0784(A2)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the rolling twelve month fuel usage and the rolling twelve month average sulfur content in the refinery fuel gas as measured by a TRS analyzer. *[Reference: APC-95/0570(A3) and APC-95/0784(A2)]* iii. Monitoring/Testing: 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-95/0570(A3) and APC-95/0784(A2)]*	v. Reporting Requirement: 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]* 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].*
9. Ammonia (NH_3) i. Emission Standard: NH_3 emissions from 21-H-701 and 21-H-2 combined shall not exceed 10 ppmvd @ 3% O_2 and 16.5 TPY. *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the Monitoring/Testing requirements. *[Reference: APC-95/0570 (A3) and APC-95/0784 (A2)]* iii. Monitoring/Testing: *[Reference: APC-95/0570(A3) and APC-95/0784(A2)]* 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. If at any time the grab samples indicate an NH_3	v. Reporting Requirement: 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]* 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	slip greater than 10 ppmvd @ 3% O_2, the Department reserves the right to require the Owner/Operator to conduct more frequent sampling and may include the requirement to install a CEMS.	
da. Emission Unit No. 22: Fluid Coking Unit (FCU): FCU, Wet Gas Scrubber (WGS), and Selective Non-Catalytic Reduction System (SNCR) (Emission point/s 22-2 or 22-3), FCU Start Up Heater 22-H-1 (Emission point/s 22-2 or 22-3), FCU Selas Steam Superheater 22-H-2 (Emission point 22-4), FCU Carbon Monoxide Boiler 22-H-3 (Emission point 22-2) and FCU Back Up Incinerator 22-H-4 (Emission point 22-3)		
1. Conditions Applicable to Multiple Pollutants: i. Operational Limitations *[Reference APC-81/0829 (A8)]* A. The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Owner/Operator determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in State of Delaware's 7 **DE Admin. Code** 1101, then the Owner/Operator shall submit a notification to the Department in advance of achieving a throughput in excess of the level	ii. Compliance Method: A. Compliance with Operational Limitations A, C, D, and H(1) shall be based on monitoring/testing and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. **[RESERVED]** C. Compliance with Operational Limitation C shall be based on continuous monitoring systems. *[Reference APC-81/0829(A8)]* D. Compliance with Operational Limitations I and J shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. E. Compliance with Operational Limitation G shall be based on engineering calculations. *[Reference APC-81/0829(A8)]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	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 and 40 CFR 61.357 dated 1/7/93 and APC-81/0829 (A8)]* A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information:

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Owner/Operator may operate the FCU at the throughput value addressed in the notification made under this Condition. B. With the exception of the FCU burner offgas, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm). C. The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating. D. During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Owner/Operator shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the	A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The Owner/Operator shall monitor the FCU throughput and coke burn rates. *[Reference APC-81/0829 (A8)]* C. During process unit turnarounds, the Company shall monitor the pressure in each process or vessel until its internal pressure is 136kPa or less. *[Reference APC-81/0829(A8)]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]**	1. **[RESERVED]** 2. **[RESERVED]** 3. **[RESERVED]** 4. A summary of all periods when the FCU WGS has been bypassed 5. Hourly SO_2 emissions during periods when the FCU WGS was bypassed 6. **[RESERVED]** 7. Back up incinerator operating data required pursuant to recordkeeping condition I.12. B. Quarterly NO_x, SO_2 and CO CEMS reports for the preceding quarter shall be submitted to the Department by January 31, April 30, July 31 and October 31 of each calendar year and shall include the following: 1. 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. 2. 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. 3. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted,

Condition 3 - Table 2 (Specific Requirements)

<table>
<tr><th>Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)</th><th>Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping</th><th>Reporting/Compliance Certification</th></tr>
<tr>
<td>FCU prior to commencing shut down of the FCU COB and/or the WGS.
E. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Owner/Operator, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the operational limits shown below by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS.
<table>
<tr><th>FCU Feed Rate (KBD)</th><th>FCU Feed Wt. % S</th><th>SO_2 Emissions (lb/hour)</th></tr>
<tr><td>31.5</td><td>6.0</td><td>4441.5</td></tr>
<tr><td>31.5</td><td>5.5</td><td>4071.4</td></tr>
<tr><td>31.5</td><td>5.0</td><td>3701.3</td></tr>
<tr><td>31.5</td><td>4.5</td><td>3331.1</td></tr>
<tr><td>31.5</td><td>4.0</td><td>2961.0</td></tr>
</table>
F. **[RESERVED]**
G. The Emission Standards in Condition 3 - Table 1.da.2 through da.10 below shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The Emission Standards shall apply</td>
<td>F. [**RESERVED**]
G. [**RESERVED**]
H. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3 - Table 1.da
I. The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for 5 years and shall make these records available to the Department upon written or verbal request. These records shall include:
1. CEMS data;
2. Calibration and audit results;
3. Stack test results;
4. The daily FCU COB fuel usage;
5. The coke burn rate and FCU throughput, both on a rolling 12 month average basis;
6. Detailed daily records of observations of visible emissions or the absence of visible emissions, or daily visible emissions observations, or other records identified in an approved alternative plan;
7. Date of every process unit or vessel turnaround;
8. COB firebox temperature;
9. Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere;
10. VOC leak repair records required by 40 CFR 60.592 for existing components in</td>
<td>such information shall be included in the report.
C. Records of the internal pressures of process units and vessels during process unit turnarounds. [Reference APC-81/0829(A8)]

vi. 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].</td>
</tr>
</table>

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hour from feed out of the FCU. In lieu of the Emission Standards, the following Emission Standards shall apply during planned start ups and shut downs of the FCU: 1. VOC – 1.6 lb/hr 2. H_2SO_4 – 58 lbs/hr 3. TSP – 47.1 lbs/hr 4. PM_{10} – 133.3 lbs/hr 5. SO_2 – 95 lbs/hr 6. CO – 415 lbs/hr 7. Ammonia – 2 lbs/hr H. This Permit does not authorize emissions exceeding the limits set forth in Condition 3 - Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator	light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. 11. Bypass stack SO_2 emissions as calculated according to Operational Limitation H; and 12. Backup incinerator operating hours, furnace temperature, percent O_2, and opacity. J. The depressurization venting of process units and vessels during turnaround shall be documented. K. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3 - Table 1.da.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
which the Owner/Operator has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether the Owner/Operator has reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown. 1. Should the Owner/Operator operate the backup incinerator, the Owner/Operator shall abide by the following: a. Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 seconds; and b. Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("dscf") shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O_2 and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
demonstrated by testing to achieve equivalent emissions. I. During process unit turnarounds the Company shall provide for the following: 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. 2. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 psia) or less. J. There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing unit. *[Reference: APC-81/0829(A8)]*		
2a. Particulate Matter: i. Emission Standard: A. For 22-H-1 and 22-H-2: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBTU heat input, maximum 2-hour average. *[Reference: **DE Admin. Code** 1104 Section 2.1 dated 2/1/81]* B. For 22-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5. *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]*	iii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on the fuel type and quality. B. Compliance with the Emission Standard (B) shall be based on monitoring/testing and recordkeeping requirements. C. Compliance with Emission Standard (C) shall be based upon stack testing conducted in accordance with Condition 3 - Table 1.da.2a.iv.A. D. Compliance with the Operational Limitation shall be demonstrated by record keeping. iv. Monitoring/Testing: *[Reference: APC-81/0829 (A8) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	vi. Reporting Requirement: 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. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
C. For the FCU WGS: 1. TSP emissions shall not exceed 60.9 lb/hour and 266.8 TPY, and 2. PM_{10} emissions (including TSP and H_2SO_4) shall not exceed 128.4 lb/hour and 562.4 TPY. *[Reference APC-81/0829 (A8)]* ii. Operational Limitation: With the exception of process off gas in units 22-H-3 and 22-H-4 only desulfurized RFG may be combusted in units 22-H-1, 22-H-2, 22-H-3 and 22-H-4. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]*	A. The Owner/Operator shall conduct annual performance testing of the WGS, unless the Department approves less frequent testing, as follows: 1. RESERVED 2. For TSP, testing in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. 3. For PM_{10} (including TSP and H_2SO_4), testing shall be in accordance with Methods 5B/202, or other testing methodology approved by the Department. v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
i. Emission Standard A. For 22-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 5 *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]* B. For the FCU WGS: 1. TSP emissions shall not exceed 60.9 lb/hour and 266.8 TPY, and 2. PM_{10} emissions (including TSP and H_2SO_4) shall not exceed 128.4 lb/hour and 562.4 TPY. *[Reference*	3. Compliance Method Compliance shall be demonstrated by records of the required monitoring. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 4. Monitoring *[Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]* A. Data Representativeness *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* 1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab	7. Reporting A. Quality Improvement Plan (QIP) 1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. *[Reference: 40 CFR Part 64.7(e) dated 10/22/97]* 2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit's operating time for a reporting period. *[Reference: 40 CFR Part 64.8(a) dated 10/22/97]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
APC-81/0829 (A8)] ii. Operational Limitations A. Indicators *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. Scrubber pressure drop shall be used as the primary indicator 2. Scrubber pump discharge shall be used as the secondary indicator B. Indicator Ranges *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. For the primary indicator: Minimum delta-P of 6 inches of water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period. 2. For the secondary indicator: Minimum discharge pressure satisfying the less stringent of: 115 psig or 95 % of the average discharge pressure recorded during performance testing as specified in for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour period. *[Reference: APC-81/0829 (A8)]* C. Excursions *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an	Droplet Separators. 2. For the secondary indicator: pressure drop indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps. B. Verification of Operational Status for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* C. QA/QC Practices for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]* D. Frequency for both indicators shall be continuous. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* E. Data Collection Procedures for both indicators shall be collected and stored via the Refinery Process Historian *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* F. Averaging Period for both indicators: On a 1-minute basis. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* 5. Testing *[Reference: 40 CFR Part 64.6 dated 10/22/97]* None in addition to those required by Condition 3 - Table 1da.2a.iv.A. 6. Record Keeping *[Reference: 40 CFR Part 64.9(b) dated 10/22/97]* A. The Company shall maintain records of the following: 1. Monitoring data;	B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values. *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* C. The report required by Condition 3(c)(2) of this permit shall also contain the following information: *[Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]* 1. Summary information on the number, duration, and cause of excursions or exceedances; 2. The corrective actions taken after an excursion or exceedance; 3. Summary information on the number, duration, and cause of monitor downtime incidents; and 4. If triggered, a description of the actions taken to implement the QIP. 8. Certification None in addition to that required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
inspection, corrective action, and a reporting requirement. *[Reference: 40 CFR Part 64.7(d) dated 10/22/97]* D. Monitoring/Measurement Approach *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]* 1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the quench/pre-scrubber recirculation pumps discharge. E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. *[Reference: 40 CFR Part 64.7(b) dated 10/22/97]* F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data	2. Monitor performance data; 3. Corrective actions taken; 4. Any written quality improvement plan (QIP) required pursuant to 64.8; 5. Any activities undertaken to implement a QIP; and 6. All supporting information used to demonstrate compliance.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in part by poor maintenance or careless *operation are not malfunctions.* *[Reference: 40 CFR Part 64.7(c) dated 10/22/97]*		
3. Sulfur Dioxide (SO_2): i. Emission Standards: A. SO_2 emissions shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 182.3 TPY. *[Reference APC-81/0829 (A8)]*	ii. Compliance Method: *[Reference : 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on CEMS. *[Reference APC-81/0829(A8)]* iii. Monitoring/Testing: *[Reference APC-81/0829 (A8) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. RESERVED B. The CEMS for SO_2 and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the SO_2 and O_2 CEMS shall be established in accordance with the procedures in 40 CFR 60, Appendix "F". iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
4. Nitrogen Oxides (NO_X): i. Emission Standard: A. For Unit 22-H-2: NO_X emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference: 7 **DE Admin. Code** 1112, Section 3.3.2 dated 11/24/93]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. C. NO_X emissions from the FCU WGS shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis. *[Reference APC-81/0829(A8)]*	ii. Compliance Method: A. Compliance with Emission Standard (A). shall be by conducting an annual tune up of each unit by qualified personnel. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. 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 dated 12/11/00]* C. Compliance with the Emission Standard (C) shall be based on CEMS. *[Reference APC-81/0829(A8)]* iii. Monitoring/Testing: A. For Unit 22-H-2: None in addition to the annual tune up required in Compliance Method A. B. The CEMS for NO_X and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_X and O_2 CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR, Part 60. *[Reference APC-81/0829 (A8)]*. 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 dated 12/11/00]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. A log of all tune ups performed and documentation of qualifications of personnel	v. Reporting: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* B. RESERVED vi. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	responsible for conducting the tune up. B. 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 6.1.3.2 dated 12/11/00]* C. [**RESERVED**] D. [**RESERVED**]	
5. Carbon Monoxide (CO): i. Emission Standards: *[Reference APC-81/0829 (A8)]* A. CO emissions from the FCU WGS shall not exceed 500 ppm dry @ 0% O_2 on an hourly average, 200 ppm dry @ 0% O_2 on a rolling 365 day average, and 694.4 TPY. B. The Owner/Operator shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.	ii. Compliance Method *[Reference APC-81/0829 (A8)]*: A. Compliance with Emission Standard (A) shall be based on CEMS. B. Compliance with Emission Standard (B) is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis. iii. Monitoring/Testing: A. The Owner/Operator shall monitor the firebox temperature of the FCU COB continuously. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The QA/QC procedures for the CO CEMS and shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): A. COB firebox temperature. B. The rolling 12 month total emissions for CO shall be calculated and recorded each month in an easily accessible format. C. [RESERVED]	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
6. Volatile Organic Compounds (VOCs): i. Emission Standards: *[Reference APC-81/0829 (A8)]* A. VOC emissions from the FCU WGS shall not exceed 0.14 lb/mmDSCF of stack gas and 8.2 TPY. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service. ii. Operational Limitation: A. [**RESERVED**]	iii. Compliance Method *[Reference APC-81/0829 (A8)]*: A. Compliance with Emission Standard (A) shall be based on stack testing to be conducted in accordance with Condition 3 - Table 1.da.6.iii.A. B. Compliance with Emission Standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. C. [**RESERVED**] D. [**RESERVED**] iv. Monitoring/Testing: A. The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons. *[Reference APC-81/0829 (A8)]* v. Recordkeeping: Comply with "Conditions Applicable to Multiple	vi. Reporting Requirement: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-81/0829 (A8)]* 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Pollutants" in Condition 3 - Table 1.da.1.iv. A. [**RESERVED**] B. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-81/0829 (A8)]*	
7. Sulfuric Acid (H2SO4): i. Emission Standard: *[Reference APC-81/0829 (A8)]* A. H_2SO_4 emissions from the FCU shall meet one of the following standards: 1. H_2SO_4 emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd B. H_2SO_4 emissions from the FCU WGS shall not exceed 67.5 lb/hr and 295.7 TPY.	ii. Compliance Method: *[Reference APC-81/0829 (A8)]* Compliance with the Emission Standard (A) shall be based on stack testing conducted in accordance with Condition 3 - Table 1.da.7.iii. iii. Monitoring/Testing: The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. *[Reference APC-81/0829 (A8)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v. *[Reference : **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
8. Ammonia (NH_3): i. Emission Standard: Ammonia emissions from the FCU shall not exceed 2.3 lb/hour and 10.2 TPY. *[Reference APC-81/0829 (A8)]*	ii. Compliance Method: *[Reference APC-81/0829 (A8)]* Compliance with the Emission Standard shall be based on an initial performance test. iii. Monitoring/Testing: *[Reference APC-81/0829 (A8)]* The initial performance test shall be conducted in accordance with EPA Conditional Test Method 27. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
9. Lead (Pb): i. Emission Standard: Pb emissions from the FCU shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned and 0.12 TPY. *[Reference APC-81/0829 (A8)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. *[Reference APC-81/0829 (A8)]* iii. Monitoring/Testing: The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. *[Reference APC-81/0829 (A8)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
10. Hazardous Air Pollutants (HAPs): i. Emission Standards: A. Nickel (Ni) emissions shall not exceed 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY. *[Reference APC-81/0829 (A8)]* B. HAP emissions from the FCU from a Group 1 miscellaneous process vent, as defined by 40 CFR 63.641, shall be controlled in accordance with 40 CFR 63.643(b).	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. *[Reference APC-81/0829 (A8)]* iii. Monitoring/Testing: The Owner/Operator shall conduct performance testing every three years, unless the Department approves less frequent testing. *[Reference APC-81/0829 (A8)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.da.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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*
11. Visible Emissions: i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84 and APC-81/0829 (A8)].*	ii. Compliance Method: A. For units 22-H-2 and 22-H-4: Comply with "Visible Emissions Standard" in Condition 3 - Table 1.ob.1. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. For units 22-H-1 and 22-H-3 compliance shall be demonstrated by the AMP. iii. Monitoring/Testing: A. **[RESERVED]** B. For Units 22-H-2 and, when operating, 22-H-4, 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	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "General Conditions" in Condition 3 - Table 1.da.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	observation in accordance with Paragraph C below. 2. If no visible emissions are observed, no further action is required. C. For periods when the CO Boiler (22-H-3) is firing refinery fuel gas only, 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 E. 2. If no visible emissions are observed, no further action is required. D. AMP: The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than 20% for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period shall be based upon the following parametric monitoring: 1. The minimum delta-P across the Agglo-Filtering modules and Cycolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	basis; and 2. A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of: a. 115 psig, or b. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 3 – Table 1.da.2.iv.3, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 3 - Table 1.da.11.i using EPA Method 9. 3. Notwithstanding Condition 3 - Table 1.da.11.iii.D.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 3 - Table 1.da.11.iii.D.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Condition 3 - Table 1.da.11.i at the reduced discharge pressure. In	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 3 - Table 1.da.11.iii.D.1 to evaluate compliance with Condition 3 - Table 1.da.11.i. E. If required under paragraph C above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of 7 **DE Admin. Code** 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 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(c) dated 12/7/88].* iv. Recordkeeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternate plan.	

Condition 3 - Table 2 (Specific Requirements)

<table>
<tr><th>Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)</th><th>Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping</th><th>Reporting/Compliance Certification</th></tr>
<tr><td colspan="3">db. Emission Unit No. 22: Petroleum Coke Storage and Handling Complex: Emission Point 22-1</td></tr>
<tr><td>1. Particulate Matter (PM)
i. Emission Limitations:
A. PM emissions shall not exceed 0.2 grain/dscf from any baghouse exhaust. [Reference 7 DE Admin. Code 1105, Section 2.1, dated 2/1/81].
B. [RESERVED]
C. PM emissions from the following baghouses shall not exceed 0.014 grains/scf[1]:
<table><tr><th>Emission Pt</th><th>Control Number</th></tr><tr><td>PS-01A</td><td>Conveyor A, BH-1</td></tr><tr><td>PS-02A</td><td>Conveyor B, BH-2</td></tr><tr><td>PS-03A</td><td>Conveyor C, BH-3</td></tr><tr><td>PS-04A</td><td>Conveyor D, BH-4</td></tr><tr><td>PS-05</td><td>Railcar Loading, BH-5</td></tr></table>D. PM emissions from the Pugmills and Scrubber (Emission Pt. PS-06) shall not exceed 0.067 grains/scf[1].
E. Aggregate emissions from the emission points identified in sections B and C above, truck and railcar loading and from the storage pile in the barn shall not exceed 27.2 tons per year of PM and 20.1 tons per year of PM10. "Tons per year" shall mean</td>
<td>iii. Compliance Method:
A. [RESERVED]
B. [RESERVED]
C. [RESERVED]
D. [RESERVED]
E. Compliance with Emission Limitations (A) through (C) shall be based on initial stack tests for PM and PM10 shall be conducted at the scrubber and baghouses in accordance with the appropriate testing methods and at 5 year intervals thereafter. A list of baghouses to be tested shall be submitted for the Department's approval. After the initial tests, the Company may petition the Department to reduce the number of units retested. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A7)].
F. Compliance with Emission Limitation (D) shall be based upon stack test data conducted pursuant to Compliance Method (A) using the calculation methodology in its September 17, 2010 permit application. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A7)]
G. Compliance with Emission Limitation (D) shall be based upon stack test data conducted pursuant to Compliance Method (A) using the calculation methodology in its September 17, 2010 permit application. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A7)]).</td>
<td>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 and quarterly reports of the Daily Ambient TSP monitoring. [Reference 7 DE Admin. Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and APC-82/1209 (A7)]

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</td></tr>
</table>

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
total emissions on a rolling 12-month basis. F. The Company shall not cause or allow visible particulate emissions of any petroleum coke that is being transported by a motor vehicle within the refinery. G. The Company shall not cause or allow the transport of material to or from the barn in such a manner as may cause a condition of air pollution. *[Reference APC-82/1209 (A7)].* [1] *The outlet grain loading emission rate shall be the arithmetic mean of the results of the three test runs as required by the stack testing requirement.* ii. Operational Limitations: *[Reference APC-82/1209 (A7)].* A. [**RESERVED**] B. [**RESERVED**] C. The moisture content of the coke transported by truck shall be greater than 8% at all times and greater than 10% on an annual average basis. D. [**RESERVED**] E. [**RESERVED**] F. [**RESERVED**] G. [**RESERVED**] H. The Company shall pave and maintain as paved all roads and truck movement areas within the facility that	H. Compliance with Operational Limitation (C) shall be based on the sampling and monitoring requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A7)]* I. Compliance with Operational Limitations (J), (K) and (L) shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. J. Compliance with Operational Limitation (N) shall be based on continuously monitoring the differential pressure across the scrubber and the baghouses. K. Compliance with Operational Limitations (M) and (N) shall be based upon proper operation of the railcar loading dust collector system. Proper operation of the dust collector system shall be based on compliance with the manufacturer's recommended operating procedures and parameters. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209(A7)]* iv. Sampling/Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209(A7)]* A. [**RESERVED**]	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
are used in transporting or moving petroleum coke. I. The Company shall regularly use a street sweeper or other approved method to clean the paved areas where coke accumulates. J. Trucks containing coke must be covered at all times except when being loaded with coke or as soon as practicable thereafter. K. This permit does not authorize importing coke into the refinery and does not authorize the storage of coke in areas outside the coker silo and the coke barn. L. The differential pressure ranges for the scrubber and baghouses shall operate within the manufacturer's established ranges. M. The gravity chute and extendable load out spout for loading railcars shall extend to the railcar being loaded during railcar loading operations. The loading operation shall not generate any visible emissions at his transfer point. N. Railcar loading operations shall not be conducted unless its dust collector system is operating properly. Proper operation of the dust collector system shall be based on compliance with the manufacturer's recommended operating procedures and parameters.	B. [**RESERVED**] C. The moisture content of the coke shall be based on collecting a sample of coke each day that petroleum coke is loaded into trucks and analyzing the sample. After one year of testing demonstrating that the source is meeting the requirements, the Company may petition the Department to reduce the testing frequency to weekly. D. The Company shall conduct daily ambient TSP monitoring in accordance with the "Quality Assurance Project Plan & Standard Operation Procedures for the Ambient Continuous Particulate Air Quality Monitoring Program at the Motiva Delaware City Power Plant and Coke and Flux Handling/Storage Facility", dated April 2002. If no exceedance of the secondary Delaware TSP 24-hour AAQS is monitored for any one year period after the issuance of the operating permit, the Company may petition the Department to approve ceasing monitoring operations. v. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209 (A3)].* The following records shall be maintained in accordance with Condition 3(b): A. [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**] F. [**RESERVED**] G. [**RESERVED**]	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	H. [**RESERVED**] I. The rolling 12 month total TSP and PM_{10} emissions shall be calculated and recorded each month. J. Continuous scrubber and baghouse differential pressures when required. K. Stack test results and related data, regardless of whether or not the stack test is completed. L. Records of daily ambient TSP monitoring.	
2. Visible Emissions i. Emission Standards: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from a stationary 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 months in any 24 hour period. *[Reference 7 **DE Admin. Code** 1114, Section 2.1 dated 7/17/84 and APC-82/1209(A7)]*	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-82/1209(A7)]* A. For each baghouse, compliance shall be demonstrated by operating and monitoring a broken bag detection system or by performing daily qualitative stack observations in accordance with Monitoring/Testing Paragraph (A) below. B. For the scrubber, compliance shall be demonstrated by operating the scrubber within the specified differential pressure range established in accordance with Part 3, Condition 3 – Table 1.db.1.ii.H or by performing daily qualitative stack observations in accordance with Monitoring/Testing Paragraph (A) below. iii. Monitoring/Testing: A. When required by Section 2.ii above, the	v. Reporting Requirement: 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]* 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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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. B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of 7 **DE Admin. Code** 1120, 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 & 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 and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00].* iv. Record keeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The Owner/Operator shall maintain the following records in accordance with Condition 3(b):	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	A. Observation records shall be maintained and made available to the Department upon request. B. The date, time, location and corrective actions taken when the broken bag detection system indicates a potential failure.	
e. Emission Unit No. 23: Fluid Catalytic Cracking Unit (FCCU); FCCU Reactor, Catalyst Regenerator, Start up Heaters 23-H-1 A and B, Carbon Monoxide Boiler, 23-H-3, and Wet Gas Scrubber System (WGS) (emission point 23-1);		
1. General Conditions: i. Operational Limitations: *[Reference APC-82/0981 (A9)]* A. Except as allowed by operational limitation G, the Owner/Operator shall not burn any fuel gas in any fuel gas combustion device that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm). B. Except as provided in Operating Limitation J, the COB, Belco pre-scrubber, the amine-based Cansolv regenerative WGS, and the caustic polishing scrubber shall be operating properly at all times when the FCCU is operating. C. During planned start ups of the FCCU, the FCCU COB and WGS shall be operating prior to introducing feed into the riser reactor of the FCCU. In the event of a planned shutdown of the FCCU, the FCCU COB or the WGS, the Owner/Operator shall continue to	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Operational Limitations A and B shall be based on monitoring/testing and recordkeeping requirements. B. Compliance with operational limitations C, and E shall be based on information available to the Department concerning the Owner/Operator's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. C. Compliance with the operational limitations F and G shall be demonstrated by monitoring/testing and record keeping requirements. D. Compliance with Operational Limitation (D) shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. *[Reference APC-82/0981(A9)]*	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00and APC-82/0981 (A9)]* A. Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Owner/Operator. An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery. The required reports shall contain the following information: 1. [**RESERVED**] 2. [**RESERVED**] 3. A summary of all periods when the FCCU WGS has been bypassed.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
operate the FCCU COB and WGS until there is no feed entering the riser reactor of the FCCU prior to commencing shut down of the FCCU COB and the WGS. D. **[RESERVED]** E. **[RESERVED]** F. With the exception of operational Limitation (G), 23-H-1A/B and the FCCU COB (23-H-3) shall only combust desulfurized RFG. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2 dated 12/11/00]* G. 23-H-3 may combust Alky Merox spent air from 24-C-10, Poly Merox spent air from 26-C-5 and process off gas from the regenerator. *[Reference:40 CFR Part 63, Subpart CC]* H. The Emission Standards in Condition 3 - Table 1.e.4 through e.9 below, with the exception of e.7, shall not apply during periods when the FCCU COB is combusting refinery fuel gas only and during periods of planned shut downs and planned start ups of the FCCU for a period of time not to exceed 80 hours for each planned shut down and each planned start up event. The planned shut down period shall begin 8 hours prior to the time when there is no feed entering the FCCU reaction section. The planned start up period shall begin when dry-out of the FCCU is	E. Compliance with Operational Limitations H shall be determined based on engineering calculations. iii. Monitoring/Testing: A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 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 evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A."*[Reference7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/00]* B. **[RESERVED]** C. During process unit turnarounds, the Company shall monitor the pressure in each process or vessel until its internal pressure is 136kPa or less. *[Reference APC-82/0981(A9)]* iv. Recordkeeping: *[Reference APC-82/0981 (A9)]* A. CEMS data, calibration and audit results. B. The type of fuel combusted in the FCCU COB and 23-H-1 A and B and the daily FCCU COB fuel usage.	4. Actual hourly SO_2 emissions during periods when the FCCU WGS was bypassed. 5. **[RESERVED]** B. Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include the following: 1. 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 with the applicable standard was exceeded. 2. 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. 3. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. C. **[RESERVED]** D. Quarterly SO_2 and CO CEMS reports for the preceding quarter shall be submitted

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
commenced. The Emission Standards in Condition 3 - Table 1.e.2 through e.9 shall apply to each planned start up event after the expiration of the 80 hour period following commencement of FCCU dry-out. In lieu of the Emission Standards, the following emission limitations shall apply during planned start ups and shut downs of the FCCU: 1. VOC – 9.5 lb/hr 2. PM – 500 lbs/hr 3. SO_2 – 165 lbs/hr 4. CO – 860 lbs/hr I. In the event of an unplanned shutdown of the CO Boiler, the Owner/Operator shall as expeditiously as practicable but no later than 24 hours initiate promoted burn in the FCCU regenerator to control CO emissions in accordance with Condition 3, Table 1.e.5.i. J. Except as provided in Operational Limitation D, this permit does not authorize emissions exceeding the limits set forth in Condition 3, Table 1.e.2 through e.9 including emissions during periods of any unplanned shutdown of the FCCU, or any unplanned shutdown or bypass	C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]** F. **[RESERVED]** G. FCCU COB firebox temperature H. **[RESERVED]** I. **[RESERVED]** J. The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 3 - Table 1.e. K. Stack test results; L. The daily FCCU COB fuel usage; M. Detailed daily records of observations of visible emissions or the absence of visible emissions, or daily visible emissions observations, or other records identified in an approved alternative plan; N. Date of each FCCU process unit or vessel turnaround; O. Date and duration of seamless bypass operation; P. Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere; and Q. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. R. The depressurization venting of process units and vessels during turnaround shall be	to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7(c) and (d). vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
of the FCCU COB, or the Belco prescrubber or WGS system. Instead, in the event of any unplanned shutdown of the FCCU or any unplanned shutdown or bypass of the FCCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under 7 DE Admin. Code 1100. Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown; 2) whether the Owner/Operator has taken all reasonable and prudent steps to	documented. *[Reference APC-82/0981(A9)]*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
abide by the emissions limit conditions; 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Owner/Operator has reduced throughput to the FCCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown. K. During process unit turnarounds the Company shall provide for the following: 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. 2. No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 psia) or less. L. The Company shall evaluate the performance of the FCCU over a		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
contiguous 30-month period to verify the improvements anticipated by the project (the equipment authorized to be constructed by APC-82/0981-CONSTRUCTION (A9)(NSPS) issued February 3, 2011). The Company shall, based on this evaluation, submit a proposal to incorporate revised and lower emission limits for PM and SO_2 emissions, to the Department for its approval and incorporation into an operating permit. The proposal shall be submitted to the Department within 90 days of the end of the evaluation period. M. In the event that the FCCU COB is bypassed and/or shutdown, operation of the FCCU shall be in accordance with Attachment G of this permit.		
2a. Particulate Matter: i. Emission Limitations: A. [**RESERVED**] B. TSP emissions from the WGS + system shall not exceed 1lb/1000 lb of coke burned and 203 TPY. *[Reference APC-82/0981 (A9)]*	iii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. [**RESERVED**] B. Compliance with Emission Limitation (B) is based on stack testing conducted in accordance with Condition 3 - Table 1.e.2a.iv. iv. Monitoring/Testing: *[Reference: APC-81/0829 (A9) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* The Owner/Operator shall conduct performance testing as follows annually, unless the	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv. and "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi. Certification Requirement: That required by Condition 3(c)(3) of this

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Department approves less frequent testing: A. [**RESERVED**] B. TSP: in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. C. PM10: in accordance with Methods 5B/202, or other testing methodology approved by the Department. The Company may petition the Department to decrease the frequency of PM10 performance tests based on the results of any performance testing. v. Record Keeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
2b. Compliance Assurance Monitoring Plan for Particulate Matter		
i. Emission Standard A. For 23-H-3: The Owner/Operator shall not cause or allow the emission of particulate matter in excess of those specified in Table 4 of Regulation 1105 *[Reference: **DE Admin. Code** 1105 Section 5.2 dated 2/1/81]* B. For the FCCU WGS: 1. TSP emissions shall not exceed 1 lb/1000 lb of coke burned and 203 TPY. *[Reference APC-82/0981 (A9)]* ii. Operational Limitations: A. Indicators: *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. Scrubber pressure drop shall be used	iii. Compliance Method Compliance shall be demonstrated by records of the required monitoring. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 dated 12/11/00 and 6.2.1 dated 12/11/00]* iv. Monitoring *[Reference: 40 CFR Part 64.3 and 64.4 dated 10/22/97]* A. Data Representativeness *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* 1. For the primary indicator: pressure drop indication shall be based on pressure indicators located prior to the Agglo-filtering modules and prior to the Cylolab Droplet Separators. 2. For the secondary indicator: pressure drop	v. Reporting A. Quality Improvement Plan (QIP) 1. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if any stack tests reveal higher than permitted emission rates. *[Reference: 40 CFR Part 64.7(e) dated 10/22/97]* 2. The Company shall submit a QIP in accordance with 40 CFR Part 64.8(b) if excursions exceed 5% of the unit's operating time for a reporting period. *[Reference: 40 CFR Part 64.8(a) dated 10/22/97]* B. The Company shall notify the Department at least 30 days prior to any reestablishment of excursion values.

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
as the primary indicator 2. Scrubber pump discharge shall be used as the secondary indicator B. Indicator Ranges *[Reference: 40 CFR Part 64.6(c)(1)(i) dated 10/22/97]* 1. For the primary indicator: Minimum delta-P of 6 inches of water column for no more than 3 minutes in any 1 hour or more than 15 minutes in any 24-hour period. 2. For the secondary indicator: Minimum discharge pressure satisfying the less stringent of: 115 psig or 95 % of the average discharge pressure recorded during performance testing as specified in **Permit: APC-81/0829 (A9)** for no more than 3 minutes in any 1-hour or more than 15 minutes in any 24-hour period. C. Excursions *[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* 1. An excursion shall be defined as any deviation from the ranges specified in the Indicator Ranges (B)(1) or (B)(2). 2. An excursion shall trigger an inspection, corrective action, and a reporting requirement. *[Reference: 40 CFR Part 64.7(d) dated 10/22/97]* D. Monitoring/Measurement Approach *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]*	indication shall be based on a pressure indicator located after the quench/pre-scrubber recirculation pumps. B. Verification of Operational Status for both indicators: Annual stack testing conducted in accordance with Condition 3 - Table 1.da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* C. QA/QC Practices for both indicators shall be Annual stack testing conducted in accordance with Condition 3 - Table 1da.2a.iv.A. *[Reference: 40 CFR Part 64.6(c)(1)(ii) dated 10/22/97]* D. Frequency for both indicators shall be continuous. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* E. Data Collection Procedures for both indicators shall be collected and stored via the Refinery Process Historian. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]* F. Averaging Period for both indicators shall be on a 1-minute basis. *[Reference: 40 CFR Part 64.6(c)(1)(iii) dated 10/22/97]*	*[Reference: 40 CFR Part 64.6(c)(2) dated 10/22/97]* C. The report required by Condition 3(c)(2) of this permit shall also contain the following information: *[Reference: 40 CFR Part 64.9(a)(2) dated 10/22/97]* 1. Summary information on the number, duration, and cause of excursions or exceedances; 2. The corrective actions taken after an excursion or exceedance; 3. Summary information on the number, duration, and cause of monitor downtime incidents; and 4. If triggered, a description of the actions taken to implement the QIP. vi. Certification None in addition to that required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.2 dated 12/11/2000]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
1. Pressure drop for the primary indicator shall be based on pressure transducer measurements obtained upstream of the Agglo-filtering modules and upstream of the Cylolab Droplet Separators. 2. Pressure drop for the secondary indicator shall be based on pressure transducer measurements obtained at the quench/pre-scrubber recirculation pumps discharge. E. At all times, the Company shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. *[Reference: 40 CFR Part 64.7(b) dated 10/22/97]* F. At all times, the Company shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are cause in part by poor maintenance or careless operation are not malfunctions. *[Reference: 40 CFR Part 64.7(c) dated 10/22/97]*		
3. Sulfur dioxide (SO_2): i. Emission Standards: A. SO_2 emissions from the FCCU WGS+ shall not exceed 25 ppmvd @ 0% O_2 on a rolling 365 day average, 50 ppmvd @ 0% O_2 on a rolling 7 day average, and 352 TPY. *[Reference APC-82/0981 (A9)]*	ii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) shall be based on a continuous monitoring system and recordkeeping. iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)]* A. The SO_2 emissions shall be continuous monitored by CEMS. B. RESERVED C. The CEMS for SO_2 and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the SO_2 and O_2 CEMS shall be in accordance with the procedures described in 40 CFR 60, Appendix "F". For the purpose of determining the Relative Accuracy of the CEMS, the applicable standard shall be 25 ppmvd. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
4. Nitrogen Oxides (NO_X): i. Emission Standard: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j.	ii. Compliance Method: A. Compliance with the Emission Standards shall be based on CEMS. 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 dated 12/11/00]* iii. Monitoring/Testing: A. NO_X emissions shall be monitored by CEMS. B. The CEMS for NO_X and O_2 must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_X and O_2 CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix "F". *[Reference APC-82/0981 (A9)]* C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. iv. Recordkeeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	v. Reporting: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv and "General Conditions" in Condition 3 - Table 1.e.1.v. B. [**RESERVED**] vi. 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]*
5. Carbon Monoxide (CO): i. Emission Standard: *[Reference APC-82/0981 (A9)]* A. CO emissions from the FCCU WGS+ shall not exceed 500 ppmv dry as a 1-hour average, and 3,085 TPY. B. The Owner/Operator shall not cause or allow the emission of carbon monoxide	ii. Compliance Method: *[Reference APC-82/0981 (A7)]* A. Compliance with Emission Standard (A) shall be based on CEMS. B. Compliance with Emission Standard (B) is defined as maintaining a firebox temperature of no less than 1300° F as measured on a minute average basis.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
from the FCCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCCU COB, or combusted in the FCCU regenerator when operating in full burn mode.	iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)]* A. The Owner/Operator shall continuously monitor the temperature of the FCCU COB firebox. B. CO emissions shall be monitored by CEMS. C. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple pollutants" in Condition 3 - Table 1.e.1.iv.	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]*
6. Volatile Organic Compounds (VOCs): i. Emission Standard: *[Reference APC-82/0981 (A9)]* A. VOC emissions from the FCCU WGS+ shall not exceed 0.40 lb/mmdcsf and 41.4 tons per year. B. The leak detection and repair requirements to control fugitive VOC emissions from the FCCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and	ii. Compliance Method: *[Reference APC-82/0981 (A7)]* A. Compliance with Emission Standard A shall be based on monitoring/testing and recordkeeping requirements B. Compliance with emission standard B for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177. C. Compliance with the standards in 40 CFR subpart GGG for existing components in light liquid gaseous service shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648. D. **[RESERVED]** E. **[RESERVED]**	v. Reporting Requirement: A. That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3, table 1.e.1.iv. "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* B. Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-82/0981 (A9)]* vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gaseous service. C. There shall be no emissions of uncondensed VOCs from the condensors, hot wells or accumulators of any vacuum producing system. ii. RESERVED	iii. Monitoring/Testing: *[Reference APC-82/0981 (A9)]* A. The Owner/Operator shall conduct performance testing every three years. Each performance test conducted shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60. The Company may petition the Department to decrease the frequency of testing based on the results of any performance testing. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
7. Sulfuric Acid (H_2SO_4): i. Emission Standard: A. H_2SO_4/SO_3 emissions from the FCCU WGS+ shall meet one of the following standards: *[Reference APC-82/0981 (A9)]* 1. H_2SO_4 emissions shall be reduced by at least 40% across the wet gas scrubber system; or 2. The outlet concentration of H_2SO_4/SO_3 from the stack shall be no greater than 10 ppmvd.	ii. Compliance Method: Compliance with the Emission Standard A shall be based on stack testing conducted in accordance with Condition 3 - Table 1.e.7.iii. monitoring/testing and recordkeeping requirements. *[Reference APC-82/0981 (A9)]* iii. Monitoring/Testing: The Owner/Operator shall conduct annual performance tests, unless the Department approves less frequent testing, in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department. *[Reference APC-82/0981 (A9)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
8. Lead (Pb): i. Emission Standard: Pb emissions from the FCCU WGS+ shall not exceed 4.37 E-04 pounds per thousand pounds of coke burned. *[Reference APC-82/0981 (A9)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. *[Reference APC-82/0981 (A9)]* iii. Monitoring/Testing: The Owner/Operator shall conduct performance testing every three years based on Reference Method 12 in Appendix "A" of 40 CFR Part 60, unless the Department approves less frequent testing. *[Reference APC-82/0981 (A9)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv and "General Conditions" in Condition 3 - Table 1.e.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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]*
9. Hazardous Air Pollutants (HAPs): *[Reference APC-82/0981 (A9)]* i. Emission Standard: The Owner/Operator shall comply with all the applicable requirements of 40 CFR Part 63, subpart UUU.	ii. Compliance Method: *[Reference Permit APC-82/0981 (A9)]* Compliance with the Emission Standard shall be based on monitoring/testing and recordkeeping requirements iii. Monitoring/Testing: *[Reference Permit APC-82/0981 (A9)]* A. CO emissions shall be monitored by CEMS. B. The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.e.1.iv.	v. Reporting Requirement: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. *[Reference: 40 CFR 63, Subpart UUU, §63.1575(c)]* 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]*
10. Visible Emissions: i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Sections 2.1 and 2.3, dated 7/17/84, 40 CFR Part 60, Subpart J, §60.102(a)(2) and 7 **DE Admin. Code** 1120 Section 11 dated 11/27/85 and APC-82/0981(A9)].* B. [**RESERVED**]	ii. Compliance Method: A. Compliance with Emission Standard A shall be based on Monitoring/Testing requirements. *[Reference APC-82/0981 (A9)]* B. [**RESERVED**] iii. Monitoring/Testing: The Owner/Operator shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCCU WGS stack, when it is operating, satisfies the requirements of Emission Standard (A) shall be based upon the following parametric monitoring: A. The minimum ΔP across the Agglo-Filtering modules and Cycolab Droplet Separators shall be 6 inches WC, evaluated on a one minute average basis; and B. A minimum discharge pressure, evaluated on a one minute average basis, from the	v. Reporting Requirement: 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]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	quench/pre-scrubber recirculation pumps satisfying the less stringent of: 1. 115 psig, or 2. The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition – Table 1.e.2.iv, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Emission Standard (A) using EPA Method 9. C. Notwithstanding Monitoring/Testing Conditions (A) and (B), when the COB is on line and operating, if either the differential pressure across the Agglo-Filtering Modules/Cyclolab Droplet Separators or the discharge pressure from the quench/prescrubber falls below the minimum levels established under Monitoring/Testing Conditions (A) and (B) for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Owner/Operator may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Emission Standard (A) at the reduced parameter level. In such case, the new minimum value for the parameter in question shall be the average value recorded during the Method 9 test, and	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	shall be used in conjunction with Condition 3 - Table 1.e.10.iii.A to evaluate compliance with Emission Standard (A). *[Reference APC-82/0981 (A9)]*. D. [**RESERVED**] E. [**RESERVED**] F. During periods when the COB is bypassed, the Company shall perform a daily visual emission test in accordance with EPA Reference Method 9 to establish that the visible emissions do not exceed the opacity standard specified in Condition 2.2. iv. Record keeping: The following records shall be maintained in accordance with Condition 3(b): Detailed daily records of observations of visible emissions or the absence of visible emissions, or daily visible emissions observations, or other records identified in an approved alternative plan. *[Reference APC-82/0981(A9)]*	
f. Emission Unit 24: Refinery Gas Plant (No emission points, i.e., This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
ga. Emission Unit No. 25: Reformer and Reformulated Gasoline 2000 Project (RFG 2K Project): Cracked Naphtha Hydrotreater (CNHT) Unit, Butamer Unit and Cooling Tower (Emission points 25-1 and 25-2)		
1. Conditions Applicable to Multiple Pollutants: i. Operational Limitations: A. [**RESERVED**] B. [**RESERVED**]	ii. Compliance Method: *[Reference: APC-98/0522(A1)]* A. [**RESERVED**] B. [**RESERVED**] C. Compliance with Operational Limitations (C) and (D) shall be based on recordkeeping.	v. Reporting Requirement: 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
C. [**RESERVED**] D. Only desulfurized refinery fuel gas (RFG) or natural gas may be fired in units 25-H-401 and 25-H-402. *[Reference: APC-98/0523(A1)]* E. The hydrogen sulfide (H_2S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a 3 hour rolling average basis. *[Reference: APC-98/0523(A1)]*	D. Compliance with Operational Limitation in (E) shall be based on CEMS iii. Monitoring/Testing: *[Reference: APC-98/0522(A1), APC-98/0523(A1) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall monitor the fuel usage of 25-H-401 and 25-H-402 on an hourly basis. B. The Owner/Operator shall monitor fuel HHV on a daily basis. The minimum data capture requirement for the HHV of the fuel shall be no less than 95 percent of the time in any twelve consecutive months, i.e., the Owner/Operator may miss no more than 18 days of sampling and/or analyzing the fuel in any twelve consecutive months. For any missing data the Owner/Operator shall substitute the highest recorded daily HHV for the previous month. *[Reference: APC-98/0522]* C. The Owner/Operator shall monitor H_2S concentration in RFG continuously. The monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F." The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B."	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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." D. The Owner/Operator shall continuously monitor the cooling water flow rate. iv. Recordkeeping: The Owner/Operator shall maintain the following records in accordance with Condition 3(b): *[Reference: APC-98/0522 and APC-98/0523].* A. [**RESERVED**] B. [**RESERVED**] C. [**RESERVED** D. [**RESERVED**] E. [**RESERVED**] F. [**RESERVED**] G. All exceedances of the H_2S in RFG as measured by the H_2S CEMS. H. Hourly fuel gas flow to each heater.	
2. Particulate Matter: i. Emission Standards: A. PM_{10} emissions shall not exceed the following: *[Reference: APC-98/0522(A1) and 7 **DE Admin. Code** 1104, Section 2.1 dated 2/1/81]* 1. For 25-H-401: 2.4 TPY on a rolling twelve month basis 2. For 25-H-402: 1.7 TPY on a rolling twelve month basis 3. [**RESERVED**] B. [**RESERVED**] C. Cooling tower PM_{10} emissions shall not exceed 6.6 tons per year on a rolling twelve month basis. *[Reference:*	iii. Compliance Method: A. Compliance with Emission Standard (A) shall be based on the fuel gas usage for each heater. *[Reference: APC-98/0522(A1)]* B. [**RESERVED**] C. Compliance with Emission Standard (C) shall be based on the proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulated and on the monitoring requirements. *[Reference: APC-98/0523]* iv. Monitoring/Testing: *[Reference: APC-98/0522(A1), APC-*	vi. Reporting Requirement: 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
APC-98/0523(A1)]	*98/0523(A1) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. [**RESERVED**] B. [**RESERVED**] C. Compliance with Emissions Stand (C) shall be based on proper operation of the high-efficiency mist eliminators having a vendor guaranteed emission factor of 0.002% drift loss per pound of cooling water circulated and demonstrated by conducting a quarterly test of total solids using method 2504B of Standard Methods for the Examination of Water and Wastewater and by continuously monitoring the cooling water flow rate. D. Compliance with Emission Standard A shall be based on performance testing for PM_{10} in accordance with Methods 5B/202, or other testing methodology approved by the Department at five year intervals. *[Reference APC-98/0522(A1)]* v. Recordkeeping: The Owner/Operator shall maintain the following records in accordance with Condition 3(b): *[Reference: APC-98/0522(A1), APC-98/0523(A1) and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Results of quarterly Method 2540B tests. B. [**RESERVED**] C. Results of cooling water flow rate and VOC concentration. D. The rolling 12 month total emissions shall be calculated and recorded each month. *[Reference: APC-98/0523(A1)]*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
3. Sulfur dioxide (SO_2): i. Emission Standards: *[Reference: APC-98/0522(A1)]* A. For 25-H-401: 8.4 TPY on a rolling twelve month basis. B. For 25-H-402: 6.0 TPY on a rolling twelve month basis.	iii. Compliance Method: *[Reference: Permit:APC-98/0522(A1)]* A. Compliance with Emission Standards (A) and (B) shall be based on the rolling twelve month fuel usage and the rolling twelve month average S content of the fuel as determined using H_2S CEMS. iv. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iii. v. Recordkeeping: The Company shall maintain the following records in a readily accessible location for 5 years and shall make these records available to the Department upon request: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iv. B. The rolling 12 month total emissions shall be calculated and recorded each month. *[Reference: APC-98/0523(A1)]*	v. 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]* 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]*
4. Nitrogen Oxides (NO_X): i. Emission Standards: *[Reference: APC-98/0522(A1)]* A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. B. From 25-H-401 and 25-H-402: 0.04 lb/mmBtu.	iii. Compliance Method: *[Reference: APC-98-0522(A1)]* A. Compliance with the Emission Standards shall be based on the fuel gas usage for each heater, the HHV of the fuel obtained from daily samples and the annual stack test based emissions factors. B. For 25-H-401 and 25-H-402, oxygen parametric monitoring may be used as an alternative method. Hourly average NOx emissions shall be calculated consistent with the methodologies of the Premcor submittals	v. 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]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	to the Department dated November 19, 2007 and April 16, 2008 or by alternate methodologies approved by the Department. 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 Sections 6.1.3.1 dated 12/11/00].* iv. Monitoring/Testing: *[Reference: APC-98-0522]* A. Annual stack emission testing shall be conducted using EPA Reference Method 7 E in Appendix "A" of 40 CFR Part 60 on each heater to determine compliance with the NO_X emission factor of 0.029 lb/mmBtu. B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00].* v. Recordkeeping: Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00].*	
5. Carbon Monoxide (CO): i. Emission Standards: *[Reference: APC-98/0522(A1)]* A. For 25-H-401: 10.9 TPY on a rolling twelve month basis. B. For 25-H-402: 7.7 TPY on a rolling twelve month basis.	ii. Compliance Method: *[Reference: APC-98/0522(A1)]* Compliance with the emission standards shall be based on the fuel gas usage for each heater. iii. Monitoring/Testing: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iii. B. The owner or operator shall conduct	v. 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]* vi. Certification: That required by Condition 3(c)(3) of this permit. *[Reference: 7 **DE Admin. Code** 1130*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	performance testing for CO in accordance with Method 10, or other testing methodology approved by the Department at five year intervals. *[Reference APC-98/0522(A1)]* iv. Recordkeeping: The Company shall maintain the following records in a readily accessible location for 5 years and shall make these records available to the Department upon request: A. The rolling 12 month total emissions shall be calculated and recorded each month. *[Reference: APC-98/0523(A1)]* B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.ga.1.iv.	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
6. Volatile Organic Compounds (VOCs): i. Emission Standards: A. For 25-H-401 and 25-H-402: VOC emissions shall not exceed 2.8lb/mmSCF of fuel combusted. *[Reference: APC-98/0522(A1)]* B. [**RESERVED**] C. Cooling tower fugitive VOC emissions shall not exceed 5.5 tons per year on a rolling quarterly basis. *[Reference: APC-98/0523 (A1)]* D. Fugitive VOC emissions from the new equipment at the CNHT, SHU and DGA and new ancillary equipment and tie-ins shall not exceed 10.4 tons per year on a rolling quarterly basis. *[Reference: APC-98/0523 (A1)]* E. With the exception of leak definitions	ii. Compliance Method: A. Compliance with Emission Standard (A) shall be based on fuel gas usage for each heater. *[Reference: APC-98/0522(A1)]* B. Compliance with Emission Standards (D) and (C) shall be based on the monitoring and testing requirements *[Reference: APC-98/0523(A1)]* C. Compliance with Emission Standard (E): 1. For new components in light liquid and gaseous service, compliance shall be based on compliance with the standards in 40 CFR 63.648. 2. Compliance with the standards in 40 CFR 60 Subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592.	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
for pumps and valves specified in Part 2, Condition 3 – Table 1.bg.1.i.B, the leak detection and repair requirements to control fugitive VOC emissions shall be in accordance with the requirements of 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 63 Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the CNHT Unit shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.	iii. Monitoring/Testing: *[Reference: APC-98/0522(A1) and APC-98/0523(A1), and 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. For determining compliance with Emission Standard (D) the Owner/Operator shall use the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995. B. Compliance with Emission Standard (C), shall be demonstrated by monitoring the cooling water flow rate and the concentration of the total VOC. The cooling water flow rate shall be monitored continuously and the VOC concentration in the cooling water shall be obtained quarterly using a method approved by the Department. To determine the cooling water VOC concentration, samples shall be taken at the entrance and exit of the cooling tower and at the point of makeup water addition. The entrance is the point at which cooling water leaves the cooling tower prior to being returned to the process equipment. The exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid. A minimum of three sets of samples shall be taken at the entrance and exit and the point of make-up water entry. The average concentrations shall then be calculated for each set of samples. C. At five year intervals the owner or operator shall conduct performance testing for VOC in	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60 and shall determine and report results as total hydrocarbons or shall conduct such other testing methodology and/or report results as approved by the Department. *[Reference APC-98/0522(A1)]* iv. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: APC-98/0522(A1) and APC-98/0523(A1), 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Results of quarterly LDAR monitoring showing calculated VOC emissions in tons per year by component type on a rolling quarterly basis. B. Results of cooling water VOC monitoring. C. **[RESERVED]**	
7. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period. *[Reference 7 **DE Admin. Code 1114**, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00].* iii. Monitoring/Testing: 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	v. 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]* vi. 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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	observation in accordance with Paragraph (B) below. 2. If no visible emissions are observed, no further action is required. 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 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] and 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00].* iv. Record keeping: The Company shall maintain the following records in a readily accessible location for 5 years and shall make these records available to the Department upon request: A. Records of daily qualitative emission observations and Method 9 evaluations when emissions are observed shall be maintained for 5 years. *[Reference: APC-98/0522(A1)]* B. Records of all maintenance performed on these units.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
gb. Emission Units No. 24, 25 & 43: Tier 2 Gasoline Project involving modifications, ancillary equipment and tie-ins, and relocation of certain existing equipment to the existing cracked naphtha hydrotreater (CNHT, Unit 25), the existing Selective Hydrogenation Unit at the Ether Plant (SHU, Unit 43), and the Diglycolamine system (DGA, Unit 24)		
1. Volatile Organic Compounds (VOCs): i. Emission Standards: *[Reference: APC-2005/0197 and APC-98/0523(A1)]* A. Fugitive VOC emissions from the new equipment at the CNHT, SHU and DGA and the new ancillary equipment and tie-ins shall not exceed 10.4 tons per year on a rolling quarterly basis. B. Fugitive VOC emissions from the new equipment shall utilize an internal leak definition of 2,000 ppm for all pumps and 500 ppm for all valves, excluding pressure relief devices. ii. Operational Limitations: *[Reference APC-98/0523(A1)]* A. There shall be no emissions of uncondensed VOCs from the condensers, hot wells, or accumulators of any vacuum producing system. B. The Company shall provide for the following during process unit turnarounds: 1. Depressurization venting of the process unit or vessel to a vapor	iii. Compliance Method *[Reference: APC-2005/0197]* A. Compliance with Emission Standard (A) shall be demonstrated by using the results of the quarterly LDAR monitoring program using the EPA Correlation Approach described in the 1995 Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017 dated November 1995. B. Compliance with Emission Standard (B) shall be based on monitoring of pumps and valves performed in accordance with 40 CFR 60 Subpart GGG for existing components and 40 CFR 63 Subpart CC for new components in light liquid and gaseous service. Monitoring shall be performed using a method approved by the Department. C. Compliance with Operational Limitations (A) and (B) shall be based on piping the uncondensed vapors to either a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process unit or vessel until its internal pressure is 136 kPa or less. *[Reference APC-*	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]* A. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service. *[Reference APC-98/0523(A1)]* B. Date of process unit or vessel turnarounds and the internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. *[Reference APC-98/0523(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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
recovery system, flare or firebox. 2. No emission of VOC from a process unit or vessel until its internal pressure is 136kiloPascals (kPa) (19.7 psia) or less.	*98/0523(A1)]* iv. Monitoring/Testing: *[Reference: APC-2005/0197]* None in addition to those listed in Condition 3 - Table 1.gb.1.ii. v. Recordkeeping *[Reference: APC-2005/0197]* The following records shall be maintained for 5 years in accordance with Condition 3(b): A. Results of the monitoring of pumps and valves required by Compliance Method (B). B. Date of process unit turnarounds and internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. C. VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid service and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.	
h. Emission Unit No. 26: Polymerization Unit (No emission points, i.e, This unit has only fugitive emissions that are covered under Section o under the hearing "Facility Wide Requirements")		
i. Emission Unit No. 27: Alkylation Unit (No emission points, i.e. This unit has only fugitive emissions that are covered under Section o under the heading "Facility Wide Requirements")		
j. Emission Unit No. 28: Sulfur Recovery Area (SRA); Claus Units I and II; Sulfur Pits and Shell Claus Offgas Treatment (SCOT) Units I and II. (Emission points 28-1 and 28-2)		
1. Conditions Applicable to Multiple Pollutants i. Operational Limitations *[Reference: APC-98/0264(A7)]*	ii. Compliance Method *[Reference: APC-98/0264(A7)]* A. Compliance with Operational Limitations (A), (B), (D), (H) and (I) shall be based upon	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
A. The SRA shall be operated so as to not exceed the following Equivalent Sulfur Plant Capacity (ESPC) expressed in long tons per day (LTPD), under the following operating scenarios: 1. When both Claus trains and SCOT units are in operation, the SRA shall not be operated at an ESPC greater than 822 LTPD on a 12 month rolling average. 2. When Claus train I (SRU I) and/or SCOT II is shutdown, Claus train II (SRU II) and SCOT I shall not operate at an ESPC greater than 499 LTPD on a 12 month rolling average. 3. When Claus train II (SRU II) and/or SCOT I is shutdown, Claus train I (SRU I) and SCOT II shall not operate at an ESPC greater than 510 LTPD on a 12 month rolling average. B. The combined heat input to SCOT I (28-S-203) and SCOT II (28-S-804) shall not exceed 865,000 mmBtu in any rolling twelve month period. C. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in the SCOT I and SCOT II units. The hydrogen sulfide content in the RFG combusted in the SCOT	recordkeeping. B. Compliance with Operational Limitation (C) shall be based upon a continuous monitoring system ("CMS"). C. Compliance with Operational Limitation (F) is defined as maintaining a negative pressure at the sulfur pits as measured on a minute average basis. D. [**RESERVED**] iii. Monitoring/Testing: *[Reference: APC-98/0264(A7)]* A. 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 monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the Quality assurance requirements of 40 CFR 60, Appendix "F" The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* B. The Owner/Operator shall continuously monitor the pressure at the sulfur pits. iv. Recordkeeping The following records shall be maintained in accordance with Condition 3(b): *[Reference: APC-98/0264(A7)]*	and the following: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 and 6.1.3.3 dated 12/11/00 and APC-90/0264 (A7)]* A. [**RESERVED**] B. A quarterly SO_2 CERMS report for the preceding quarter shall be submitted to the Department by January 30, April 30, July 30 and October 30 of each calendar year and shall include the information required by 40 CFR 60.7(c) and (d). C. The H2S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H2S as measured by the H2S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Owner/Operator's quarterly H2S CMS NSPS report for the facility shall satisfy this reporting requirement. D. The owner/operator shall notify the Department's Air Quality Management Section of shut downs and start ups with as much advanced notice as practicable. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
incinerators shall not exceed 0.10 grain/dscf on a 3 hour rolling average. D. Except as provided in Condition 3, Table 1Condition j 2 ii, tail gases from SRU I and/or SRU II shall be treated by the SCOT I Unit and/or the SCOT II Unit at all times. E. [**RESERVED**] F. The steam eductor system shall be operating properly at all times when molten sulfur is stored in the sulfur pits. G. [**RESERVED**] H. The Owner/Operator shall carry out an annual tune up of each SCOT incinerator burner. I. The sulfur pit vapors shall be routed to the Claus reactors at all times except during periods of low acid gas generation and other atypical operating conditions.	A. Daily sulfur production from each Claus Unit B. Logs of annual tune up performed on the SCOT incinerator burners C. The type of fuel combusted in SCOT I and SCOT II and the fuel usage, and HHV D. All periods when the pressure at the sulfur pits is not below atmospheric pressure. E. All periods when the sulfur pit vapors are diverted from the reactors into the SCOT incinerators and a description of the atypical operation causing the change.	
2. Particulate Matter: i. Emission Standards: *[Reference: APC-98/0264(A7) and 7 **DE Admin. Code** 1104 dated 2/1/81]* A. PM_{10} emissions shall not exceed 5.09 lb/hr in each SCOT stack and 22.3 TPY combined from both SCOT stacks. All TSP emissions shall be considered PM_{10}. B. [**RESERVED**]	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* Compliance with the Emission Standard (A) shall be based on stack testing conducted in accordance with Condition 3 - Table 1.j.2.iii.A. iii. Monitoring/Testing: *[Reference: APC-98/0264(A7)]* A. The Owner/Operator shall conduct a stack test at 5 year intervals while processing both	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi. Certification: That required by Condition 3(c)(3) of this

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. Stack testing shall be performed in accordance with Reference Method 5B in Appendix "A" of 40 CFR Part 60 and Reference Method 202 in Appendix "M" of 40 CFR Part 51, or other testing methodology proposed by the Owner/Operator and approved by the Department. iv. Recordkeeping: *[Reference: APC-98/0264(A7)]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.iv.	permit. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
3. Sulfur dioxide (SO_2): *[Reference: APC-98/0264 (A7)]* i. Emission Standard: SO_2 emissions shall not exceed 0.025 percent by volume (250 ppm) in each SCOT stack at zero percent oxygen on a dry basis on a twelve hour rolling average basis, except during startup or shutdown conditions, 122 lb/hour calculated on a 24 hour rolling average basis and 535 TPY combined from both SCOT stacks. During startup and shutdown conditions, the SO_2 emission limits listed in the	iii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* A. Compliance with the Emission Standard shall be determined by using continuous emissions rate monitoring systems (CERMS) to continuously monitor SO_2 emissions from the stacks of both SCOT I and SCOT II. B. Compliance with the Operational Limitation shall be demonstrated by the Monitoring/Testing requirement (B). iv. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-*	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 and the following: *[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 submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Operational Limitation shall apply in lieu of the 250 ppm and 122 lb/hour limits. ii. Operational Limitations: *[Reference: APC-98/0264(A7)]* **SULFUR RECOVERY AREA START UP AND SHUT DOWN SCENARIOS** The following short term emission limits listed below shall apply during start up and shut down scenarios in lieu of the short term emission limits (*i.e.*, 250 ppm and 122 lb/hr) identified in the Emission Standard: A. **SCENARIO 1: Planned SCOT I and/or SCOT II Shut Down:** When either SCOT unit shut down is planned, the stand by SCOT unit shall be brought to a state of readiness for operation before the operating SCOT unit is taken out of service. Within 2 hours after the operating SCOT unit is shutdown, all of the tailgases shall be treated in the standby SCOT unit. The maximum amount of SO_2 that shall be emitted during this 2-hour period shall not exceed 4.2 tons. B. **SCENARIO 2: Melting and Burnout After Planned Shut Down of SRU I and SRU II:** After SRU I or SRU II has been shut down, the off gases resulting from the residual sulfur melting and burnout shall be incinerated before exiting the	*98/0264(A7)]* A. The SO_2 CERMS on SCOT Units I and II shall conform to the Quality Assurance Procedures in Appendix "F" of 40 CFR Part 60. B. During start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be collected daily. v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* A. CERMS data showing SO_2 emissions in lbs/hour from the stacks of SCOT I and SCOT II including results of daily calibration, quarterly cylinder gas audits and annual relative accuracy test audits for the CERMS.	deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. *[Reference: 40 CFR 63, Subpart UUU, §63.1575(c)]* B. During planned start-up and shutdown periods of incineration, ambient air monitoring data for the affected period shall be submitted to the Department daily. At the Department's request, copies of available air monitoring data shall be furnished to the Air Quality Management Division. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
stack. The melting and burn-out procedure shall not exceed 7 days. The maximum amount of SO_2 resulting from this procedure shall not exceed 15 tons per day. C. **SCENARIO 3: Planned Start Up of SRU I and SRU II:** When SRU-I or SRU-II is returned to service the tail gas from the unit being returned to service shall be incinerated until the proper ratio of H_2S:SO_2 in the acid feed gas is attained. This ratio shall be established within 2 hours at which time the tail gas shall be fed to either SCOT Unit. During this start-up period the emissions of SO_2 shall not exceed 4 tons per start up event for either SRU. D. **SCENARIO 4: Burnout of SCOT Reactor During Shutdown of Either SCOT Unit:** After the planned shut down of either SCOT I or II, in order to save the catalyst it can be slowly burned free of sulfur. SO_2 emissions from this operation shall not exceed 9.6 tons, over a 6 day period. During start-up and shutdown periods of incineration, corrective action shall be taken if there is any indication that an exceedance of ambient air standards might take place.		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
4. Nitrogen Oxides (NO_X): i. Emission Standard: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. B. NOx emissions shall not exceed those achieved through an annual tune up performed by qualified personnel. *[Reference: 7 **DE Admin. Code** 1112 Section 3.3.2 dated 11/24/93]*	iii. Compliance Method: A. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, 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 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. B. Compliance with Emission Standard B shall be demonstrated by conducting an annual tune up of each unit by qualified personnel. *[Reference: 7 **DE Admin Code** 1130 Section 6.3.1 dated 12/11/00]* iv. Monitoring/Testing A. The Owner/Operator shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 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 and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	v. Recordkeeping: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3, Table 1.j. B. Maintain a log of all tune ups performed and documentation of qualifications of personnel responsible for conducting the tune up. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	
5. Carbon Monoxide (CO): i. Emission Standard: CO emissions shall not exceed 100 ppmvd in each SCOT stack and 90.4 TPY combined from both SCOT stacks. *[Reference: APC-98/0264(A7)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3 - Table 1.j.5.iii. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* iii. Monitoring/Testing The Owner/Operator shall conduct an annual stack test unless the Department approves less frequent testing. The Department reserves the right to require more frequent testing or require installation of CEMS. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
6. Volatile Organic Compounds (VOCs): i. Emission Standard: *[Reference: APC-98/0264(A6)]* VOC emissions (as methane) shall not exceed 0.17 lb/hr in each SCOT stack and 1.3 TPY combined from both SCOT stacks.	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]* Compliance with Emission Standards (A) and (B) shall be based on stack testing conducted in accordance with Condition 3 - Table 1.j.6.iii. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* A. The Owner/Operator shall conduct a stack test at 5 year intervals while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.iv.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi 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]*
7. Hydrogen Sulfide (H_2S) and Total Reduced Sulfur (TRS) Compounds: i. Emission Standard: *[Reference: APC-*	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]*	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
98/0264(A7)] H_2S emissions shall not exceed 1.7 lb/hr in each SCOT stack and 12.7 TPY combined from both SCOT stacks.	Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3 - Table 1.j.7.iii. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit APC-98/0264(A7)]* The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. Upon demonstrating compliance in accordance with this provision, the Owner/Operator shall not be required to conduct additional stack testing to demonstrate compliance with the Emission Standard. However, if the initial stack test performed in accordance with this Condition does not demonstrate compliance with the Emission Standard, then the Owner/Operator shall conduct additional tests on an annual basis, as applicable. The Owner/Operator may at any time petition the Department to discontinue such annual stack tests based upon compliant test results. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.iv.	and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
8. Sulfuric Acid (H_2SO_4): i. Emission Standard: H_2SO_4 emissions shall not exceed 1.6 lb/hr and 12.7 TPY combined from both SCOT stacks. *[Reference: APC-98/0264(A7)]*	ii. Compliance Method: Compliance with the Emission Standard shall be based on stack testing conducted in accordance with Condition 3 - Table 1.j.8.iii. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* iii. Monitoring/Testing: The initial performance test shall be conducted while processing both refinery acid gas and gasifier acid gas streams in the Claus units. The Owner/Operator shall conduct a Department approved stack test comprising of 3 runs of sufficient duration to evaluate compliance. Stack test results indicating below detection limits because of insufficient "catch" at the end of three 4 hour runs shall be accepted as proof of compliance. Upon demonstrating compliance in accordance with this provision, the Owner/Operator shall not be required to conduct additional stack testing to demonstrate compliance with the Emission Standard. However, if the initial stack test performed in accordance with this Condition does not demonstrate compliance with the Emission Standard, then the Owner/Operator shall conduct additional tests on an annual basis, as applicable. The Owner/Operator may at any time petition the Department to discontinue such annual stack tests based upon compliant test results. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-98/0264(A7)]* iv. Recordkeeping:	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.iv.	
9. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. *[Reference: 7 **DE Admin. Code** and 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00].* iii. Monitoring/Testing: 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. B. If required under paragraph A above, the Owner/Operator shall, in accordance with Subsection 1.5(c) of **7 DE Admin. Code** 1120, 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 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.j.1.v. *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi. 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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. . *[Reference: 7 **DE Admin. Code** 1120 dated 12/7/88 and 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00].* iv. Record keeping: *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00].* The following records shall be maintained in accordance with Condition 3(b): A. Observation records shall be maintained and made available to the Department upon request.	
k. Emission Unit No. 37: Steam Methane Reformer Hydrogen Plant, Heaters 37-H-1 A/B; (Emission points 37-1A and 37-1B)		
1. Conditions applicable to Multiple Pollutants: i. Operational Limitation: A. The heat input to 37-H-1 A/B shall not exceed 439 mmBtu/hr on a 365 day rolling average basis. *[Reference: APC-81/0965]* B. Only desulfurized refinery fuel gas (RFG) and/or natural gas may be fired in unit 37-H-1 A/B. C. The hydrogen sulfide (H_2S) content in the desulfurized RFG shall not exceed 162 ppmv(d) (0.10 gr/dscf) on a three (3) hour rolling average basis.	ii. Compliance Method: Compliance with the Operational Limitations shall be based on monitoring/testing and recordkeeping requirements. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall monitor the fuel usage by 37-H-1 A/B on an hourly basis. B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 37-H-1 A/B and analyze it to determine the daily heat input rate to this unit. C. The Owner/Operator shall monitor H_2S concentration in RFG continuously. The monitoring instrument shall be located downstream of all process steps that increase the concentration of H_2S in RFG	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 submit the H2S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H_2S CMS report shall include a report listing all rolling 3 hour periods during which the average concentration of H_2S as measured by the H_2S CMS exceeds 162 ppmv (dry) or 0.10 grain/dscf, quarterly audit results, data capture for the period and details of out of control periods. The data submitted with the Owner/Operator's quarterly H_2S CMS

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	prior to its being combusted in any fuel burning device. The H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the quality assurance requirements of 40 CFR 60, Appendix "F." The relative accuracy evaluation shall be conducted using method 11 of 40 CFR 60, Appendix "A." iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. Daily fuel HHV. B. All 3-hour rolling averages of H_2S content in RFG. C. CEMS data, calibration and audit results. D. The type of fuel combusted in 37-H-1 A/B and the fuel usage.	NSPS report for the facility shall satisfy this reporting requirement. vi. 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*
2. Particulate Matter: i. Emission Standard: PM emissions shall not exceed 0.3 lb/mmBtu heat input, maximum 2-hour average. *[Reference: 7 **DE Admin. Code** 1104 Section 2.1 dated 2/1/81]*	ii. Compliance Method: *[Reference :7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with the Emission Standard shall be based on the fuel type and quality. iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.k.1.iii. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.k.1.iv.	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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
3. Sulfur dioxide (SO_2): i. Operational Limitation: A. No sulfur compounds shall be emitted to the atmosphere during regeneration of the carbon drum absorption system. *[Reference: APC-81/0965-0 dated September 9, 1981]*	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Operational Limitation (A) shall be based on routing all emissions during regeneration of the carbon drum absorption system to the refinery flare recovery system. iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.k.1.iii. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.k.1.iv.	v. 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]* vi. 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]*
4. Nitrogen Oxides (NO_X): i. Emission Standard: A. NO_X emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. *[Reference: 7 **DE Admin. Code** 1112 Section 3.2.1 dated 11/24/93]* B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1 - Condition 3 - Table 1.j.	ii. Compliance Method: Compliance with the Emission Standard A and on the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j shall be determined by CEMS. *[Reference: 7 **DE Admin. Code** 1112 Section 3.2.4.1 dated 11/24/93]* iii. Monitoring/Testing: A. The CEMS for NO_X and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_X and diluent CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix "F". *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iv. Recordkeeping:	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 6.1.3.2 dated 12/11/00]*	
5. Volatile Organic Compounds (VOCs): i. Emission Standard: Volatile Organic Compound (VOC) emissions from the CO_2 and deaerator vents combined shall be reduced by not less than 81% from baseline levels (Figure 2 of application dated February 12, 2003) and shall not exceed a rate defined by 24 tons during the first year and 13 tons during the last year of the six year catalyst replacement cycle. *[Reference: 7 **DE Admin. Code** 1124, Section 50 dated 11/29/94 and APC-81/0965]*	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* Compliance with the Emission Standard shall be based on the monitoring/testing requirements. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and Permit: APC-81/0965]* The Owner/Operator shall conduct a stack test within 60 days of replacement of the LTS catalyst by the KATALCO 83-3X catalyst, at the end of the first year and at two year intervals thereafter. The tests shall be conducted simultaneously on the CO_2 and deaerator vents using the same Department approved test methodology as was used in determining baseline emissions testing in June 2002. The stack test results shall be used to quantify VOC emissions from the CO_2 and deaerator vents using the following equation: % VOC reduction = 100 [1 – [(CO_2 vent rate) (1 – fraction of CO_2 to Air Liquide) + (Deaerator vent rate)]/Baseline CH_3OH] where CO_2 and deaerator vent rates are stack test based VOC emission rates iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]*	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	The following records shall be maintained in accordance with Condition 3(b): A. [**RESERVED**] B. Annual quantities of CO_2 produced and exported to *Air Liquide.*	
6. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than twenty (20) percent opacity for an aggregate of more than three (3) minutes in any one (1) hour or more than fifteen (15) minutes in any twenty-four (24) hour period. *[Reference: 7 **DE Admin. Code**. 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3. dated 12/11/00]* iii. Monitoring/Testing: 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 7 **DE Admin. Code** 1120 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	v. 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]* vi. 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].*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 & 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].* iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3. dated 12/11/00]* A. Observation records shall be maintained and made available to the Department upon request.	
l. [RESERVED]		
m. Emission Unit No. 42: Continuous Catalyst Regenerator (CCR) Reformer, Reformer Charge Heater and Reboiler Heater (Emission points 42-1 and 42-2)		
1. Conditions applicable to Multiple Pollutants: i. Operational Limitations: *[Reference: APC-82/0073 and APC-82/0632]* A. The heat input to 42-H-1,2,3 shall not exceed 458 mmBtu/hr on a 365 day rolling average basis. B. The heat input to 42-H-7 shall not exceed 80 mmBtu/hr on a 365 day rolling average basis. C. Only desulfurized refinery fuel gas	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* Compliance with the operational limitations shall be based on monitoring/testing and recordkeeping requirements. iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall monitor the fuel usage by 42-H-1,2,3 and 42-H-7 on an hourly basis.	v. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 H_2S quarterly CMS report by January 31, April 30, July 31 and October 31 of each calendar year. The H_2S report shall

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
(RFG) and/or natural gas may be fired in 42-H-1,2,3 and 42-H-7. D. The hydrogen sulfide (H_2S) content in the desulfurized RFG shall not exceed 162 ppmvd (0.10 gr/dscf) on a 3 hour rolling average basis. E. Unit 42-H-1,2,3 may combust process vent gases from the reactor lift engager (42-D-11) and from the CCR lift engager (42-D-17).	B. The Owner/Operator shall obtain a daily sample of the fuel gas combusted in 42-H-1,2,3 and 42-H-7 and analyze it to determine the daily heat input rate to this unit. C. The Owner/Operator shall monitor H_2S concentrations in RFG continuously. The monitoring instrument 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 H_2S CEMS shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B" and comply with the quality assurance requirements of 40 CFR 60, Appendix "F." The relative accuracy evaluation shall be conducted using Method 11 of 40 CFR 60, Appendix "A." D. [**RESERVED**] iv. Recordkeeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* The following records shall be maintained in accordance with Condition 3(b): A. the type of fuel combusted in 42-H-1,2,3 and 42-H-7 and the fuel usage. B. All 3-hour rolling averages of H2S content in RFG. C. CEMS data calibration and audit results.	include a report listing all rolling 3-hour periods during which the average concentration of H_2S as measured by the H_2S CEMs exceeds 162 ppmv(d) (0.10 gr/dsef), quarterly results, data capture for the period and details out of control periods. The data submitted with the Owner/Operator's quarterly H_2S CMS NSPS report for the facility shall satisfy this reporting requirement. vi. 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]*.
2. Particulate Matter: i. Emission Standards for 42-H-1,2,3 and 42-H-7: PM emissions shall not exceed 0.3	ii. Compliance Method: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* A. Compliance with the Emission Standard shall be based on the fuel type and quality.	v. 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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
lb/mmBtu heat input, maximum 2-hour average. *[Reference: 7 **DE Admin. Code.** 110 4 Section 2.1 dated 2/1/83].*	iii. Monitoring/Testing: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.m.1.iii iv. Recordkeeping: Comply with "Conditions Applicable to multiple Pollutants" in Condition 3 - Table 1.m.iv.	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* 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].*
3. Nitrogen Oxides (NO_X): i. Emission Standard: For Unit 42-H-1,2,3: A. NO_X emissions shall not exceed 0.20 lb/mmBtu on a 24 hour rolling average basis. *[Reference: 7 **DE Admin. Code** 1112, Section 3.2.1 dated 11/24/93].* B. For 42-H-1,2,3 and 42-H-7: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. *[Reference: 7 **DE Admin. Code** 1112, Section 5 dated 11/24/93]* C. For 42-H-7: NO_X emissions shall not exceed those achieved by the installation of either low excess air and low NO_X burner technology or flue gas recirculation technology. *[Reference: 7 **DE Admin. Code** 1112, Section 3.3.1 dated 11/24/93]*	ii. Compliance Method: A. Compliance with the Emission Standards (A) and on the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" from 42-H-1,2,3 in Part 1, Condition 3 - Table 1.j (B) shall be determined by CEMS. *[Reference: 7 **DE Admin. Code** 1112 Section 3.2.4.1 dated 11/24/93].* B. Compliance with Emission Standard (C) shall be based on the operation and maintenance of the Low NO_X burners in accordance with the manufacturer's specifications. C. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j for 42-H-7 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 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*	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	dated 12/11/00] iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The CEMS for NO_X and the diluent must be certified by satisfying the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B". The QA/QC procedures for the NO_X and diluent CEMS shall be demonstrated in accordance with 40 CFR, Part 60, Appendix "F". B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1 dated 12/11/00]* iv. Recordkeeping: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. *[Reference: 7 **DE Admin Code** 1130 Section 6.1.3.2 dated 12/11/00]*	
4. Visible Emissions: The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference 7 **DE Admin. Code** 1114, Section 2.1, dated 7/17/84].*	ii. Compliance Method: Compliance shall be demonstrated by proper operation and maintenance of the emission units, monitoring and testing requirements, and record keeping. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2 dated 12/11/00]* iii. Monitoring/Testing: A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation.	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 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 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].* iv. Record keeping: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Observation records shall be maintained and made available to the Department upon request.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
5. Hazardous air pollutants: *[Reference: APC-82/0073]* i. Emission standards: A. The wet gas scrubber shall reduce uncontrolled emissions of HCl by 97% by weight at all times. B. Total HCl emissions from the CCR Reformer unit shall not exceed 1.6 tons on a 12-month rolling basis. C. The wet gas scrubber shall reduce uncontrolled emissions of chlorine by 95% by weight at all times. D. Total chlorine emissions shall not exceed 0.80 tons on a 12-month rolling basis. ii. Operational limitations: A. The Owner/Operator shall operate the wet gas scrubber at all times according to the procedures of the operation, maintenance and monitoring (OMM) plan, which shall include the information specified in 40 CFR Part 63.1574(f). B. The minimum daily average pH of the scrubbing liquid exiting the scrubber shall be 6.56. C. The minimum daily average liquid-to-gas ratio shall be 0.12. D. During periods of startup, shutdown, and malfunction, the Owner/Operator shall operate the CCR Reformer unit and wet gas scrubber in accordance	iii. Compliance method: *[Reference: APC-82/0073]* Compliance with the Emission Standards and Operational Limitations shall be based on Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: *[Reference: APC-82/0073]* A. To demonstrate compliance with the Operational Limitations, the Owner/Operator shall operate a continuous monitoring system to measure the following parameters, in accordance with the requirements of 40 CFR Part 63, Subpart UUU, Table 41. 1. The pH of the scrubbing liquid exiting the scrubber; 2. The gas flow rate to the scrubber; 3. The total scrubbing liquid flow rate; 4. The differential pressure across the scrubber. B. To demonstrate compliance with Operational Limitations (B) and (C) during coke burn-off and catalyst rejuvenation, the Owner/Operator shall: 1. Collect the hourly and daily average pH monitoring data according to §63.1572; 2. Maintain the daily average pH above the operating limit established during the performance test; 3. Collect the hourly average gas flow rate and scrubbing liquid flow rate monitoring data;	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 and the following. *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00 and APC-82/0073]* A. The Owner/Operator shall submit semiannual reports by January 31 and July 31 of each calendar year for the preceding semiannual period in accordance with the requirements of §63.1575(c). The report must include each instance in which an emission limit, operating standard or work practice standard is not met, or if no deviations occurred the report must contain a statement that there were no deviations during the reporting period and that no continuous monitoring system was inoperative, out of control, repaired or adjusted. An electronic copy of the report shall be sent to the Department's engineer for the refinery. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
with a written startup, shutdown, malfunction plan (SSMP) pursuant to 40 CFR Part 63.6(e)(3).	4. Determine and record the hourly and daily average liquid-to-gas ratio; 5. Maintain the daily average liquid-to-gas ratio above the limit established during the performance test; and 6. Comply with the OMM plan. v. Recordkeeping: *[Reference: APC-82/0073]* The following records shall be maintained in accordance with Condition 3(b): A. A copy of each notification and report submitted pursuant to or supporting any initial Notification of Compliance Status pursuant to §63.10(b)(2)(xiv); B. Records in §63.6(e)(1)(iii) through (v) related to startup, shutdown and malfunction; and C. Records of performance tests required in §63.10(b)(2)(vii).	
n. Emission Unit No. 45: Refinery Utilities, North & South Flares and Gas Recovery System; Spent Caustic Stripper (Emission points 45-1 and 45-2):		
1. Flares i. Emission Standard: Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. ii. Operational Limitations: A. [**RESERVED**] B. The flare shall be operated at all	ii. Compliance Method A. Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j for NOx emissions associated with the combustion of pilot gas shall be based on published NOx emission factors for such source or category of sources or any other method proposed by the Owner/Operator and approved by the Department.	v. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
times when emissions may be vented to it. *[Reference: 40 CFR 60, Subpart A, §60.18(e), dated 7/1/06]* C. At least one flare recovery compressor shall be operational at all times, except during periods of malfunction as defined in Condition 2(e)(5). D. The flares shall be designed for and operated with no visible emissions as determined by methods specified in paragraph (f) of 40 CFR 60.18 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. *[Reference Regulation 40 CFR 60.18(c)(1) dated 7/1/06].* E. Except as provided in D above, operation of the flare shall be smokeless. *[Reference: Permit APC-81/0830]* F. The flare shall be operated with a flame present at all times. *[Reference: 40 CFR 60.18(c)(2), dated 7/1/06]* G. The flare flame detection device shall be in proper operation whenever the flare is in operation. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 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 associated with the combustion of process gas shall be estimated in accordance with best engineering judgment or any other method proposed by the Owner/Operator and approved by the Department. C. Compliance with the Operational Limitations shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this condition. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. The Owner/Operator shall continuously monitor the gas flow to the flares (i.e., the gas not recovered by the recovery compressors). B. A gas sample shall be collected from the flare header weekly and analyzed by a gas chromatograph. C. Delaware reportable quantities of pollutants in the flare emissions shall be calculated based on the flow and concentrations measured from the weekly samples unless more representative process operating data can be used to provide concentrations that are different from those obtained from the daily analysis. D. Visible emissions from the flare shall be	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	monitored as follows: 1. The Owner/Operator shall monitor the opacity from both flare stacks at all times using a video camera. The monitor for the camera shall be in plain sight in the control room at all times. 2. The Owner/Operator shall conduct daily qualitative observations of the flare using Method 22 to evaluate the presence or absence of smoke and/or visible air contaminants during a continuous fifteen (15) minute period while the flare is in operation. 3. If visible emissions are detected during any daily qualitative survey of visible emissions or is observed at any other time, the Owner/Operator shall take corrective action and/or conduct a visible emission test using 40 CFR 60, Appendix A, Reference Method 22, dated 7/11/06. The observation period is 2 hours and shall be done according to Method 22. *[Reference: 40 CFR 60, Subpart A, §60.18(f)(1), dated 7/1/06]* 4. The presence of a flare pilot flame shall be monitored at all times using a thermocouple or any other equivalent device to detect the presence of a flame. *[Reference: 7* ***DE Admin. Code*** *1130 Section 6.1.3.1.2 dated 12/11/00 and 40 CFR 60.18(f)(2), dated*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	7/1/06] E. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. 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. Date, time and duration of the flaring event. B. Quantity of material flared. C. Calculations showing the amount of reportable quantity releases. D. Results of weekly samples. E. Daily visible emission record. F. Method 22 observations. G. Records indicating the presence of a flame during flare operation. H. Periods of time when the camera monitoring equipment is not operational. I. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j.	
2. Spent Caustic Stripper: **State Enforceable Only** i. Emissions Standards: *[Reference: APC-95/0381]* A. There shall be no direct air contaminant emissions to the atmosphere from this unit. B. The sulfide concentration in the spent caustic shall not exceed 600 ppm (wt)	iii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Emission Standard (A) is based on routing the stripper overhead gases as feed to the refinery SRA only. B. Compliance with Emission Standard (B) is based on the monitoring/testing requirements. C. Compliance with the Operational Limitation	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*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
and a rolling average of 200 ppm (wt) calculated on the last 30 days of actual operation. For the purpose of this condition, a day is defined as a calendar day. ii. Operational Limitation: A. No spent caustic streams from any of the following units shall enter any part of the WWTP until they are treated by the spent caustic stripper in accordance with Emission Standard B. *[Reference: APC-95/0381]* 1. Fluid Catalytic Cracking Unit 2. Crude Unit 3. Alkylation Plant 4. Polymerization Plant 5. Ether Unit	is based on the Recordkeeping requirements. iv. Monitoring/Testing: The treated spent caustic shall be sampled and tested for sulfide concentration daily. Testing shall be conducted utilizing the CHEMetrics VACUettes sulfide test kit. An alternative test method may be substituted if approved by the Department. *[Reference: APC-95/0381]* v. Recordkeeping: The following records shall be maintained in accordance with Condition 3(b): *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00 and APC-95/0381]* A. Log of daily sampling results B. Log indicating all periods when the spent caustic discharge to the WWTP exceeds Emission Standard (B).	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
oa. Facility Wide Requirement for Fugitive VOC Emissions, i.e., Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries (40 CFR 60, Subpart GGG); National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (40 CFR Part 63 Subpart CC) Standards of Performance for Equipment Leaks of VOC in SOCMI (40 CFR 60, Subpart VV), and Regulation No. 24, Section 29, Leaks from Petroleum Refinery Equipment		
1. **Pumps in Light Liquids Service.** i. Operational Standards A. Each pump in light liquid service shall be monitored by the methods and procedures in accordance with (iii)(A) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, subpart VV, §60.482-2(a) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98].*	ii. Compliance Methods Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference 7 **DE Admin. Code** 1130 Section 6.1.3 dated 11/15/93]*	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. [**RESERVED**] B. Other reporting requirements are

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
B. Leak Repair 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 8 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(c)(1) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* 2. A first attempt at repair shall be made no later than5 calendar days after each leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(c)(2) dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* C. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (A) of this section, provided the following requirements are met: 1. Each dual mechanical seal system is: a. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or b. Equipment with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of Section 9 of this unit; or,	iii. Monitoring/Testing A. Periodic Monitoring 1. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00, except as given in paragraphs (i)(C), (i)(D), and (i)(E) of this section. 2. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60,Subpart VV, §60.482-2(a), dated 7/1/00]* B. Detection of Leaks 1. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected for existing pumps as defined in 40 CFR 63.640. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected for new pumps as defined in 40 CFR 63.640. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2 dated 7/1/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* 2. If there are indications of liquids dripping from the pump seal, a leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60,Subpart VV, §60.482-2(b), dated 7/1/00]* iv. Recordkeeping *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	covered under Section 13 of this unit. vi. Compliance 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
c. Equipped with a system that purges the barrier fluid into process stream with zero VOC emissions to the atmosphere. 2. The barrier fluid system is in heavy liquid service or is not in VOC service. 3. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. 4. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals. 5. a. Each sensor as described in paragraph (3) of this section is checked daily or is equipped with an audible alarm, and b. The Owner/Operator determines, based on design considerations and operation experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. 6. a. If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in paragraph	The following records shall be maintained in accordance with Condition 3(b): VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
(C)(5)(b), a leak is detected. b. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 9 of this unit. c. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(d), dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].* D. Any pump that is designed for no detectable emission, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (i)(A), (i)(B), (i)(C), and (iii) of this section if the pump: 1. Has no externally actuated shaft penetrating the pump housing. 2. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00, and 3. Is tested for compliance with		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
paragraph (D)(2) initially upon designation, annually, and at other times required by the Department. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(e) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].* E. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system, it is exempt from this section. *[Reference: 7 **DE Admin. Code** 112, Section29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-2(f) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].* F. Any pump that is designated as an unsafe-to-monitor pump is exempt from the Monitoring/Testing requirements of this section if: 1. The Owner/Operator demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to immediate danger as a consequence if complying with part (iii)(A) of this section; and 2. The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
applicable, and repair of the equipment according to the procedures in part (iii)(B) of this section if a leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94; 40 CFR 60 Subpart VV §60.482-2(g) dated 12/14/2000 and §63.648(a)(1) dated 8/18/98].*		
2. Compressors. i. Operational Standards A. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR 60.482-91(c) and Operational Standards (E) and (F) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(a) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98]* B. Each compressor seal system as required in paragraph (A) shall be: 1. Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or 2. Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of Section 9 of this unit; or 3. Equipped with a system that purges the barrier fluid into a process	ii. Compliance Method Compliance with the Operational Standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing A. Each barrier fluid system as described in paragraph (i)(A) of this unit shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(d), dated 7/1/00]* B. 1. Each sensor as required in paragraph (A) shall be checked daily or shall be equipped with an audible alarm. 2. The Owner/Operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. *[Reference: Regulation No.2 4, Section28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(e), dated 7/1/00]*	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. [**RESERVED**] B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
stream with zero VOC emissions to the atmosphere. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(b) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98]* C. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. *[Reference: 7 **DE Admin. Code** 1124, Section29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(c) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98]* D. 1. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 8 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(g) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98].* E. A compressor is exempt from the requirements of Operational Standards (A) and (B) of this section, if it is equipped with a closed vent system to capture and transport any leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of Section 9 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(h) dated 12/14/2000 and 40 CFR*	C. If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under paragraph (B)(2), a leak is detected. *[Reference: : 7 **DE Admin. Code** 1124, Section28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(f), dated 7/1/00]* iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
63.648(a)(1) dated 8/18/98] F. Any compressor that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of this section if the compressor: 1. Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00. 2. Is tested for compliance with Operational Standard (F)(1) initially upon designation, annually, and at other times requested by the Department. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-3(i) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].* G. Any existing reciprocating compressor in a process unit which becomes an affected facility is exempt from this section provided the Owner/Operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of this section. *[Reference: 40 CFR 60, Subpart VV,*		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
§60.482-3(j) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98]. H. Compressors in hydrogen service are exempt from the requirements of this section if the Owner/Operator demonstrates that a compressor is in hydrogen service. *[Reference: 40 CFR 60, Subpart GGG, §60.593(b)(1) dated 7/1/2000].* I. Each compressor is presumed to be in hydrogen service unless the Owner/Operator demonstrates that it is not in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen concentration can be reasonably expected to exceed 50% by volume. *[Reference: 40 CFR 60.593(b)(1) & (2) dated 10/17/2000 and 40 CFR 63.648(g) dated 8/18/98].*		
3. **Pressure Relief Devices in Gas/vapor Service.** i. Operational Standards A. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm, above background, as determined by the methods specified in 40 CFR 60, Subpart VV, §60.485(c), dated 7/1/00. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(a) dated 7/1/00*	ii. Compliance Method *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 11/15/93]* Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. iii. Monitoring/Testing A. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
and 40 CFR 63.648(a)(1) dated 8/18/98]. B. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in Section 9 of this unit is exempted from the requirements of paragraphs (i)(A) and (iii) of this section *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(c) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98.]* C. 1. Any pressure relief device that equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements in (i)(C)(2) below. 2. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9. *[Reference 40 CFR 60, Subpart VV, §60.482-4(d) dated 12/14/2000].*	pressure release, except as provided in Section 8 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(1), dated 7/1/00]* B. No later than 5 calendar days after a pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60, Subpart VV, §60.485©, dated 7/1/00. *[Reference: 7 **DE Admin. Code** 1124, Section 28, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-4(b)(2), dated 7/1/00]* iv. Recordkeeping: None in addition to the requirements of Section 12 of this unit.	
4. **Sampling Connection Systems.** i. Operational Standards. A. Each sampling connection system	ii. Compliance Method *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 11/15/93]* Compliance with the operational standards of	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in the provisions for determining an equivalent means of limitation. Gasses displaced during filling of the sample container are not required to be collected or captured. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(a) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98.]* B. Each closed-purge, closed-loop, or closed vent system as required in paragraph (A) of this section shall comply with the following requirements: 1. Return the purged process fluid directly to the process line; or 2. Collect and recycle the purged process fluid to a process; or 3. Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of Section 9 of this unit. 4. Collect, store, and transport the purged process fluid to any of the following systems: 5. A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operate in	this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing None. iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
compliance with the provision of 40 CFR part 63, subpart G, application to Group 1 wastewater streams; b. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or 3. A facility permitted, licensed, or registered by the State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261. *[Reference: 7 **DE Admin. Code** 1124, Section 28,dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(b) dated 7/1/00 and 40 CFR 63.468(a)(1) dated 8/18/98].* 4. In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (A) and (B) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-5(c) dated 12/14/2000 and 40 CFR 63.648(a)(1) dated 8/18/98].*		
5. **Open-ended Valves or Lines.** i. Operational Standards A. 1. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.	ii. Compliance Method: Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE***	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow throughout he open-ended valve or line. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* B. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second value is closed. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* C. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (A) at all other times. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* D. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (i)(A), (B), and (C) of this	***Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: None iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. Compliance 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
section. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* E. Open-ended valves or lines containing materials which would automatically polymerize or would present an explosion, serious over pressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (i)(A) through (C) of this section are exempt from the requirements of paragraphs (i)(A) through (C) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated* 8/18/98]		
6. **Valves in Gas/vapor Service and in Light Liquid Service.** i. Operational Standards A. Each valve shall be monitored as given in section (iii) of this unit and shall comply with Operational Standards (B) through (D), except as provided in Operational Standards (E) and (F) and Sections 10 and 11 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* B. 1. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00].* iii. Monitoring/Testing A. Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60 Subpart VV, §60.485(b), dated 7/1/00. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00]* B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected for	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
calendar days after the leak is detected, except as provided in Section 8 of this unit. 2. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* 3. First attempts at repair include, but are not limited to, the following best practices where practicable: 1. Tightening of bonnet bolts; 2. Replacement of bonnet bolts; 3. Tightening of packing gland nuts; 4. Injection of lubricant into lubricated packing. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* D. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Operational Standard (A) of this section if the valve: 1. Has no external actuating mechanism in contact with the process fluid, 2. Is operated with emissions less than 500 ppm above background	existing valves as defined in 40 CFR 63.640. If an instrument reading of 500 ppm or greater is measured, a leak is detected for new valves as defined in 40 CFR 63.640. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94, 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648]* C. 1. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. 2. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00]* iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
as determined by the method specified in 40 CFR 60, Subpart VV, § 60.485(c), dated 7/1/00, and 3. Is tested for compliance with paragraph (D)(2) initially upon designation, annually, and at other times requested by the Department. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* E. Any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of Operational Standard (A) if: 1. The Owner/Operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (A), and 2. The Owner/Operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* F. Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of Operational		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Standard (A) if: 1. The Owner/Operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. 2. The Owner/Operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and 3. The Owner/Operator follows a written plan that requires monitoring of the valve at least once per calendar year. *[Reference: 7 **DE Admin. Code** 1124, Section 29, dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-6(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]*		
7. **Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges Connectors.** i. Operational Standards A. If evidence of a potential leak is found by visual, audible, olfactory, or other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the Owner/Operator shall follow either one of the monitoring requirements in part (iii)(A) of this section. *[Reference: 7 **DE**	ii. Compliance Method Compliance with operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing A. 1. The Owner/Operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and comply with the requirements of paragraphs (B) through (D) below *[Reference: 7 **DE Admin. Code** 1124, Section 29*	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 and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
Admin. Code *1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a) dated 12/14/2000].*	*dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(1), dated 12/14/00].* 2. The Owner/Operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. *[Reference: 7* ***DE Admin. Code*** *1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00].* B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. *[Reference: 7* ***DE Admin. Code*** *1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00].* C. 1. When a leak is detected it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9. 2. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. *[Reference: 7* ***DE Admin. Code*** *1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* iv. First attempts at repair include, but are not limited to the best practices described under Section 6(i)(C) of this unit. *[Reference: 7* ***DE Admin. Code*** *1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* v. Recordkeeping None in addition to the requirement of Section 12 of this unit.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
8. **Delay of Repair** i. Operational Standard A. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-9(a), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* B. Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* C. Delay of repair for valves will be allowed if: 1. The Owner/Operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and 2. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 9 of this unit. *[Reference: 7 **DE Admin. Code**	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing None iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]. D. Delay of repair for pumps will be allowed if: 1. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and 2. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-8(a)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* E. Delay or repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-9(e)(2), dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].*		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
9. **Closed Vent Systems and Control Devices.** i. Operational Standards A. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv, whichever is less stringent. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(b) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* B. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater or to an exit concentration of 20 ppmv dry corrected to 3% oxygen, whichever is less stringent, or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* C. Flares used to comply with this subpart shall comply with the requirements of 40 CFR 60, Subpart A, §60.18, dated 7/1/00 and Unit 1 of this Table. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(d) dated 12/14/00*	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing A. Control devices used to comply with the provisions of this unit shall be monitored to ensure that they are operated and maintained in conformance with their designs. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(e) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* B. Except as provided in paragraphs (C) through (E) below, each closed vent system shall be inspected according to the procedures: 1. If the vapor collection system or closed vent system is constructed of hard-piping, the Owner/Operator shall comply with the requirements specified in paragraphs (B)(1)(a) and (B)(1)(b) of this section: i. Conduct an initial inspection according to the procedures 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00; and ii. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. RESERVED B. Other reporting requirements are covered under Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
and 40 CFR 63.648(a)(1) dated 8/18/98]. D. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (E) of this section. 1. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. 2. Repair shall be completed no later than 15 calendar days after the leak is detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(g) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* E. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the Owner/Operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(h) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].* F. Closed vent systems and control	2. If the vapor collection system or clod vent system is constructed of ductwork, the Owner/Operator shall: i. Conduct an initial inspection according to the procedures in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00); and ii. Conduct annual inspections according to the procedures in Sec. 60.485(b). *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(f), dated 12/14/00]* C. If a vapor collection system or clod vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482108(i), dated 12/14/00].* D. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a) and (B)(2) of this section if they comply with the requirements specified in paragraphs (D)(1)(a) and (D)(2) of this section: 1. The Owner/Operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (B)(1)(a) or (B)(2) of this	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(m) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98].*	section; and 2. The Owner/Operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(j) dated 12/14/00].* E. Any parts of the closed vent system that are designated as difficult to inspect are exempt from the inspection requirements of paragraphs (B)(1)(a) or (B)(2) of this section if they comply with the requirements specified in paragraphs (E)(1) through (E)(3) of this section: 1. The Owner/Operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and 2. The owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and 3. The Owner/Operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(k) dated 12/14/00].*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	iv. Recordkeeping In addition to the records required by Section 12 of this unit, the Owner/Operator shall record the following and keep it for at least five years. A. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. B. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. C. For each inspection conducted in accordance with §60.485(b) dated 10/17/2000 during which a leak is detected, a record of the information specified in 40 CFR 60, Subpart VV, §60.486(c), dated 12/14/00. D. For each inspection during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. E. For each visual inspection conducted in accordance with paragraph (B)(1)(b) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.482-10(l) dated 12/14/00 and 40 CFR 63.648(a)(l) dated 8/18/98].*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
10. **Alternative Standards for Valves – Allowable Percentage of Valves Leaking.** i. Operational Standards A. The Owner/Operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(a) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* B. Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(d) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]*	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing A. A performance test as specified in paragraph (C) of this section shall be conducted initially upon designation, annually, and at other times requested by the Department. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(2) dated 12/14/00]* B. If a valve leak is detected, it shall be repaired in accordance with Section 6(B) and (C) of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(b)(3) dated 12/14/00].* C. Performance tests shall be conducted in the following manner: 1. All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR 60, Subpart VV, §60.485(b), dated 7/1/00. 2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. 3. The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. The Owner/Operator must notify the Department that the Owner/Operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard as specified in section 13(c)(D). *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1 dated 12/14/00]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	service within the affected facility. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-1(c) dated 12/14/00 and 40 CFR 63.648(a)(1) dated 8/18/98]* iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	
11. **Alternative Standards for Valves-Skip Period Leak Detection and Repair.** i. The Owner/Operator may elect to comply with one of the alternative monitoring frequencies specified in paragraphs (iii)(B) and (iii)(C) of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00].*	ii. Compliance Method Compliance with the operational standards of this condition shall be demonstrated in accordance with the monitoring/testing and recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing A. A Owner/Operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in Section 6 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b) dated 12/14/00].* B. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(b)(2), dated 12/14/00].*	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[Reference :7 **DE Admin. Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* A. A Owner/Operator must notify the Department before implementing one of the alternative work practices as specified in section 13(v)(D) of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/94 and 40 CFR 60, Subpart VV, §60.483-2(a) dated 12/14/00].* B. Other reporting requirements as specified in Section 13 of this unit. vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	C. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(3), dated 12/14/00]* D. If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in Section 6 of this unit but can again elect to use this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(4), dated 12/14/00]* E. The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(5), dated 12/14/00]* iv. Recordkeeping A. The Owner/Operator must keep a record of the percent of valves found leaking during each leak detection period. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.483-2(b)(6), dated 12/14/00]* B. The Owner/Operator shall keep all the other records listed in Section 12 of this unit.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
12. **Recordkeeping requirements:** i. The Owner/Operator shall comply with the recordkeeping requirements of this section. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(a), dated 12/14/00]*	ii. Compliance Method Compliance with this section will be accomplished by maintaining the records required by section (iv). iii. Monitoring/Testing None in addition to the requirements of the other sections of this unit. iv. Recordkeeping A. When each leak is detected, as specified in Sections 1, 2, 6, 7, and 11 of this unit, the following requirements apply: 1. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. 2. The identification on a valve may be removed after it has been monitored for 2 successive months and no leak has been detected during those 2 months. 3. The identification on equipment except for a valve, may be removed after it has been repaired. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(b), dated 12/14/00]* B. When each leak is detected, as specified in Sections 1, 2, 6, 7 and 11 of this unit, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1. The instrument and operator identification numbers and the	v. 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]* vi. Compliance 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	equipment identification number. 2. The date the leak was detected and the dates of each attempt to repair the leak. 3. Repair methods applied in each attempt to repair the leak. 4. "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60, Subpart VV, §60.485(a), dated 7/1/00 after each repair attempt is equal to or greater than 10,000 ppm. 5. "Repair delayed" and the reasons for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. 6. The signature of the Owner/Operator (or designate) whose decision it was that repair could not be effected without a process shutdown. 7. The expected date of successful repair of the leak if a leak is not repaired within 15 days. 8. Dates of process unit shutdowns that occur while the equipment is unrepaired. 9. The date of successful repair of the leak. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(c), dated 12/14/00]* C. The following information pertaining to the design requirements for closed vent systems and control devices described in Section 9 of this unit shall be recorded and kept in a readily accessible location: 1. Detailed schematics, design specifications, and piping and	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	instrumentation diagrams. 2. The dates and description of any changes in the design specifications. 3. A description of the parameter or parameters monitored, as required in 40 CFR 60, Subpart VV, §60.482-10(e), dated 12/14/00, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. 4. Periods when the closed vent systems and control devices required in Sections 1-4 of this unit are not operated as designed, including periods when a flare pilot light does not have a flame. 5. Dates of startups and shutdowns of the closed vent systems and control devices required in Sections 1-4 of this unit. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(d), dated 12/14/00]* D. The following information pertaining to all equipment subject to the requirements in Sections 1-9 of this unit shall be recorded in a log that is kept in a readily accessible location: 1. A list of identification numbers for equipment subject to the requirements of this subpart. 2. a. A list of identification numbers for equipment that are designed for no detectable emissions under the	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	provisions of Sections 1(i)(D), 2(i)(F) and 6(i)(D) of this unit. b. The designation of equipment as subject to the requirements of Sections 1(i)(D), 2(i)(F) and 6(i)(D) of this unit shall be signed. 3. A list of equipment identification numbers for pressure relief devices required to comply with Section 3 of this unit. 4. a. The dates of each compliance test as required in Section 1(i)(D), 2(i)(F), 3, and 6(i)(D) of this unit. b. The background level measured during each compliance test. c. The maximum instrument reading measured at the equipment during each compliance test. 5. A list of identification numbers for equipment in vacuum service. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(e), dated 12/14/00]* E. The following information pertaining to all valves subject to the requirements of Sections 6(i)(E) and (F) of this unit and to all pumps subject to Section 1(i)(F) of this unit shall be recorded in a log that is kept in a readily accessible location: 1. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve and pump stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve and pump.	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	2. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(f), dated 12/14/00]* F. The following information shall be recorded for valves complying with Section 1 of this unit: 1. A schedule of monitoring. 2. The percent of valves found leaking during each monitoring period. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(g), dated 12/14/00]* G. The following information shall be recorded in a log that is kept in a readily accessible location: 1. Design criterion required in Sections 1(i)(C)(5) and 2(iii)(B)(2) of this unit and explanation of the design criterion; and 2. Any changes to this criterion and the reasons for the changes. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(h), dated 12/14/00]* H. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. *[Reference: 7 **DE Admin. Code** 1124, Section 29 dated 11/29/04 and 40 CFR 60, Subpart VV, §60.486(j), dated 7/1/00].*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
13. **Reporting requirements:** i. Standards: The Owner/Operator shall submit reports as given in section (v).	ii. Compliance Method Compliance with this condition shall be demonstrated in accordance with the reporting requirements of this section. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3 dated 11/15/93]* iii. Monitoring/Testing None. iv. Recordkeeping None in addition to the requirements of Section 12 of this unit.	v. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit and the following: *[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 submit semiannual reports to the Department on February 1 and July 1 of each year. [Reference: 40 CFR 60, Subpart VV, §60.487(a), dated 12/14/00]. B. The initial semiannual report to the following Department shall include the following information: 1. Process unit identification. 2. Number of valves subject to the requirements of Section 6 of this unit, excluding those valves designated for no detectable emissions. 3. Number of pumps subject to the requirements of Section 1 of this unit, excluding those pumps designated for no detectable emissions and those pumps complying with Section 2(i)(E) of this unit. 4. Number of compressors subject to the requirements of Section 2 of this unit, excluding those compressors designated for no detectable emissions and those compressors complying with Section 2(i)(G). *[Reference: 40 CFR 60, Subpart VV, §60.487(n), dated 12/14/00].* C. All semiannual reports to the Department shall include the following information:

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		1. Process unit identification. 2. For each month during the semiannual reporting period, a. Number of valves for which leaks were detected as described in Section 6(iii)(B) or Section 11 of this unit. b. Number of valves for which leaks were not repaired as required in Section 6(i)(B)(1) of this unit. c. Number of pumps for which leaks were detected as described in Section 1(iii)(B)(1) and 1(i)(C)(6)(a) of this unit. d. Number of pumps for which leaks were not repaired as required in Section 1(i)(B)(1) and 1(i)(C)(6)(b) of this unit. e. Number of compressors for which leaks were detected as described in Section 2(iii)(C) of this unit. f. Number of compressors for which leaks were repaired as required in Section 2(i)(D)(1) of this unit; and g. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. 3. Dates of process unit shutdowns which occurred within the semiannual reporting period. 4. Revisions to items reported according to paragraph (2) if changes have occurred since the initial report or subsequent

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
		revisions to the initial report. *[Reference: 40 CFR 60, Subpart VV, §60.487(c), dated 12/14/00].* D. An owner or operator electing to comply with the provisions of Sections 10 and 11 of unit shall notify the Department of the alternative standard selected 90 days before implementing either of the provisions. *[Reference: 40 CFR 60, Subpart VV, §60.487(d), dated 12/14/00].* vi. Compliance 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]*
ob. Facility Wide Requirements for all emission units listed in Condition 1 of this permit and any insignificant activity listed in 7 DE Admin. Code 1130, Appendix A operated by the Owner/Operator or included in the permit application.		
1. **Visible Emissions Standard:** i. The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, 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. *[Reference: 7 **DE Admin. Code** 1114 Section 2.1 dated 7/17/84]*	ii. Compliance Method: Except for units where compliance with the visible emission standard is required to be demonstrated by an alternative monitoring plan. Compliance with the emission standard of this condition shall be demonstrated in accordance with 7 **DE Admin. Code** 1120 Section 1.5 and the recordkeeping requirements of this condition. *[Reference: 7 **DE Admin. Code** 1114, Section 4.1 dated 7/17/84 and 7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: A. In accordance with 7 **DE Admin. Code** 1120 Section 1.5, conduct visual observations at	v. 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]* 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
	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 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]* B. 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 by conducting a visible observation in accordance with Paragraph (A) above. 2. If no visible emissions are observed or are within permitted limits, no further action is required. *[Reference: R7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iv. Record Keeping: The following records shall be maintained in accordance with Condition 3(b): Records of qualitative emission observations and Reference method 9 evaluations when emissions were observed. *[Reference: R7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]*	

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
2. **Odor – State Enforceable Only** i. The Owner/Operator shall not cause or allow the emission of an odorous air contaminant such as to cause a condition of air pollution. *[Reference: 7 **DE Admin. Code** 1119, Section 2.1 dated 2/1/81]*	ii. 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. *[Reference: R7 **DE Admin. Code** 1130, Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: Includes but is not limited to scentometer tests, air quality monitoring, and affidavits from affected citizens and investigators. *[Reference: 7 **DE Admin. Code** 1119, Section 2.1 dated 2/1/81]* iv. Recordkeeping: Records of all monitoring/testing shall be maintained in accordance with Condition 3(b). *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]*	v. 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]* vi. 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]*
3. **Petroleum Refinery Sources** i. Operational Limitations: With the exception of segregated storm water runoff drain systems and non-contact cooling water systems, the Owner/Operator shall comply with the following standards for process unit turnarounds: A. Process Unit Turnarounds: The owner or operator of a petroleum refinery shall provide for the following during process unit turnaround: 1. Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox. 2. No emission of VOC from a process unit or vessel until its	ii. Compliance Method: *[Reference: 7 **DE Admin. Code** 1124 Section 28(c) and (d) dated 11/11/93 and 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]* A. Compliance with Operational Limitation (A), i.e., during process unit turnarounds, shall be based upon the Owner/Operator conducting depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Owner/Operator shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. B. Compliance with Operational Limitation (B) shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
internal pressure is 136 kiloPascals (kPa)(19.7 pounds per square inch atmospheric [psia]) or less. *[Reference: 7 **DE Admin. Code** 1124 Section 28(c) dated 11/11/93].*	gas. iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii). iv. Record Keeping: The following records shall be maintained in accordance with Condition 3(b): A. Date of every process unit or vessel turnaround. B. The internal pressure of the process unit or vessel immediately prior to venting to the atmosphere. *[Reference: 7 **DE Admin. Code** 1124, Section 28(c) and (d) dated 11/11/93].*	
4. **General conditions applicable to all pollutants:** i. Operational Limitations: A. At all times, including periods of startup, shutdown, and malfunction, the Owner/Operator shall maintain and operate the equipment and processes covered by this Permit, including all structural and mechanical components of all equipment and processes and all associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]*	ii. Compliance Methodology: Compliance with the Operational Limitation shall be based on whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. *[Reference: 7 **DE Admin. Code** 1130, Section 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii). iv. Record Keeping: None in addition to those listed in Condition 3(b)(2) of this permit.	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
5. **Sulfur Dioxide** i. Operational Limitation: The Owner/Operator shall not purchase for use and shall not use any fuel having a sulfur content greater than 1.0 percent. *[Reference: Regulation No. 1108, Section 2.1 dated 5/9/85]*	ii. Compliance Methodology: Compliance with the operational limitation shall be based on the fuel type and quality. *[Reference **7 DE Admin. Code** 1130 Sections 6.1.3.1.2 dated 12/11/00]* iii. Monitoring/Testing: None in addition to those listed in Condition 3(b)(1)(ii). iv. Record Keeping: The Owner/Operator shall maintain a record of the type of fuel purchased for use or used in any emission unit. *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3.1.2 dated 12/11/00]*	v. 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]* vi. 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. **Volatile Organic Compounds Handling, Storage and Disposal of VOCs.** i. Work Practice Standards: A. The Owner/Operator shall not cause, allow, or permit the disposal of more than eleven (11) pounds of a Volatile Organic Compound (VOC), or of any materials containing more than eleven (11) pounds of any VOCs, in any one (1) day, in a manner that would permit the evaporation of VOC into the ambient air. This includes but is not limited to the disposal of VOC from any VOC control devices. This provision does not apply to: 1. Any VOC or material	ii. Compliance Method: Compliance shall be demonstrated by adherence with the VOC handling work practices and by providing appropriate training and posting of instructions, and record keeping for storage, use and disposal of VOCs. *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: Monitor employee training records on an annual basis and update records as needed. *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]* iv. Recordkeeping: The Owner/Operator shall keep a record of postings, and employee training related to these work practice standards of handling, storage, and disposal of VOCs. *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]*	v. 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]* vi. 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]*

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
containing VOC emitted from a regulated entity that is subject to a VOC standard under Regulation No. 24. 2. Any VOC or material containing VOCs used during process maintenance turnarounds for cleaning purposes, provided that the provisions of paragraph (B), (C), and (D) of this condition are followed. 3. Waste paint (sludge) handling systems, water treatment systems, and other similar operations at coating facilities using complying coatings. B. No owner or operator of a facility subject to this regulation shall use open containers for the storage or disposal of cloth or paper impregnated with VOCs that are used for surface preparation, cleanup, or coating removal. Containers for the storage or disposal of cloth or paper impregnated with VOCs shall be kept closed, except when adding or removing material. C. No owner or operator of a facility subject to this regulation shall store in open containers spent or fresh VOC to be used for surface		

Condition 3 - Table 2 (Specific Requirements)

Emission Limitation(s)/Standard(s) and/or Operational Limitation(s)/Standard(s)	Compliance Determination Methodology (Monitoring/Testing, QA/QC Procedures (as applicable) and Record Keeping	Reporting/Compliance Certification
preparation, cleanup or coating removal. Containers for the storage of spent or fresh VOCs shall be kept closed, except when adding or removing material. D. No owner or operator shall use VOC for the cleanup of spray equipment unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere. *[Reference: 7 **DE Admin. Code** 1124 Section 8 dated 11/29/93]*		
7. **Insignificant Emissions Units** i. The facility is allowed to operate the insignificant emissions units listed in Attachment "C" of this permit. *[Reference: 7 **DE Admin. Code** 1130 Section 6.1.1 dated 12/11/00]*	ii. Compliance Method: Compliance shall be based on following good air pollution control practices, the monitoring/testing and recordkeeping requirements. *[Reference:7 **DE Admin. Code** 1130 Section 6.1.3 dated 12/11/00]* iii. Monitoring/Testing: None in addition to Condition 3(b) of this permit. iv. Recordkeeping: None in addition to Condition 3(b) of this permit.	v. 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]* vi. 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]*

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Ravi Rangan, P.E.

Condition 3 – Table 3 (Specific Requirements)

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 11.8, dated 06/01/1997]* I. The H_2S content of the RFG shall not	ii. Compliance Method: *[Reference APC-90/0288(A5), APC-90/0289(A6), 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 Condition 3 - Table 1.f.	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 60.7(c) and (d)]* J. Comply with "Combined Limits" in

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
exceed 0.10 grain/dscf on a 3 hour rolling average. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-97/0503(A3)]* J. Comply with "Combined Limits" in 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, 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)]*	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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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), 90/0290(A5) and APC-90/0291]* A. **[RESERVED]** B. PM_{10} emissions including H_2SO_4 shall not exceed the following limits: 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.	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 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]**	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]*

Condition 3 – Table 3 (Specific Requirements)

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. 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).	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 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	iii. Compliance Method: *[Reference: APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]* A. **[RESERVED]**	vi. Reporting: None in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii),

Condition 3 – Table 3 (Specific Requirements)

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 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).	B. Compliance with the SO_2 Emission Standards for Boilers 80-1, 80-2 and 80-3 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, 80-2 and 80-3. 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 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	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]* 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).

Condition 3 – Table 3 (Specific Requirements)

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. 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 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]** C. 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. D. **[RESERVED]** E. **[RESERVED]** F. **[RESERVED]** ii. Operational Limitation:	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 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,	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 (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]*

Condition 3 – Table 3 (Specific Requirements)

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 (EU-80).	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]* 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.	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-	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

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
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).	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 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	permit. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 – Table 3 (Specific Requirements)

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). 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).	
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).	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]*

Condition 3 – Table 3 (Specific Requirements)

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: 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).	
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	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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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. 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), APC-90/0289(A6), APC-90/0290(A5)]* iv. Monitoring/Testing: In addition to the requirements of	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]*

Condition 3 – Table 3 (Specific Requirements)

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).	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]** ii. SO_2 Requirements: A. The Owner/Operator shall: 1. Hold allowances for Boiler 4, as of the allowance transfer deadline, in	v. Compliance Method: Compliance with the SO_2 requirements shall be based on Monitoring, Recordkeeping and Reporting Requirements. vi. Monitoring Requirements: A. The Owner/Operator and, to the extent	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 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

Condition 3 – Table 3 (Specific Requirements)

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 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]** 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.	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 Part 75, Appendix "B." Relative accuracy evaluations shall be conducted using Method 15 of 40 CFR Part 75, Appendix "A." E. [**RESERVED**]	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 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*

Condition 3 – Table 3 (Specific Requirements)

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. 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.	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. 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	*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."*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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) These units have been permanently shut down		
1.		
2. **[RESERVED]**		
c. Emission Unit 82 (cont'd) and 50: Three-Cell Linear Mechanical Draft Cooling Tower 50 (Emission Point 50) The Amine Acid Gas Removal System 82-3 and Syngas Flare 82-4 (Emission Points 82-1and 82-2) have been permanently shut down		
1. [**RESERVED**]		
i. Operational Limitations: A. [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**]	ii. Compliance Method: [**RESERVED**] iii. Monitoring/Testing: [**RESERVED**] iv. Recordkeeping: [**RESERVED**] A. [**RESERVED**] B. [**RESERVED**] 1. [**RESERVED**] 2. [**RESERVED**]	v. Reporting: [**RESERVED**] A. [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**] E. [**RESERVED**] vi. Certification Requirement: [**RESERVED**]
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-97/0504]* A. The Owner/Operator shall not cause or allow the emission of particulate	iii. Compliance Method: *[Reference APC-97/0504]* A. Compliance with Emission Standard (A) shall be based on Monitoring,	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii),

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
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 Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).]	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 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]*	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]*
3. **[RESERVED]**		
i. Emission Standard:	iii. Compliance Method:	vi. Reporting:

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
[**RESERVED**] ii. Operational Limitations: [**RESERVED**]	A. [**RESERVED**] B. [**RESERVED**] iv. Monitoring/Testing: A. [**RESERVED**] B. [**RESERVED**] v. Recordkeeping: A. [**RESERVED**] [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**] E. [**RESERVED**] F. [**RESERVED**]	[**RESERVED**] vii. Certification Requirement: [**RESERVED**]
4. [**RESERVED**]		
i. Emission Standard: A. [**RESERVED**] B. [**RESERVED**] ii. Operational Limitations: [**RESERVED**]	iii. Compliance Method: A. [**RESERVED**] B. [**RESERVED**] iv. Monitoring/Testing: A. [**RESERVED**] B. [**RESERVED**] v. Recordkeeping: A. [**RESERVED**] [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**] D. [**RESERVED**]	vi. Reporting: [**RESERVED**] vii. Certification: [**RESERVED**]

Condition 3 – Table 3 (Specific Requirements)

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. [**RESERVED**]		
i. Emission Standard: [**RESERVED**] ii. Operational Limitations: [**RESERVED**]	iii. Compliance Method: [**RESERVED**] iv. Monitoring/Testing: [**RESERVED**] v. Recordkeeping: A. [**RESERVED**] [**RESERVED**] B. [**RESERVED**] C. [**RESERVED**]	vi. Reporting: [**RESERVED**] vii. Certification: [**RESERVED**]
6. [**RESERVED**]		
i. Emission Standard: [**RESERVED**] ii. Operational Limitations: [**RESERVED**]	iii. Compliance Method: [**RESERVED**] iv. Monitoring/Testing: [**RESERVED**] v. Recordkeeping: A. [**RESERVED**]	vi. Reporting: [**RESERVED**]A. [**RESERVED**] vii. Certification: [**RESERVED**]
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 APC-97/0503 (A8)]* 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*	iii. Compliance Method: *[Reference APC-97/0503 (A8)]* 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.	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

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
*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 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 (A8)]* A. **[RESERVED]** B. **[RESERVED]** C. **[RESERVED]** D. **[RESERVED]** E. **[RESERVED]** F. **[RESERVED]** G. **[RESERVED]** H. Only NG may be fired in the combustion chambers of the CCUs. Only NG or desulfurized RFG with a hydrogen sulfide content less than 0.1	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. **[RESERVED]** D. **[RESERVED]** E. .**[RESERVED]** F. Comply with "Combined Limits" in Condition 3 - Table 1.f. G. Compliance with Operational Limitation I shall be based on compliance with Table 1.d.4.i.C. H. Compliance with Operational Limitation H with respect to the H2S concentration in RFG shall be based on a continuous monitoring device. I. Compliance with Operational Limitations I and H shall be based on record keeping 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 97/0503 (A8)]* A. **[RESERVED]** B. **[RESERVED]** C. Comply with "Combined Limits" in Condition 3 - Table 1.f. D. Department representatives shall be given the opportunity to witness all	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. 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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
grain/dscf on a 3-hour rolling average may be fired in the DBs. I. The CCUs shall not be operated unless the LNBs are operating properly. J. **[RESERVED]**	stack test emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program. E. The CEMS required by Compliance Method H shall be installed for continuously monitoring and recording the concentration (dry basis) of H2S in RFG before it is combusted in any fuel burning device. This instrument shall be located downstream of all process steps which impact the composition of RFG prior to its being combusted in any fuel burning device. The instruments shall conform to the QA/QC requirements of Appendix "F" in 40 CFR Part 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. [**RESERVED**] B. The following records shall be maintained in accordance with Condition 3(b): *[Reference APC-97/0503 (A7)]* 1. Record of all operating hours of each CCU and DB. 2. [**RESERVED**] 3. [**RESERVED**]	

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	4. **[RESERVED]** 5. **[RESERVED]** 6. **[RESERVED]** 7. **[RESERVED]** 8 Rolling 24-hour heating value of the RFG combusted. 9. All 3-hour averages of the H2S content in RFG as measured by the H2S analyzer. 10. CEMS data including calibration log and results of all Cylinder Gas Audits and all Relative Accuracy Test Audits. C. Comply with "Combined Limits" in Condition 3 - Table 1.f.	
2. Particulate Emissions:		
i. Emission Standards: *[Reference APC-97/0503 (A8)]* A. **[RESERVED]** B. PM_{10} emissions including H_2SO_4 shall not exceed the following limits: 1. 0.0074 lb/mmBtu when firing natural gas in CCUs. 2. 0.0099 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. **[RESERVED]** 4. **[RESERVED]**5. 67 tons per year. C. **[RESERVED]**	iii. Compliance Method: *[Reference APC-97/0503 (A8)]* 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. 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	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]*

Condition 3 – Table 3 (Specific Requirements)

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. TSP emissions shall not exceed the following limits: 1. 0.0115 lb/mmBtu when firing natural gas in CCUs. 2. 0.0112 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. [**RESERVED**] 4. [**RESERVED**] 5. 47.8 tons per year. E. [**RESERVED**] ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1. (EU-84).	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 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	

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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(A8)]* 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 NG without duct firing. 2. 18 ppmvd @ 15% O_2 when CCU burns NG with duct firing. 3. **[RESERVED]** 4. **[RESERVED]** D. The NO_X emission rates from the CCUs shall not exceed 390 ppmvd @ 15% O_2 during startups and, shutdowns of the Combustion Turbines and/or duct burners. Such periods shall not exceed 2 hours in duration. E. [**RESERVED**] F. [**RESERVED**]	iii. Compliance Method: *[Reference APC-97/0503 (A8)]* 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. iv. Monitoring/Testing: *[Reference APC-97/0503 (A8)]* 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,	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: *[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).

Condition 3 – Table 3 (Specific Requirements)

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: A. **[RESERVED]** B. **[RESERVED]**	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]*	
5. Carbon Monoxide (CO):		
i. Emission Limitations: *[Reference APC-97/0503(A8)]* A. **[RESERVED]** B. CO emissions on an hourly basis shall not exceed the following limits: 1. 0.0202 lb/mmBtu when firing natural gas in CCUs. 2. 0.0261 lb/mmBtu when firing NG in the CCUs and refinery fuel gas in the duct burners. 3. **[RESERVED]**. 4. **[RESERVED]** 5. 110.9 tons per year	iii. Compliance Method: *[Reference APC-97/0503 (A8)]* 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(A8)]* A. The Owner/Operator shall operate and maintain CO CEMS for the CCUs.	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*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
C. The above limits shall not apply during periods of startup and shutdown of the combustion turnbines and/or duct burners. Such periods shall not exceed 2 hours in duration. The Owner/Operator shall follow good air pollution control practices to minimize CO emissions during these periods. ii. Operational Limitations: *[Reference APC-97/0503 (A8)]* Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	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).	*Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*
6. Volatile Organic Compounds (VOC):		
i. Emission Standards: *[Reference APC-97/0503 (A8)]* A. **[RESERVED]** B. VOC as measured by the average of the three stack test runs pursuant to the stack tests: 1. 0.0021 lb/mmBtu when firing natural gas in CCUs. 2. 0.0046 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. **[RESERVED]**. 4. **[RESERVED]** 5. 19.8 tons per year. ii. Operational Limitations:	iii. Compliance Method: *[Reference APC-97/0503(A8)]* 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	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 Part 3, 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]*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3, Condition 3 - Table 1.d.1 (EU-84).	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. 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 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: 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	iii. Compliance Method: *[Reference APC-97/0503 (A8)]* Compliance with the visible Emission Standard shall be based on Monitoring/Testing requirements and on information available to the Department	vi. Reporting: None 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
more than 15 minutes in any 24 hour period. *[Reference APC-97/0503(A8)]* ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84).	which may include, but is not limited to, monitoring results, opacity and process operating data. iv. Monitoring/Testing: A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the units are in operation. B. If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with paragraph D below. C. If no visible emissions are observed, no further action is required. D. If required by paragraph B above, the Company shall, in accordance with subsection 1.5(c) of 7 DE Admin. Code 1120, conduct visible 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, qualifications 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 Reference Method 9 set forth in Appendix A of 40 CFR Part 60, revised July 1, 1982.	A. [**RESERVED**] 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]*

Condition 3 – Table 3 (Specific Requirements)

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: 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 a log of daily qualitative stack observations for each CCU.	
10. Sulfuric Acid Mist (H_2SO_4)		
i. Emission Limitation: H_2SO_4 as measured by the average of the three stack test runs shall not exceed 3.1 tons per year. *[Reference APC-97/0503(A8)]*	ii. Compliance Method: *[Reference APC-97/0503 (A8)]* A. Compliance with the H_2SO_4 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 H_2SO_4 by subtracting the heat input of the duct burners. iii. 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	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. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi (EU-84). vi. 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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	of H_2SO_4 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 operation by subtracting the heat input contributed by the duct burners. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	
11. Lead (Pb)		
i. Emission Limitation: Lead emissions shall not exceed 0.004 tons per year. *[Reference APC-97/0503(A8)]*	ii. Compliance Method: *[Reference APC-97/0503 (A8)]* Compliance with the Pb Emission Standards shall be based on firing only natural gas in the CCUs and either natural gas or desulfurized refinery fuel gas in the duct burners. iii. Monitoring/Testing None in addition to Condition 3.b of this permit. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v. (EU-84).	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. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi. (EU-84). vi. 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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
12. Sulfur Dioxide (SO_2)		
i. Emission Limitation: SO_2 emissions shall not exceed 36.5 tons per year. *[Reference APC-97/0503(A8)]*	ii. Compliance Method: *[Reference APC-97/0503 (A8)]* Compliance shall be based on firing only NG in the CCUs and either NG or desulfurized RFG in the DBs. iii. Monitoring/Testing None in addition to Condition 3.b of this permit. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	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. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi (EU-84). vi. 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]
e. Facility-Wide: See Part 2, Condition 3 – Table 1.ob.		
1. Conditions applicable to Multiple Pollutants: **[RESERVED]**		
i. Operational Limitations: A. **[RESERVED]** B. **[RESERVED]**	ii. Compliance Method: **[RESERVED]** iii. Monitoring & Testing: **[RESERVED]** iv. Recordkeeping: **[RESERVED]**	v. Reporting Requirement: **[RESERVED]** vi. Certification Requirement: **[RESERVED]**
2. Odor: **[RESERVED]**		
i. Emission Standard: **[RESERVED]**	iii. Compliance Method: **[RESERVED]**	vi. Reporting Requirement: **[RESERVED]**

Condition 3 – Table 3 (Specific Requirements)

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: **[RESERVED]**	iv. Monitoring & Testing: **[RESERVED]** v. Recordkeeping: **[RESERVED]**	vii. Certification Requirement: **[RESERVED]**
3. Visible Emissions: **[RESERVED]**		
i. Emission Standard: **[RESERVED]** ii. Operational Limitations: **[RESERVED]**	iii. Compliance Method: **[RESERVED]** iv. Monitoring/Testing: A. **[RESERVED]** B. **[RESERVED]** 1. **[RESERVED]** 2. **[RESERVED]** 3. **[RESERVED]** v. Recordkeeping: **[RESERVED]**	vi. Reporting: **[RESERVED]** vii. Certification: **[RESERVED]**
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. **[RESERVED]** 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	ii. Compliance Method: *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-97/0503(A7)]* A. **[RESERVED]** B. Compliance with Operational Limitation (C) shall be based on recordkeeping.	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]*

Condition 3 – Table 3 (Specific Requirements)

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 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]*	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 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-	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 NO_X and CO CEMS and COMS reports for CEMS required 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

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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)]*	the report. *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-97/0503(A7)]*
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]*	iii. Compliance Method *[Reference APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-97/0503(A7)]* 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	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.

Condition 3 – Table 3 (Specific Requirements)

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 Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.a.2.	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. *[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	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 the H_2S Continuous Monitoring System (CMS) for Boilers 80-1, 80-2, 80-3 and the duct burners of the CCUs.	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 -

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
combined. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, 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 H_2S CMS for Boilers 80-1, 80-2 and 80-3. B. **[RESERVED]** 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).	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]*
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 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 -	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: 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	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: 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]*

Condition 3 – Table 3 (Specific Requirements)

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.a.2.	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. 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	

Condition 3 – Table 3 (Specific Requirements)

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.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 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.	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]*

Condition 3 – Table 3 (Specific Requirements)

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: 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: 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(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-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.	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]*

Condition 3 – Table 3 (Specific Requirements)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	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. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.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: A. **[RESERVED]** B. None in addition to Condition 3.b of this permit.	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]*

Condition 3 – Table 3 (Specific Requirements)

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: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
9. Carbon Dioxide (CO_2): State Enforceable Only		
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 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)]*	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 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-*	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. 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]*

Condition 3 – Table 3 (Specific Requirements)

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. 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 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	*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: 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)]*	

Condition 3 – Table 3 (Specific Requirements)

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 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 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)		
3. 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)]*	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)]*

Condition 3 – Table 3 (Specific Requirements)

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. 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, 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.	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]*

Condition 3 – Table 3 (Specific Requirements)

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-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 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.	iii. Compliance Method: *[Reference APC-2009/0089(A1)]* A. Compliance with the Particulate Emission Standards 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 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.	vi. Reporting: Nothing 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. *[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]*

Condition 3 – Table 3 (Specific Requirements)

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: 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.	
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.	vi. Reporting: Nothing 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. *[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]*
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 Part 2 Condition 3 - Table 1.j.	ii. Compliance Method: *[Reference APC-2009/0089(A1)]* Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 2 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	v. Reporting: Nothing 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]* vi. Certification:

Condition 3 – Table 3 (Specific Requirements)

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 a protocol approved by 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].*	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]*
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 lb/MMBtu from each package boiler.	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.	vi. Reporting: Nothing 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3 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 Part 3 Condition 3 - Table 1.g.1.iv.	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. Volatile Organic Compounds (VOC):		
i. Emission Standards: *[Reference APC-2009/0089(A1)]* A. VOC emissions from the package boilers shall not exceed 2.5 TPY. B. VOC emissions shall not exceed 0.0014 lb/MMBtu from each package boiler.	iii. Compliance Method: *[Reference APC-2009/0089(A1)]* A. Compliance with the VOC Emission Standards shall be shall be demonstrated by firing only natural gas or by using annual stack test based emission factors obtained while firing	vi. Reporting: Nothing 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3 Condition 3 - Table 1.g.1.i.	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 Part 3 Condition 3 - Table 1.g.1.iv.	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]*
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.	iii. Compliance Method: A. Compliance with the H_2SO_4 Emission Standard shall be based on the Monitoring/Testing and Recordkeeping	vi. Reporting: Nothing 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3 Condition 3 - Table 1.g.1.i.	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 Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.iv.	*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]*
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.	iii. Compliance Method: A. Compliance with the NH_3 Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements.	vi. Reporting: Nothing 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. *[Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3 Condition 3 - Table 1.g.1.i.	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 Part 3 Condition 3 - Table 1.g.1.iv.	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. 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	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	vi. Reporting: Nothing 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. *[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]*

Condition 3 – Table 3 (Specific Requirements)

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 Part 3 Condition 3 - Table 1.g.1.i.	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 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:	

Condition 3 – Table 3 (Specific Requirements)

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. Maintain a record of the daily qualitative stack observations.	

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Ravi Rangan, P.E.