AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 NMAC

Certified Mail No:
Return Receipt Requested

NSR Permit No:	PSD-195-M40
Facility Name:	HF Sinclair Navajo Refining LLC
Permittee Name/Owner/Operator:	HollyFrontier Navajo Refining LLC
Mailing Address:	501 East Main Street Artesia, NM 88210
TEMPO/IDEA ID No:	198-PRN20210005
AIRS No:	35 0150010
Permitting Action:	PSD Major Modification
Source Classification:	TV Major, PSD Major with BACT
Facility Location:	557,020 m E by 3,634,010 m N, Zone 13; Datum NAD27
County:	Eddy
Air Quality Bureau Contact	James E. Nellessen
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Liz Bisbey-Kuehn
Bureau Chief
Air Quality Bureau

Date

Template version: 06/30/2021

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PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)

PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. This permit, NSR PSD-195-M40, supersedes all portions of Air Quality Permit PSD-195-M39R1, issued August 13, 2020, including revisions through the M39R5 facility name change approved September 15, 2022, except portions requiring compliance tests. Compliance test conditions from previous permits, if not completed, are still in effect, in addition to compliance test requirements contained in this permit.

B. This permit includes Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) requirements that were imposed in accordance with the PSD permit regulation 20.2.74 NMAC. BACT requirements and conditions are included Sections A105 and A106 and additional specific conditions. Any removal or revision of any BACT requirement(s) must first be approved by the Department through an appropriate new source review permit application that includes a BACT re-evaluation consistent with 20.2.74 NMAC. The permittee was under a Consent Decree CIV-01 1422LH Lodged 12/20/2001, Entered 3/5/2002 that is referenced throughout this document as the "Consent Decree" or "CD" with reference numbers from that document. The Consent Decree provisions were implemented in NSR Permit 195-M17 issued December 15, 2004, with references maintained in certain conditions to clarify the source of the requirement.

A101 Permit Duration (expiration)

A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

A102 Facility: Description

A. The function of the facility is to process crude oil and petroleum distillates into petroleum products such as diesel, gasoline and asphalt.

B. This facility is located partially within the city limits of Artesia, NM, Eddy County, NM.

C. This modification consists of the following:

(1) Revise fuel composition for three process heaters.

(2) Revise heat inputs and emission limits for several combustion units.

(3) Revise emission limits for the flares.

(4) Revise emission calculations for the SRU tail gas incinerators, the fluidized catalytic cracking regenerator, and the cooling towers.

(5) Revise emissions calculations for truck and rail car loading.

(6) Revise emission limits and representations for true vapor pressure for storage tanks and loading racks.

(7) Retrofit tank T-0418 with an internal floating roof consistent with 40 CFR 63.660.

(8) Reduce fugitive emissions limits from equipment leaks by more than 400 tpy that resulted from more accurate component counts.

(9) Revise emission limits for wastewater treatment operations.

(10) Remove from the permit emissions from the dismantled renewable diesel unit (RDU).

(11) Revise some of the SSM emission figures.

(12) Four projects evaluated for PSD applicability:

(a) Storage tanks and loading racks.

(b) Flares.

(c) Hydrogen reformer furnaces.

(d) Dissolved air flotation units.

Of the four projects listed in paragraph (12) above only the flares project triggered PSD major modification. The description of this modification is for informational purposes only and is not enforceable.

D. Tables 102.A and Table 102.B show the total potential emission rates (PER) from this facility for information only. This is not an enforceable condition and excludes emissions from Minor NSR exempt activities per 20.2.72.202 NMAC.

Table 102.A: Total Potential Emission Rate (PER) from Entire Facility

Pollutant	**Emissions (tons per year)**
Nitrogen Oxides (NOx)	760.6
Carbon Monoxide (CO)	1379.9
Volatile Organic Compounds (VOC) [1]	1268.1
Sulfur Dioxide (SO_2)	417.8
Particulate Matter 10 microns or less (PM_{10})	204.0
Particulate Matter (PM)[2]	208.9
Particulate Matter 2.5 microns or less ($PM_{2.5}$)	198.8
Hydrogen Sulfide (H_2S)	5.2
Greenhouse Gas (GHG) as CO_2e	2,029,709

1. VOC total includes emissions from Fugitives, SSM and Malfunctions.

2. PM is a regulated new source review pollutant per 20.2.74 NMAC Prevention of Significant Deterioration. No ambient air quality standards apply to PM.

Table 102.B: Total Potential Emissions Rate (PER) for *Hazardous Air Pollutants (HAPs) and State Toxic Air Pollutants (TAPs) that exceed 1.0 ton per year

Pollutant	Emissions (tons per year)
Acetaldehyde; (Ethyl aldehyde)	1.1
Acrolein	3.4
Ammonia[1]	77.2
Benzene	9.0
Butadiene (1,3-)	4.1
Carbon Disulfide	4.0
Ethylbenzene	3.1
Formaldehyde	3.4
Hexane	35.3
Hydrogen Cyanide; (Hydrocyanic acid)	92.1
Methylene chloride; (Dichloromethane)	8.2
Phenol	5.3
Sulfuric acid[1]	17.2
Toluene; (Methyl benzene)	15.7
Trimethylpentane (2,2,4-)	17.3
Xylenes (total); (Xylol)	15.1
Total HAP**	217.1

* HAP emissions are already included in the VOC emission total.

** The total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs greater than 1.0 tons per year are listed here.

1 – TAPs per 20.2.72.502 NMAC. TAPs are not included in the HAP total.

A103 Facility: Applicable Regulations

A. The permittee shall comply with all applicable sections of the requirements listed in Table 103.A.

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.3 NMAC Ambient Air Quality Standards	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.33 NMAC Gas Burning Equipment - Nitrogen Dioxide	X	See Table 103.E (heaters)
20.2.38 NMAC Hydrocarbon Storage Facilities		Entire Facility (see Table 103.C, tanks)

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.61 NMAC Smoke and Visible Emissions	X	All combustion sources
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permit	X	Entire Facility
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.74 NMAC Permits – Prevention of Significant Deterioration (PSD)	X	Entire Facility
20.2.75 NMAC Construction Permit Fees	X	Entire Facility
20.2.77 NMAC New Source Performance Standards	X	Units subject to 40 CFR 60
20.2.78 NMAC Emissions Standards for Hazardous Air Pollutants	X	Units subject to 40 CFR 61
20.2.82 NMAC Maximum Achievable Control Technology Standards for Source Categories of HAPs	X	Units subject to 40 CFR 63
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	Units subject to 40 CFR 60
40 CFR 60, Subpart Db	X	See Table 103.E (heaters)
40 CFR 60, Subpart Dc	X	See Table 103.E (heaters)
40 CFR 60, Subpart J	X	See Tables 103.E (heaters), 103.H (FCC Regen), 103.I (SRU), and 103.K (flares)
40 CFR 60, Subpart Ja	X	See Tables 103.E (heaters), 103.H (FCC Regen), 103.I (SRU), and 103.K (flares)
40 CFR 60, Subpart K	X	See Table 103.C (tanks)
40 CFR 60, Subpart Ka	X	See Table 103.C (tanks)
40 CFR 60, Subpart Kb	X	See Table 103.C (tanks)
40 CFR 60, Subpart GGGa	X	See Table 103.B (fugitives)
40 CFR 60, Subpart NNN	X	W-623
40 CFR 60, Subpart QQQ	X	See Tables 103.B (fugitives) and 103.G (wastewater)
40 CFR 60, Subpart RRR	X	Alky Reactor
40 CFR 60, Subpart IIII	X	See Table 103.J (engines)
40 CFR 61, Subpart M	X	Entire Facility
40 CFR 61, Subpart FF	X	See Tables 103.C (tanks) and 103.G (wastewater)
40 CFR 63, Subpart A, General Provisions	X	Units subject to 40 CFR 63

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
40 CFR 63, Subpart CC	X	See Tables 103.B (fugitives), 103.C (tanks), 103.D (loading), 103.F (cooling towers), 103.G (wastewater), and 103.K (flares)
40 CFR 63, Subpart DDDDD	X	See Table 103.E (heaters)
40 CFR 63, Subpart UUU	X	See Tables 103.H (FCC-CCR) and 103.I (SRU)
40 CFR 63, Subpart ZZZZ	X	See Table 103.J (engines)
40 CFR 68, Chemical Accident Prevention	X	Entire Facility
40 CFR 82, Stratospheric Ozone	X	Entire Facility
Consent Decree (CD) CIV-01 1422LH Lodged 12/20/2001, Entered 3/5/2002. The CD was implemented via NSR 195-M17 issued 12-15-2004.	X	Entire Facility

Tables 103.B through 103.K (listed below) are located in Attachment D.

Table 103.B, Summary Applicability – Fugitives

Table 103.C, Summary Applicability – Tanks

Table 103.D, Summary Applicability – Loading

Table 103.E, Summary Applicability – Heaters and Boilers

Table 103.F, Summary Applicability – Cooling Towers

Table 103.G, Summary Applicability – Wastewater

Table 103.H, Summary Applicability – FCC-CCR

Table 103.I, Summary Applicability – SRU

Table 103.J, Summary Applicability – Engines

Table 103.K, Summary Applicability – Flares

A104 Facility: Regulated Sources

A. Table 104.A, Regulated Sources List, is included in Attachment D, and lists the emission units authorized for this facility. Emission units identified as exempt activities (as defined in 20.2.72.202 NMAC) and/or equipment not regulated pursuant to the Act are not included, unless required to demonstrate an exemption through a permit condition.

Table 104.A: Regulated Sources List (see Attachment D)

A105 Facility: Control Equipment

A. Table 105 lists all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

Table 105.A: Control Methods and Equipment List and BACT Controls:

Control Equipment Unit No.	Control Description	BACT[2] Yes or No	Pollutant being controlled	Control for Unit Number(s)[1]
FCC Regenerator Scrubber	Fluid Catalytic Cracking Unit Regenerator Cyclones and Wet Gas Scrubber	NO	PM & SO_2	FCC Regenerator
CHLOR SORB®	CCR Regenerator Vent Control	NO	HAP & PM10	CCR Regenerator Vent
FL-0400	North Plant Flare	YES	VOC & H_2S	Refinery process units
FL-0401	South Plant Flare	YES	VOC & H_2S	Refinery process units
FL-0402	FCC Flare	YES	VOC & H_2S	Refinery process units
FL-0403	Alky Flare	YES	VOC	Refinery process units
FL-0404	GOHT Flare	YES	VOC & H_2S	Refinery process units
FL-HEP-PORT	Portable Flare for Holly Energy Partners (HEP) Pipeline Pigging Operations	NO	VOC	Pipeline Pigging Operations

Table 105.A: Control Methods and Equipment List and BACT Controls:

Control Equipment Unit No.	Control Description	BACT[2] Yes or No	Pollutant being controlled	Control for Unit Number(s)[1]
H-0473 (SRU2 TGI)	Sulfur Recovery Unit 2 Tail Gas Incinerator	NO	Sulfur (H2S)	SRU2
SCR	Selective Catalytic Reduction + ultra-low NOx burners	YES	NO_x	H-9851
H-3103 (SRU3-TGI)	Sulfur Recovery Unit 3 Tail Gas Incinerator	YES	Sulfur (H2S)	SRU3
H-3103 (SRU3/TGTU3/TGI3)	Best Work Practices, A207.B (BACT)	YES	SO_2	SRU3
D-0829/0830	Main API Carbon Canisters	NO	VOC	S1/T1, API T-894 and API T-895
Y-0011, Y-0012	Drift Eliminators on Cooling Towers (BACT)	YES	PM	Y-0011, Y-0012
T-0737, T-1225	External Floating Roofs (BACT)	YES	VOC	T-0737, T-1225
See Tables 106.B(1) and (2)	External and Internal Floating Roofs	NO	VOC	See Tables 106.B(1) and (2)
B-0009	Energy Efficiency, A204.N (BACT)	YES	Greenhouse Gases	B-0009
H-2501, H-3101, H-3402	Ultra-low NOx burners (BACT)	YES	NOx	H-2501, H-3402, H-3101
H-3103 (SRU-TGI), H-2501, H-3402, H-3101	Combust gaseous fuels only	YES	VOC, PM	H-3103 (SRU-TGI), H-2501, H-3402, H-3101
TL-4 VRU	Fuels Truck Loading Rack Vapor Recovery Unit (VRU)	NO	VOC	TL-4
TL-4 VCU	Fuels Truck Loading Rack Vapor Combustion Unit (VCU) (backup to TL-4 VRU)	NO	VOC	TL-4
SSM Tank VCU	Vapor Combustion Unit during tank maintenance	NO	VOC	Any regulated tank
T-0049	Carbon cannister for Tank T-0049	NO	VOC	T-0049 vent

Table 105.A: Control Methods and Equipment List and BACT Controls:

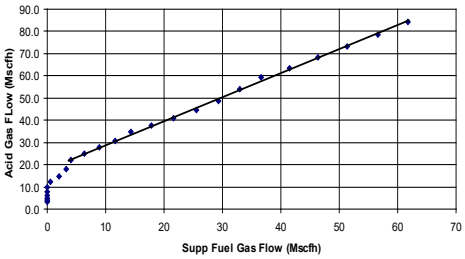
Control Equipment Unit No.	Control Description	BACT[2] Yes or No	Pollutant being controlled	Control for Unit Number(s)[1]
D-8000/D-8001	Wastewater collection system carbon cannisters	NO	VOC	Collector Sump, T-0844, T-0845, T-0846
WWTP	Carbon cannisters at WWTP	NO	VOC	WWTP

1 Control for unit number refers to a unit number from the Regulated Source List.
2 See Section 106.D for specific BACT requirements.

B. In accordance with the requirement that Navajo Refining prevent exceedances of the 24-hour and 3-hour National Ambient Air Quality Standards (NAAQS) for SO_2 during major refinery malfunctions, Navajo Refining shall only flare acid gas from Flare FL-0400. Navajo shall undertake the following measures for acid gas flaring from FL-0400.

(1) Existing Flare FL-0400 shall be equipped with a flare tip or burners to supply supplemental fuel gas to provide enough heat to supplement the heat released by combustion of the acid gas itself and the heat provided by smoke-suppressing steam. The minimum flow rate of supplemental fuel gas to be supplied during acid gas flaring such that compliance with the NAAQS for SO_2 is assured shall be determined using Chart No. 1. The fuel gas used for this purpose shall be sweetened fuel gas or sweet natural gas (see definition at C101.F).

CHART NO. 1
SUPP FUEL FOR SO2 NAAQS COMPLIANCE, FL-400

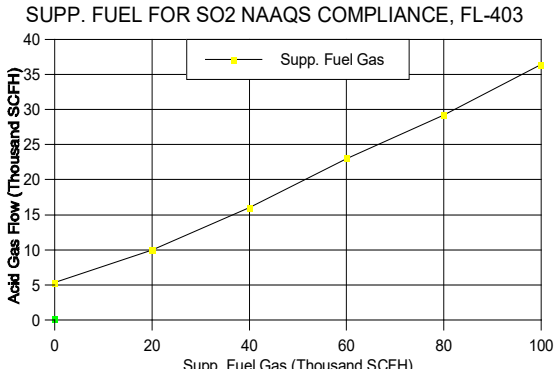


C. Beginning December 20, 2001, no fuel oil shall be burned in combustion units except as follows: (CD ¶17.C)

(1) Torch Oil may be burned in the FCC Regenerator during FCC start-ups; and.

(2) Fuel Oil may be burned in combustion units after the establishment of FCC NOx emissions limits pursuant to permit condition A110.A, provided that emissions from any such combustion units are routed through the FCC Wet Gas Scrubber and Navajo demonstrates, with the approval of EPA, that the NOx emissions limits contained therein and the SO_2 emissions limits stated in A106.A will continue to be met.

CHART NO. 2



D. The Artesia Refinery FCC was initially limited to less than 20,000 BPD capacity. Following the December 2003 expansion of the Artesia refinery's FCC as authorized by permit 195-M15, the catalyst regenerator for the FCC is subject to the minimum requirements for continuous emission monitoring and recording set forth in Appendix P to 40 CFR Part 51. Consent Decree Paragraph 15 required the FCC to be subject to NSPS Subpart J for opacity as of December 31, 2003. A wet gas scrubber was installed in 2003. An Alternative Monitoring Plan (AMP) request was submitted to EPA on December 31, 2003 because a continuous opacity monitoring system (COMS) will not work on a wet gas scrubber exhaust because of the interference from the water vapor. The AMP satisfies the requirements for both NSPS Subpart J and 40 CFR Part 51 Appendix P.

A106 Facility: Allowable Emissions

A. The following Section lists the emission units and their allowable emission limits. (40 CFR 50, 40 CFR 60, Subparts A, Db, Dc, J, Ja, K, Ka, Kb, GGGa, NNN, QQQ, RRR, and IIII, 40 CFR 61, Subparts A and FF, 40 CFR 63, Subparts A, CC, DDDDD, UUU, and ZZZZ, 20.2.72.210.A and B.1 NMAC).

Table 106.A: Allowable Emissions (see Attachment D)

B. The permitted emission sources at the refinery shall consist only of the sources listed in Table 106.A and Tables 106.B through 106.I and Table 107.A of this permit, and these tables are included in Attachment D.

C. Compliance with Allowable Emission Limits

Requirement: As applicable in specific conditions in this permit, the allowable MMBtu/hr (Table 104.A), lb/MMBtu and the allowable lb/hremission limits for equipment listed in Table 106.A are based on an hourly rolling 3-hour average.
Monitoring: For units with lb/MMBtu limits in A106.D(13), the Permittee shall monitor the MMBtu/hr and lb/MMBtu to demonstrate compliance with the MMBtu/hr, lb/hr, and tpy emission limits.
Recordkeeping: To demonstrate compliance, records shall be kept on a monthly basis showing the correlation between lb/MMBtu and hourly and 12-month rolling yearly totals. The records shall also document any non-compliance with emission limits. For each unit, a summary of the method used to determine compliance shall be recorded. The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

D. **Facility BACT:** The following conditions list and identify all of the **BACT** required for this facility.

(1) NOx - The steam-methane reformer furnace (H-9851) shall be equipped with a selective catalytic reduction (SCR) control system to reduce NOx emissions to 0.0125 lb per MMBtu (LHV basis) on an hourly rolling 3-hour average basis at 3% excess oxygen. The SCR exhaust is limited to 7 ppmv ammonia slip, measured on a wet basis. During startup, shutdown, schedule maintenance or malfunction of the SCR control system, BACT for H-9851 shall be ultra-low NOx burners emitting no more than 0.03 lb per MMBtu (LHV) on an hourly rolling 3-hour average basis at 3% excess oxygen. Pound per hour and tons per year limits are based on the lb/MMBtu limits and were used to demonstrate compliance with the lb/MMBtu limits and the Ambient Air Quality Standards (AAQS).

(2) NOx - The remaining process heaters H-2501, H-3101, and H-3402 shall be equipped with Next Generation Ultra-Low NOx Burners (NGULNBs) emitting no more than 0.03 lb NOx per MMBtu (LHV basis) on an hourly rolling 3-hour average basis at 3% excess oxygen. Pound per hour and tons per year limits are based on the lb/MMBtu limits and were used to demonstrate compliance with the lb/MMBtu limits and the Ambient Air Quality Standards (AAQS).

(3) CO – The steam-methane reformer furnace H-9851 and the ROSE-2 hot oil heater H-2501 are each limited to 0.06 lb CO per MMBtu (LHV basis) on a hourly rolling 3-hour average basis. Pound per hour and tons per year limits are based on the lb/MMBtu limits and were used to demonstrate compliance with the lb/MMBtu limits and the Ambient Air Quality Standards (AAQS).

(4) CO - The other proposed process heaters H-3402, and H-3101 are each limited to 0.09 lb CO per MMBtu (LHV basis) on an hourly rolling 3-hour average basis. Pound per hour and tons per year limits were based on the lb/MMBtu limits and are used to demonstrate compliance with the lb/MMBtu limits and the Ambient Air Quality Standards (AAQS).

(5) VOC – The combustion sources proposed in Permit 195-M25 (Units H-3103 (SRU-TGI), H-2501, H-3101, and H-3402) shall exclusively combust gaseous fuels. Gaseous fuel is defined as purchased natural gas, refinery gas or a combination of natural and refinery gas but does not include liquid or solid fuel.

(6) PM10 – The combustion sources proposed in Permit 195-M25 (Units H-3103 (SRU-TGI), H-2501, H-3101, and H-3402) shall exclusively combust gaseous fuels.

(7) SO_2 – Fuel sulfur limit Refinery-Wide for all units burning refinery fuel gas shall not exceed 60 ppmv H_2S on a daily rolling 365-day average. The ton/yr emission rates for SO_2 in Table 106.A of this permit are based on total sulfur. Compliance shall also be demonstrated per the methods described in Condition A110.A.

(8) SO_2 – The Sulfur Recovery Unit No. 3 Tail Gas Incinerator (SRU3-TGI = H-3103) is limited to 192 ppmvd SO_2 at zero percent oxygen on an hourly rolling 12-hour average basis. In addition, SRU3-TGI (H-3103) is limited to 192 ppmvd SO_2 at zero percent oxygen on a daily rolling 365-day average basis.

(9) VOC – The naphtha storage tank T-1225 and sour water storage tank T-0737 shall be equipped with an external floating roof using double seals to reduce VOC emissions to the atmosphere. The maximum true vapor pressure of any volatile organic liquid stored in either tank shall not exceed 11.1 psia. Demonstration of compliance is through the NSPS Kb and MACT emission limits.

(10) VOC – All fugitive piping components in VOC service associated with the process units proposed in Permit 195-M25 (Units FUG-25-ROSE-2, FUG-31-H-3103 (SRU3/TGI3/TGI3), and FUG-34-Hydorcracker) shall be monitored under the MACT subpart CC leak detection and repair program, or an approved equivalent program, to reduce VOC emissions.

(11) VOC – Consistent with MACT Subpart CC, and 40 CFR 63.422(b), emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks (Unit TLO-4) shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded.

(12) PM10 – Cooling towers, Units Y-0011 and Y-0012, shall be equipped with high-efficiency drift eliminators to reduce PM10 emissions. Demonstration of compliance is through annual inspection in accordance with Condition A212.B.

(13) NOx – Boiler/Heater Summary of NOx emission factor requirements:

NOx (lb/MMBtu)[2]	Applicable Units[1]
0.0125	[3]H-9851
0.03	H-2501, H-3101, H-3402
0.045	H-0352, H-0353, H-0354, H-0601
0.05	H-0600
0.0535	H-0020
0.06	B-0007, B-0008

1 Heat input capacities (MMBtu/hr) are represented in Table 104.A, Regulated Equipment List.

2 NO_X hourly emission limits are based on specified heat input capacities and the corresponding NO_X emission rates (lb/MMBtu). Emission rate (lb/MMBtu) limits, compliance demonstration, and monitoring requirements include any identified in Specific Requirements A106.D and/or Section A204. The NO_X lb/MMBtu emission rates are limits either defined in Specific Requirements A106.D and/or Section A204, defined in previous permit applications as BACT limits, or are identified as limits to address the Consent Decree.

3 Unit H-9851 has Ammonia Slip limit of 7 ppmv on a wet basis and 6.1 tpy (Condition A106.D(1)).

(14) VOC – Flare BACT: See table below.

Flare BACT Table: VOC BACT Limits.

Emission Unit(s)		Pollutant	BACT Limit (numerical figure implemented)	BACT Control Method (implemented BACT)	BACT Floor Source[1]
Flares	FL-400, FL-401, FL-402, FL-403, FL-404	VOC	[5]Process VOC: FL-400: 26.01 pph FL-401: 19.72 pph FL-402: 98.18 pph FL-403: 32.54 pph FL-404: 160.50 pph SSM flare cap (all flares): 1376.30 pph VOC	GCP[2]; fuel requirements per existing refinery wide BACT is in Conditions A106.D(7)[3] and A110.A; 40 CFR 60 Subpart Ja and Subpart A; 98% DRE[4] for VOC	40 CFR 60 Subpart Ja requirements and Subpart A

1. Stated as BACT floor even if not subject to a standard per PTE. See NSPS/NESHAP requirements in permit.
2. GCP = Good Combustion Practices.
3. Existing refinery-wide fuels BACT. See Conditions A106.D and A110.A in the permit.
4. DRE = Destruction rate efficiency.
5. These pph BACT VOC emission limits are also represented in Table 106.A.

A107 Facility: Allowable Startup, Shutdown, & Maintenance (SSM) and Malfunction Emissions

A. The maximum allowable SSM and Malfunction emission limits for this facility are listed in Table 107.A and were relied upon by the Department to determine compliance with applicable regulations.

Table 107.A: **Allowable SSM and Malfunction Units, Activities, and Emission Limits (see Attachment D).**

B. The authorization of emission limits for startup, shutdown, maintenance, and malfunction does not supersede the requirements to minimize emissions according to General Conditions B101.F and B107.A.

C. SSM and Malfunction Flaring Emissions (SSM Flare Cap and Flare Malfunction Cap for FL-0400, FL-0401, FL-0402, FL-0403, and FL-0404)

Requirement: Compliance with routine predictable startup, shutdown, and maintenance (SSM) and malfunction combustion emissions limits in Table 107.A shall be demonstrated by operating the flares in accordance with the requirements of Conditions A206.A and A206.B of this permit and with monitoring and recordkeeping within this Condition A107.C. The permittee shall not exceed the pound per hour (pph) and ton per year (tpy) emission limits in Table A107.A. Where requirements overlap, they shall be used to comply with both Section A206 and Section 107. SSM Flare Cap and Flare Malfunction Cap monitoring, recordkeeping, and reporting shall be kept separate as these have separate limits in Table 107.A

Monitoring:
A gas flowmeter and flow totalizer, equipped with a chart recorder or electronic data logger, shall be installed in each flare line to measure and record the total standard cubic feet (scf) of all gas (process gas, purge gas, pilot gas, and supplemental fuel gas) sent to each flare during each hour and each month.
The permittee shall measure the H_2S content, the total sulfur content, the VOC content, and the heating value (Btu/scf) of the gas sent to the flare for combustion during SSM and malfunction events. H_2S shall be measured on each of the inlet gas types/streams using a stain tube of the appropriate size range or an inline H_2S monitor. The flow meter and flow totalizer shall be operated, calibrated, and maintained as specified by the manufacturer and as necessary to ensure correct and accurate readings. If used, the inline monitor shall be operated, calibrated, and maintained as specified by the manufacturer and as necessary to ensure correct and accurate readings.

Recordkeeping: The following records shall be kept:
1) stain tube and/or inline H_2S measurements
2) annual gas analysis
3) both the hourly and monthly volume (scf) of gas sent to the flare for SSM and malfunction events.

Each event, the permittee shall record and summarize in a table format the following, for each flare.
4) H_2S and the total sulfur content

5) percent VOC content
6) gas heating value (Btu/scf)
7) the maximum hourly gas flow rate (scf/hr) that occurred
8) each hourly gas flow rate (scf/hr) for any hour(s) that exceeded any pph emission limit
9) the total scf of gas sent to each flare
10) the monthly rolling 12-month total of gas sent to each flare (scf/yr)

Each month, the permittee shall record all routine and predictable startups, shutdowns, and scheduled maintenance events and shall also meet the recordkeeping requirements in General Condition B109 of this permit, except the requirement to record the start and end times of SSM events shall not apply.

Records of flowmeter, totalizer, and inline monitor certifications, calibrations, documentation of the manufacturer's recommended calibration / maintenance schedule, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.

Each month, to demonstrate compliance with both the SSM and malfunction emission limits, the permittee shall calculate and summarize the maximum pph emission rate, any pph emission rate exceeding the permitted limits, and the monthly rolling 12-month total ton per year emission rates of NOx, CO, VOC, SO_2, and H_2S for both SSM and malfunction events, using the following information:

11) the H_2S content, total sulfur content, VOC content, and the gas heating value (MMBtu/scf) from the most recent H_2S measurements and gas analyses
12) the emission factors used to calculate NOx and CO
13) the maximum hourly gas flow rate (scf/hr)
14) each hourly gas flow rate (scf/hr) for any hour(s) that exceeded any pph emission limit during the month, including the dates and times of each occurrence
15) the monthly rolling 12-month total of gas sent to each flare (scf/yr)

For each event, the permittee shall record whether the emissions are due to SSM and/or malfunction. If the emissions are due to malfunction, the permittee shall indicate whether the emissions resulting from the event are included in the amount allowed by this permit's malfunction limit or whether the event is reported under 20.2.7 NMAC.

Reporting: The permittee shall report according to Condition B110.

D. SSM Other Combustion and Flaring Emissions

Requirement: The permittee shall demonstrate compliance with the routine predictable startup, shutdown, and maintenance (SSM) for other combustion and flaring of NOx, CO, VOC, SO_2, PM_{10}, $PM_{2.5}$, and H_2S emission limits in Table 107.A for the following permitted SSM activities:

1) SSM H-9851, Emissions during SCR downtime
2) SSM H-3103 (SRU3-TGI), Emissions from SRU3 startup and shutdown
3) SSM FL-HEP-PORT, Temporary, portable flare for natural gas pipeline maintenance
4) SSM H-0473 (SRU2-TGI) , Emissions from SRU2 startup and shutdown

5) SSM Flare Cap, Emissions from venting SSM activity gases to FL-400, FL-401, FL-402, FL-403, or FL-404
6) SSM Misc 2, Low-Emitting Maintenance Activities such as de-inventorying small equipment, clearing piping associated with emission units, and routine maintenance activities such as heat exchanger repair.
7) SSM Tank VCU, Vapor Combustion Unit for tank maintenance

Monitoring: The permittee shall monitor all other combustion and flaring due to routine and predictable startups, shutdowns, and scheduled maintenance events for the equipment/sources listed under Requirements. The permittee shall monitor the date, start and end times, and duration of every SSM combustion or flaring event.

Recordkeeping: The permittee shall record the date, start and end times, and duration of every SSM combustion or flaring event. The NOx, CO, VOC, SO_2, PM_{10}, and H_2S emissions shall be calculated for each event based on the volume of gas sent to the flare and the total sulfur content of the flared gas. Compliance with the hourly emission rates shall be demonstrated by calculating the hourly emission rates for each event and comparing the results to the hourly emission rate at Table 107.A. The annual emission rate shall be calculated as follows:

1) To demonstrate compliance during the first 12-months of monitoring, the permittee shall calculate and sum the monthly cumulative total of NOx, CO, VOC, SO_2, PM_{10}, $PM_{2.5}$, and H_2S emissions; and
2) After the first 12-months of monitoring, the permittee shall calculate and sum the total of NOx, CO, VOC, SO_2, PM_{10}, $PM_{2.5}$, and H_2S emissions on a monthly rolling 12-month basis.
3) The permittee shall maintain all records in accordance with Section B109.

Reporting: The permittee shall report in accordance with Section B110.

E. SSM VOC Emissions (Non-Combustion Sources)

Requirement: The permittee shall comply with the SSM VOC venting emission limits in Table 107.A. The requirement includes maintaining current records of any/all gas/liquids analyses used to verify the VOC emissions.

Monitoring: The permittee shall monitor all VOC emission activities due to routine and predictable startups, shutdowns, and scheduled maintenance events. This shall be accomplished by collecting VOC emission calculation information for the following SSM VOC emission activities:

1) SSM T-0737, Emissions from roof landing
2) SSM Tanks Miscellaneous
3) SSM Pigging

Recordkeeping: The annual SSM VOC emission rate shall be calculated as follows:

1) To demonstrate compliance during the first 12-months of monitoring the permittee shall calculate and sum the monthly cumulative total of VOC emissions; and
2) After the first 12-months of monitoring the permittee shall calculate and sum the total of VOC emissions on a monthly rolling 12-month basis, including the methodology and/or

assumptions used in the calculation(s). The permittee shall keep records to demonstrate compliance in accordance with Condition B109.C, except the requirement in B109.C(2) to record the start and end times of SSM events shall not apply to known quantities of VOC emissions.

3) The permittee shall maintain all records in accordance with Section B109.

Reporting: The permittee shall report in accordance with Section B110.

A108 Facility: Allowable Operations

A. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.

A109 Facility: Reporting Schedules

A. The permittee shall report according to the Specific Conditions and General Conditions of this permit.

B. In addition to the reports required by the applicable NSPS, NESHAP and MACT Subparts (including any voluntary programs referencing NSPS, NESHAP, or MACT Subparts) and by the applicable parts of 20.2 NMAC, the following information shall be submitted to the Department. The reports shall be submitted to the Air Quality Bureau within forty-five (45) days of the end of each calendar quarter. If any reports indicate potential non-compliance with the terms of this permit, the Bureau may impose a more frequent reporting time-frame. The Department shall handle any confidential information in accordance with the provisions of 20.2.1.115 NMAC.

C. Reporting required by the Consent Decree (not an exhaustive listing)

D. No later than forty-five (45) days following the end of an AG Flaring or TG Incident, the permittee shall submit to EPA and the NMED a report that sets forth the items detailed in the Consent Decree. (CD ¶20, CD¶21)

A110 Facility: Fuel and Fuel Sulfur Requirements

A. Fuel, Fuel Sulfur, NSPS J, and NSPS Ja Sulfur Requirements (See Tables 103.E, H, I, and K, Summary of Applicable Requirements)

Requirement:

(1) To comply with NSPS Subpart J, NSPS Subpart Ja, and the PSD BACT requirements in

A106.D(7), the permittee shall install, calibrate and maintain a continuous monitoring system (CMS) to continuously measure and record either the hydrogen sulfide (H_2S) in the refinery fuel gas streams being burned in the Heaters and Boilers or the concentration of sulfur dioxide emissions to the atmosphere.

(2) All stationary combustion equipment shall be fired with NSPS quality fuel gas with a maximum H_2S content of 0.1 grains/dscf (approx. 162 ppmv), based on an hourly rolling 3-hour average.

(3) All stationary combustion equipment shall not combust gas with an annual average H2S content exceeding 0.037 grains/ dscf (approx. 60 ppmv) as a daily rolling 365-day average.

(4) All stationary combustion equipment shall be affected facilities, as defined in NSPS 40 CFR Part 60, Subparts A and J or Ja, if refinery-produced fuel gas is combusted in the heaters and boilers, and shall comply with all applicable requirements of NSPS Subparts A and J or Ja.

(See Table 103.E, Summary of Applicable Requirements)

Monitoring:

(1) The permittee shall install, certify, calibrate, maintain and operate a fuel gas continuous monitoring system (CMS) at the fuel gas mix drum outlet in accordance with the requirements of 40 CFR §§ 60.11, 60.13, and Part 60 Appendix A, and the applicable performance specification of 40 CFR Part 60 Appendices B and F.

(2) The following CMS shall be certified initially and recertified annually:

- D-0019 Low Pressure Fuel Gas H_2S CMS
- D-0770 High Pressure Fuel Gas H_2S CMS

(3) As required by the EPA-approvable alternative monitoring procedure (AMP), CCR off-gas streams that enter the refinery fuel gas system downstream of the H_2S CMS shall be monitored quarterly for H_2S using gas detector tubes or an equivalent method as follows: (a) CCR stabilizer off gas stream, (b) H_2 recycle gas stream, and c) CCR feed stream.

Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subparts A, J, and Ja.

(1) Records of the quantity of the refinery fuel gas and the monthly average heating value of the refinery fuel gas. This is used to demonstrate compliance with lb/MMBtu limits and lb/hr limits shown in Table 106.A and A106.D(13) (permit limits).

(2) Records of repairs, maintenance, and calibrations performed for the instruments that measure flow or concentration for an applicable permit limit shall be kept. Examples include, but are not limited to, CMS, acid gas flow meters, and fuel gas flow meters. (40 CFR 60, Appendix F)

(3) Records shall be kept of Alternative Monitoring Plan (AMP) H_2S analyses of the CCR off-gas streams that enter the refinery fuel gas system downstream of the fuel gas H_2S CMS. (NSPS J or Ja)

Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subparts A, J, and Ja, and Section B110.

A111 Facility: 20.2.61 NMAC Opacity

A. 20.2.61 NMAC Opacity Limit (Combustion Units)

Requirement: Visible emissions from all stationary combustion emission stacks shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

Monitoring:

(1) Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:

(a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.

(b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

(1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:

(a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.

(b) For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

Reporting: The permittee shall report in accordance with Section B110.

B. 20.2.61 NMAC Opacity Limit for Compression Ignition Engines (Units FWG-0600 to FWG-0603, MG-0001 to MG-0004, and SG-0100 to SG-0102)

Requirement: Visible emissions from all emission stacks of all **compression ignition** engines shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.

Monitoring:

(1) For compression ignition engines, calculated at 8760 hours/year (MG-0001, MG-0002, and MG-0003), that are used to generate facility power and/or used for facility processing and **are not** emergency, black start, or limited use engines as defined at 40 CFR 63, Subpart ZZZZ, the permittee shall, at least once every 90 days of operation, measure opacity on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9. The permittee shall also measure opacity on a Unit's emissions stack when any visible emissions are observed during steady state operation.

(2) For emergency, standby, or limited use compression ignition engines that operate on a limited basis (FWG-0600 to FWG-0603, MG-0004, and SG-0100 to SG-0102), the permittee shall, at least once during any year that the unit is operated and no less frequently than once every 5 years regardless of unit operation, measure opacity during steady state operation on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9. The permittee shall also measure opacity on a Unit's emissions stack anytime when visible emissions are observed during steady state operation.

(3) Alternatively for any compression ignition engine, if visible emissions are observed during steady state operation, within 1 hour of seeing visible emissions, the permittee shall shut down the engine and perform maintenance and/or repair to eliminate the visible emissions. Following completion of equipment maintenance and/or repair, the permittee shall conduct visible emission observations following startup in accordance with the following procedures:

(a) Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are observed, no further action is required.

(b) If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

For the purposes of this condition, *Startup mode* is defined as the startup period that is described in the facility's startup plan.

Recordkeeping:

(1) If any visible emissions observations were conducted, the permittee shall keep records in accordance with the requirements of Section B109 and as follows:

(a) For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.

(b) For any opacity observations conducted in accordance with the requirements of EPA

Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4. (c) For each emergency, black start, and limited use compression ignition engine, the permittee shall also record the number of operating hours per year of each Unit and the reason for operating the unit.
Reporting: The permittee shall report in accordance with Section B110.

A112 Facility: 20.2.38 NMAC

A. 20.2.38 NMAC (Tanks subject in Table 103.C)

Requirement: 20.2.38 NMAC (Hydrocarbon Storage Facilities, 11/30/95) applies to the refinery as follows: 1. Section 109 (Tank Storage Associated with Petroleum Production or Processing Facility [Sour Hydrocarbon Liquids]) applies to the loading of hydrocarbons containing H_2S. 2. Section 110 (Tank Battery or Storage Facility - Within Municipality [Sour Hydrocarbon Liquids]) applies to certain tanks storing sour hydrocarbon liquids whose vapors contain $\geq$24 ppm H_2S. 3. Section 113 (New Tank Battery and the Pecos-Permian Interstate Air Quality Control Region [Sour Hydrocarbon Liquids]) applies to certain tanks storing sour hydrocarbon liquids whose vapors contain $\geq$24 ppm H_2S.
Monitoring: 1. Demonstrated through Recordkeeping. 2. Demonstrated through NSPS K, Ka, Kb, and MACT CC floating roof seal inspection. 3. Demonstrated through NSPS K, Ka, Kb, and MACT CC floating roof seal inspection.
Recordkeeping: 1. Records of Tank design showing inlet piping connections. 2. No additional requirements other than applicable requirements of NSPS and MACT. 3. No additional requirements other than applicable requirements of NSPS and MACT.
Reporting: The permittee shall report in accordance with Section B110.

A113 Facility: 40 CFR 63, MACT Subpart UUU

A. 40 CFR 63, Subpart UUU, Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units and Sulfur Recovery Units (for FCC, FUG-70-CCR, SRUs 2, and 3)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 63, Subpart UUU, National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, for all affected sources shown in Tables 103.H and 103.I attached. (§63.1560 and §63.1570).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 63, Subpart UUU.

Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63, Subpart UUU.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63, Subpart UUU.

A114 40 CFR 61 Subpart FF, National Emission Standards for Benzene Waste Operations

A. 40 CFR 61, Subpart FF, National Emission Standards for Benzene Waste Operations (Units subject in Tables 103.C (tanks) and 103.G (wastewater)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 61, Subpart FF, National Emission Standard for Benzene Waste Operations for the affected sources in Tables 103.C and 103.G.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 61, Subpart FF.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 61.356.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 61.357.

A115 40 CFR 60, Subpart NNN

A. 40 CFR 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations (Applies to W-623 depropanizer column of the Alkylation Unit)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subpart NNN (§60.660, §60.662).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart NNN (§60.663, §60.664).
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart NNN (§60.665).
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart NNN (§60.665).

A116 40 CFR 60, Subpart RRR

A. 40 CFR 60, Subpart RRR, Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes (Applies to Alky Reactor as part of Alkylation Unit)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subpart RRR (§60.700, §60.702).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart RRR (§60.703, §60.704).
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart RRR (§60.705).
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart RRR (§60.705).

EQUIPMENT SPECIFIC REQUIREMENTS

OIL AND GAS INDUSTRY

A200 Oil and Gas Industry

A. This section has common equipment related to most Oil and Gas Operations.

A201 Engines

A. Maintenance and Repair Monitoring (Units FWG-0600 to FWG-0603, MG-0001 to MG-0004, and SG-0100 to SG-0102)

Requirement: These units are subject to Title V since they are subject to NSPS and/or MACT requirements. No emission limits were established for units operating no more than 500 hours per year (except for Units MG-0001, MG-0002, and MG-0003). The permittee shall ensure these units are properly maintained and repaired.
Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur for the following events: (1) Routine maintenance that takes a unit out of service for more than two hours during any twenty-four hour period.

(2) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period.
Recordkeeping: The permittee shall maintain records in accordance with Section B109, including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule.
Reporting: The permittee shall report in accordance with Section B110.

B. 40 CFR 63, Subpart ZZZZ (Units FWG-0600 to FWG-0603, MG-0001 to MG-0004, and SG-0100 to SG-0102) (Units subject in Table 103.J)

Requirement: The units listed as subject in Table 103.J are subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ.
Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.
Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.

C. 40 CFR 60, Subpart IIII (Diesel Engines subject in Table 103.J)

Requirement: The units listed as subject in Table 103.J are subject to 40 CFR 60, Subparts A and IIII and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart IIII.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4211.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214.

D. Hours of Operation (Units FWG-0600 to FWG-0603, MG-0004, and SG-0100 to SG-0102)

Requirement: To ensure compliance with 20.2.72.202(B)(3) NMAC, the hours of operation for emergency (backup) generators SG-0100 to SG-0102 shall be less than 500 hours per year, per unit, on a monthly-rolling 12-month total basis; and for fire water pump engines FWG-0600 to FWG-0603, and MG-0004 shall be less than 100 hours per year, per unit, on a monthly-rolling 12-month total basis.
Monitoring: The permittee shall monitor the operating hours of the engines either manually or using a non-resettable hour meter.

Recordkeeping: Each month, the permittee shall record the monthly-rolling 12-month total operating hours of each unit. The permitted shall keep records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Condition B110.

A202 Glycol Dehydrators – Not Required

A203 Tanks

A. NSPS Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 (Tanks subject in Table 103.C)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subparts A and K for the affected sources in Table 103.C.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart K.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart K.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart K.

B. NSPS Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 (Tanks subject in Table 103.C)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subpart Ka for the affected sources in Table 103.C.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart Ka.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart Ka.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart Ka.

C. NSPS Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After January 23, 1984 (Tanks subject in Table 103.C)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subpart Kb for the affected sources in Table 103.C.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart Kb.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart Kb.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart Kb.

D. MACT Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (Tanks subject in Table 103.C)

Requirement: The permittee shall comply with all applicable requirements of MACT Subpart CC, "National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries" for all affected sources shown in Tables 103B, C, D, G attached. (63.640).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 63, Subpart CC.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63.655.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63.655.

E. Tank Throughput, Temperature, and VOC and H_2S Limits (Units shown in Tables 106.B and 106.C)

Requirement: Compliance with the allowable throughput limits and emission limits in Tables 106.D and 106.E shall be demonstrated by not exceeding the monthly rolling 12-month total throughput to the unit(s) of gallons per year (barrels/year) shown in Table 106.D and not exceeding the allowable vapor pressure listed in Tables 106.B and 106.C.
Monitoring: The permittee shall monitor the monthly total throughput, maximum temperature once per month and the vapor pressure of each tank.
Recordkeeping: The permittee shall record the monthly total throughput of liquids and the vapor pressure of each tank. Each month, during the first 12-months of monitoring, the permittee shall record the cumulative total liquid throughput and vapor pressure and after the first 12-months of monitoring, the permittee shall calculate and record a monthly rolling 12-month total liquid throughput and the vapor pressure of each tank. The permittee has calculated the VOCs and H_2S annually based on the 12-month total. Tank breathing and working emissions were calculated using the USEPA AP-42 Section 7.1 calculation methods. Emission rates computed using the same parameters, but with a different Department approved algorithm that exceed these values will not be deemed non-compliance with this permit. Records shall also be maintained in accordance with Section B109.

Reporting: The permittee shall report in accordance with Section B110.

A204 Heaters/Boilers

A. Operational Inspections of Boilers and/or Heaters (All heaters/boilers in Tables 103.E and 104.A)

Requirement:

(1) Compliance with the allowable emission limits in Section A106 shall be demonstrated by performing annual inspections to ensure proper operation of each Unit.
(2) At a minimum, the operational inspections shall meet those recommended by the manufacturer, or shall meet the facility specific procedure submitted to the Department.
(3) If the permittee is using a facility specific procedure it shall submit an electronic version of the procedure to the Department's Permit Section Manager within 90 days of implementing the procedure. If the plan cannot be submitted within 90 days, the permittee shall obtain written approval to extend the deadline from the Department's Permit Section, either by regular or electronic mail. The permittee shall provide additional information or make changes to the plan as requested by the Department.
(4) The permittee shall make changes or improvements to the inspection procedure based on experience with the unit and/or new information provided by the manufacturer. This updated procedure shall be made available to the Department upon request.

Monitoring:

(1) Inspections shall be completed at least once per year or at the frequency recommended by the manufacturer.
(2) At a minimum, inspections shall include the following:
    (a) checking indicators to verify that the optimal amount of excess combustion air is introduced into the boiler combustion process such as a blue colored, steady flame;
    (b) inspections of the unit(s) components and housing for cracks or worn parts.

Recordkeeping:

(1) The permittee shall maintain records of operational inspections, including the indicators used to verify optimal excess combustion air, a description of the indicators, the unit component and housing inspections, and any adjustments needed to ensure optimal operation of the unit.
(2) The permittee shall also keep records of the manufacturer's recommended or the permittee's facility specific operational inspection procedure and shall keep records of the percent of excess combustion air required for optimal performance.
(3) The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall report in accordance with Section B110.

B. Periodic Emissions Tests (Units Heaters H-0019, H-0020, H-0362, H-0363, H-0364, H-2421, H-3402, H-3403, and H-5401)

Requirement: Compliance with allowable emission limits in Table 106.A shall be demonstrated by performing periodic emissions tests.
Monitoring: The permittee shall conduct annual periodic portable analyzer emission tests or EPA Reference Method Tests for NO_x and CO. Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits. Section B108 General Monitoring Requirements apply to this condition. The permittee shall meet the testing requirements in Section B111.
Recordkeeping: Records of periodic emission tests shall include the flow rate and the stack gas exhaust temperature. If a combustion analyzer is used to measure NO_x, CO, and/or excess air in the flue gas, records shall be kept of the make and model of the instrument and instrument calibration data. If an ORSAT apparatus or other gas absorption analyzer is used, the permittee shall record all calibration results. Records shall be kept of all raw data used to determine flue gas flow and of all calculations used to determine flow rates and emission rates. The permittee shall maintain records in accordance with Section B109, B110, and B111.
Reporting: The permittee shall summarize in tabular form the results of the initial or subsequent periodic emissions tests for NO_x and CO, specifying the mass emissions rates in pounds per hour. The table shall include the average concentration of all relevant pollutant species. The permittee shall report in accordance with Section B109, B110, and B111.

C. Summary of Compliance Methods for Heaters and Boilers listed for Table 106.A, including 20.2.33 NMAC subject units (Boilers and Heaters in Tables 103.E and 104.A)

Requirement: (1) Demonstrate compliance with Table 106.A Allowable Emissions. (2) 20.2.33 NMAC (Gas Burning Equipment – Nitrogen Dioxide, 10/31/02) applies to existing and new gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year. It applies to process heaters identified in Tables 103.E and 104.A. These units shall be equipped with burners emitting less than 0.2 lb NO_x per MM Btu. Compliance with 20.2.33 NMAC is demonstrated by compliance with the NO_x lb per MM Btu limits in Table A106.A.
Monitoring: (1) The permittee shall monitor the fuel usage of all boilers and heaters. The fuel usage shall be monitored for specific heaters and boilers subject to 20.2.33 NMAC.

(2) For specific heaters and boilers subject to 20.2.33 NMAC, the permittee shall collect and analyze samples of the refinery fuel gas at least once per week. The refinery fuel gas analysis shall include the composition of the refinery fuel gas, the gross heating value, and the net heating value.

(3) See Condition A110.A for H_2S monitoring requirements.

(4) All process heaters and boilers shall fire only refinery gas in accordance with Application, Section 2, Table 2-J.

(5) For those combustion sources required to have a continuous monitoring system (CMS) (listed in (a) below), the permittee shall install, certify, calibrate, maintain, and operate the CMS for each required pollutant in accordance with the applicable requirements of 40 CFR 60 or 63. The hourly average CMS data, the refinery fuel gas usage data, and the refinery fuel gas composition data shall be used to estimate the actual emission rates.

(a) The following CMS shall be recertified annually:

- Boiler B-0007 NOx and O_2 CMS
- Boiler B-0008 NOx and O_2 CMS
- Boiler B-0009 NOx and O_2 CMS
- H-9851 Nox O_2 CMS
- H-2501 Nox O_2 CMS

(6) For those combustion sources required to conduct periodic stack exhaust testing as stated in Condition A204.B, the test reports shall be used to demonstrate compliance with the NOx, CO, and VOC limits in Table 106.A.

(7) For those units and pollutants that are not required to have a CMS or a periodic stack test, (Units H-0009, H-0011, H-0018, H-0028, H-0030, H-0040, H-0312, H-0352, H-0353, H-0354, H-0355, H-0421, H-0464, H-0600, H-0601, H-8801, H-8802, and H-3101) the permit application emission factor, the fuel usage, and the refinery fuel gas analysis shall be used to calculate the emission rates of NOx, CO, VOC, and PM.

Recordkeeping: The permittee shall maintain the following records in accordance with Section B109:

(1) By March 31, the annual fuel usage for all boilers and heaters for the previous calendar year.

(2) By March 31, the average fuel composition and heating value for all boilers and heaters for the previous calendar year.

(3) For those units required to have a CMS (B-0007, B-0008, B-0009, H-9851 and H-2501), the CMS hourly average data.

(4) For those units required to conduct periodic stack exhaust testing, the periodic test report.

(5) For all boilers and heaters, a summary spreadsheet shall be maintained comparing the actual annual emissions with the allowable emission limits expressed in tons per year and

lb/MMBtu using the appropriate method of compliance demonstration. This spreadsheet shall be updated by March 31 of each year for the previous calendar year.
Reporting: The permittee shall report in accordance with Sections B110.

D. Consent Decree NOx Emission Limits for Boilers B-0007 and B-0008

Requirement: (1) In accordance with the Consent Decree lodged December 20, 2001, NOx emissions from boilers B-0007 (no later than December 31, 2002) and B-0008 (no later than December 31, 2003) shall be less than 0.06 lb/MMBtu during any hourly rolling 3-hour period. Demonstration of compliance with the NOx limit for B-0007 and B-0008 shall be established by averaging the CMS Data over any 3-hour period and comparing the average concentration to the parametric limit of ≤ 42.1 ppm NOx, corrected to 6.1% O_2 as determined by the CMS. (CD¶16.D) This also satisfies the requirement in 20.2.33.108.A NMAC that NOx emissions shall not exceed 0.2 lb/MMBtu. (2) The permittee is authorized to operate the boilers (B-0007 and B-0008) simultaneously as needed.
Monitoring: For the Controlled Boilers (B-0007, B-0008) as listed in the Consent Decree, continuous compliance with their respective NOx permit emissions limits shall be demonstrated by monitoring as follows: (CD¶16.C) (1) For boilers (B-0007 and B-0008) with a heat input capacity greater than 150 MMBtu/hr of HHV, the permittee shall install or continue to operate CMS to measure NOx and O_2. Each CMS shall be installed, certified, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.11, 60.13, and Part 60 Appendix A and the applicable performance specification test of 40 CFR Part 60 Appendices B and F. These CMS shall be used to demonstrate compliance with emission limits. The permittee shall make CMS and process data available to the applicable Federal and State Agencies upon demand as soon as practicable; (CD¶16.C.i)
Recordkeeping: The permittee shall keep records of the CMS recertification's monitored in Condition A204.B, Summary of Compliance.
Reporting: The permittee shall report in accordance with Section B110.

E. NOx Monitoring and Testing for Controlled Heaters Subject to the Consent Decree (Units H-0020, H-0352, H-0353, H-0354, H-0600, and H-0601)

Requirement: For the Controlled Heaters as listed in the Consent Decree, continuous compliance with all NOx emissions limits shall be demonstrated by monitoring as follows. (CD¶16.C)
Monitoring: (1) For heaters with a heat input capacity of equal to or less than 150 MMBtu/hr (HHV) but greater than 100 MMBtu/hr (HHV), the permittee shall

(a) install or continue to operate CMS to measure NOx and O_2 by no later than the date of the installation of the applicable NOx Control Technology on the heater or boiler; or

(b) submit for EPA approval, by no later than 60 days after the date of installation of the applicable NOx Control Technology on the heater or boiler, a proposal for monitoring based on operating parameters, including but not limited to, firebox temperature, air preheat temperature, heat input rate, and combustion O_2.

The permittee shall evaluate the necessity of using firebox or bridgewall temperatures and additional operating parameters and agrees to use such parameters as a means of monitoring performance where the permittee and EPA mutually-agree to their effectiveness. (CD¶16.C.ii).

As of January 23, 2014 (notarized date of application), there are no heaters or boilers at the HF Sinclair Navajo (Artesia) Refinery with a capacity of equal to or less than 150 MMBtu/hr (HHV) but greater than 100 MMBtu/hr (HHV) subject to Monitoring requirement (1).

(2) For heaters with a heat input capacity of equal to or less than 100 MMBtu/hr of HHV, the permittee shall conduct an initial performance tests for NOx. The results of these tests shall be reported based upon an average of three (3) one-hour testing periods and shall be used to develop representative operating parameters for each unit, which will be used as indicators of compliance. (CD¶16.C.iii). This condition applies to the following heaters:

- Heaters H-0352, H-0353, and H-0354
- Heater H-0020
- Heaters H-0600 and H-0601

The permittee has completed all of the initial performance tests.

(3) For heater H-0601 compliance shall be demonstrated by continuously monitoring stack oxygen (O_2) to maintain a 3-hour average below 6.0 volume%. As a further check of compliance, the permittee shall monitor stack NOx at least twice a month using a portable analyzer to assure that the measured NOx value does not exceed the compliance threshold of 38 ppmv NOx. (CD¶16.C.iii)

Recordkeeping: The permittee shall maintain records in accordance with Section B109, B110, and B111.

(1) The permittee shall keep records of the Fuel firing rates and Sulfur limits monitored for Condition A110.A.

(2) The permittee shall keep records of the initial performance tests.

(3) The permittee shall keep records of the stack oxygen monitoring and the portable analyzer tests.

Reporting: The permittee shall report in accordance with Section B110. Condition B.111.D(7) does not apply to portable analyzer tests.

F. NOx Monitoring and Testing for Heaters and Boilers permitted after the Consent Decree (Units Heaters H-0019, H-0362, H-0363, H-0364, H-2421, H-3402, H-2501, H-8801/8802, H-9851, and B-0009)

Requirement: For the Heaters permitted after the Consent Decree, continuous compliance with their respective NOx permit emissions limits in Table 106.A shall be demonstrated by monitoring as follows.

Monitoring:

(1) For heaters with a heat input capacity greater than 150 MMBtu/hr (LHV Basis), the permittee shall install and operate CMS to measure NOx and O_2 by the startup date of each heater or boiler. Each CMS shall be installed, certified, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.11, 60.13, and Part 60 Appendix A and the applicable performance specifications of 40 CFR Part 60 Appendices B and F. These CMS shall be used to demonstrate compliance with emission limits. The permittee shall make CMS and process data available to the applicable Federal and State Agencies upon demand as soon as practicable. Condition A204.F(1) includes heater H-9851 and boiler B-0009.

(2) For heaters with a heat input capacity of equal to or less than 150 MMBtu/hr (LHV) but greater than 100 MMBtu/hr (LHV), the permittee shall:

(a) install and operate CMS to measure NOx and O_2 by the startup date of each heater; or

(b) submit to the Permit Program Manager for NMED approval, by no later than 90 days after the startup date of each heater, a proposal for monitoring based on operating parameters. Operating parameters to consider include, but are not limited to, firebox temperature, air pre-heat temperature, heat input rate, and combustion O_2. The permittee agrees to use such parameters as a means of monitoring performance.

Condition A204.F(2) applies to heaters H-2501 and H-8801/8802

(3) For heaters with a heat input capacity of equal to or less than 100 MMBtu/hr (LHV basis), the permittee shall conduct an initial performance test by no later than 180 days after the startup date. The results of this test shall be reported based upon an average of three (3) one-hour testing periods and shall be used to develop representative operating parameters for each unit, which will be used as indicators of compliance. This condition applies to the following heaters:

- Heaters H-0362, H-0363, H-0364, and H-2421
- Heater H-0019
- Heaters H-3402 (AMP approved by EPA, see (4)), initial performance test completed on July 10, 2013
- Heater H-3403, initial performance test completed on April 30, 2013

(4) US EPA has approved an Alternative Monitoring Plan (AMP) for Unit H-3402 for utilizing the oxygen monitor on the H-3402 Unit 34 Hydrocracker Reboiler 1 as a parametric means for demonstrating compliance with NSPS Ja, NOx monitoring via a CMS. In accordance with the AMP, the permittee shall accomplish the following:

(a) Install flow indication on the fuel line to provide historical data of the fuel to the Mild Hydrocracker (Unit 34) by January 1st, 2015.

(b) Monitor the process historical data of the HEP purchased natural gas pressure, and the high

pressure fuel balance drum (D-0770).

(c) Upgrade the existing the Mild Hydrocracker (Unit 34) Reboiler Heater (H-3402) oxygen monitor to perform daily calibrations as required in 40 CFR60.13(d)(1). (Note that the sample placement does not conform to CMS requirements for process reasons).

(d) Conduct biennial performance tests according to the requirements in 40 CFR 60.104a(i).

(e) Establish a maximum or curve excess O2 operating limit – (MOPV) as required under 40 CFR60.107a(c)(6) utilizing the existing monitor.

(f) Include Reboiler Heater (H-3402) hours of refinery fuel gas usage and any deviations during such time as required by 40 CFR 60.7 for periodic reporting.

Recordkeeping: The permittee shall maintain records in accordance with Section B109, B110, and B111.

(1) The permittee shall keep records of the fuel firing rates and sulfur limits monitored for Condition A110.A.

(2) The permittee shall keep records of the CMS recertification's monitored in Condition A204.B, Summary of Compliance.

(3) The permittee shall keep records of the performance tests.

(4) The permittee shall keep records of the implementation of the AMP and all required monitoring specified in the AMP.

Reporting: The permittee shall report in accordance with Section B110.

G. NSPS Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (Boilers and Heaters subject in Table 103.E)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 60, Subparts A and Db (NOx at §60.44b, SO_2 at §60.42b, and PM at §60.43b) for the affected sources in Table 103.E.

Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60.48b, Subpart Db.

Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.49b, Subpart Db.

Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60.49b, Subpart Db.

Compliance Test: The permittee shall comply with the methods and procedures stipulated in 40 CFR 60, Section §60.45b and §60.46b.

H. NSPS Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (Boilers and Heaters subject in Table 103.E)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 60, Subparts A and Dc (NOx at §60.44c, SO_2 at §60.42c, and PM at §60.43c) for the affected sources

in Table 103.E.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60.47c, Subpart Dc.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.48c, Subpart Dc.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60.48c, Subpart Dc.
Compliance Test: The permittee shall comply with the methods and procedures stipulated in 40 CFR 60, Section §60.44c and §60.45c.

I. NSPS Subpart J, Standards of Performance for Petroleum Refineries (Boilers and Heaters subject in Table 103.E)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 60, Subparts A and J for the affected sources in Table 103.E.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart J.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart J.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart J.

J. NSPS Subpart Ja, Standards of Performance for Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After May 14, 2007 (Boilers and Heaters subject in Table 103.E)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 60, Subparts A and Ja for the affected sources in Table 103.E.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart Ja.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart Ja.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart Ja.

K. NOx Limit, Continuous Monitoring System (CMS) (Unit B-0009)

Requirement: The permittee shall comply with the allowable emission limits in Table 106.A that represent NOx limits.
Monitoring: (1) The Permittee shall comply with the CMS monitoring as detailed in Condition A204.F.

(2) The permittee shall conduct an EPA Method test within six (6) months of startup using EPA reference test methods in 40 CFR 60 for NOx and O_2 and CO_2. Data from the CMS RATA testing may be used to satisfy this testing requirement.
Recordkeeping: (1) The permittee shall keep records of the CMS initial calibration and recertification monitored in Condition A204.B, Summary of Compliance. (2) Records of EPA Methods tests shall be maintained for the Boiler.
Reporting: (1) The permittee shall report in accordance with Section B110, to include the CMS initial calibration and recertification. (2) The permittee shall summarize in tabular form the results of the EPA Methods tests for NOx and O_2 and CO_2**,** specifying the emissions rates in pounds per hour and lb/MMBtu. The table shall include the average concentration of all relevant pollutant species.

L. MACT Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters (Boilers and Heaters subject in Table 103.E)

Requirement: The units are subject to 40 CFR 63, Subpart DDDDD and the permittee shall comply with the applicable requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Monitoring: The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63, Subpart A and Subpart DDDDD.

M. EPA Methods Test (Unit B-0009)

Requirement: Compliance with CO Limit and allowable emission limits in Table 106.A shall be demonstrated by emissions tests ensuring the unit is operating correctly and within desired parameters.
Monitoring: The permittee shall conduct an EPA Method test no later than 180 days after startup using EPA reference test methods in 40 CFR 60. Emission testing is required for CO. Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.
Recordkeeping: Records of EPA Methods tests shall be maintained for the Boiler.
Reporting: The permittee shall report in accordance with the requirements of Section B111.D and summarize in tabular form the results of the EPA Methods test for CO**,** specifying the

emissions rates in pounds per hour. The table shall include the average concentration of all relevant pollutant species.

N. Periodic Emissions Tests (Unit B-0009, CO Limit)

Requirement: Compliance with the CO Limit and allowable emission limits in Table 106.A shall be demonstrated by performing periodic emissions tests.

Monitoring: The permittee shall conduct periodic portable analyzer emission tests or EPA Reference Method Tests for CO at the intervals in the following schedule:

First Test -- in accordance with the schedule in Section B111.A(2).
Second Test -- six (6) months after the first test is completed.
All subsequent testing shall be done annually.

Section B108 General Monitoring Requirements apply to this condition.

The permittee shall meet the testing requirements in Section B111.

Recordkeeping: Records of periodic emission tests shall include the boiler fuel flow rate and the stack gas exhaust temperature. If a combustion analyzer is used to measure CO, and/or excess air in the flue gas, records shall be kept of the make and model of the instrument and instrument calibration data. If an ORSAT apparatus or other gas absorption analyzer is used, the permittee shall record all calibration results.

Records shall be kept of all raw data used to determine flue gas flow and of all calculations used to determine flow rates and emission rates. The permittee shall maintain records in accordance with Section B109, B110, and B111.

Reporting: The permittee shall summarize in tabular form the results of the initial or subsequent periodic emissions tests for CO, specifying the mass emissions rates in pounds per hour. The table shall include the average concentration of all relevant pollutant species. The permittee shall report in accordance with Section B109, B110, and B111.

A205 Turbines – Not Required

A206 Flares

A. Gas Flow Monitoring and Gas Analysis (Units FL-0400, FL-0401, FL-0402, FL-0403, and FL-0404)

Requirement: Compliance with flare allowable emission limits in Table 106.A and in Table 107.A, shall be demonstrated by completing the monitoring, recordkeeping, and reporting required by this condition, Condition A206.A, as well as Conditions A206.B, A206.C, A206.D, A206.E, and Condition A107.C (where condition requirements overlap, monitoring requirements shall be applied to the other flare conditions to demonstrate compliance). All flow meters and inline chemical composition analyzers shall be installed, calibrated, operated and

maintained in accordance with the requirements of Condition B108.H.

Monitoring:

(1) Gas Flow:

(a) One or more gas flowmeters equipped with a chart recorder or data logger (electronic storage) shall be installed to continuously monitor the flow (scf) of gas to each flare. Gas flow stream monitoring shall include all gas streams, including process gas sent to each flare, assist gas as used, pilot/purge gas, and SSM event gases. SSM flows shall be monitored and reported separately from process flows (to clearly distinguish Table 106.A emissions from Table 107.A emissions).

(b) Pilot, purge, and assist gas, if applicable, shall be monitored using a gas flowmeter under paragraph (a) or determined using manufacturer's specifications or engineering estimates.

(2) Gas Analysis:

(a) Once per calendar year the permittee shall perform a gas analysis, including measurement of the H_2S content, total sulfur content, VOC content, and heating value (BTU/scf) of gas sent to each of the flares. Gas analyses shall be separated by a minimum of six (6) months. Gas analyses as may be required by other conditions in this permit can be used if they also meet the requirements of this condition.

(b) Alternatively, for H_2S only, in lieu of an annual analysis, H_2S may be measured quarterly using a stain tube(s) of the appropriate size range or with an inline chemical composition analyzer.

(3) Calibration: In addition to the requirements of Condition B108.H, flowmeters and inline chemical composition analyzers shall be operated, calibrated, and maintained as specified by the site-specific operations and maintenance plan, if applicable.

Recordkeeping: The following records shall be maintained in accordance with Condition B109.

(1) Gas Flow:

(a) Records of continuous flowmeter measurements and the hourly flow rate in scf/hr calculated by averaging *a minimum* of four (4) equally spaced readings for each hour.

(b) Manufacturer's specifications or engineering estimates used for pilot, purge, and assist (if applicable) gas flow rates.

(2) Gas Analysis: All sample documentation received from the laboratory or testing service company, including H_2S content, the total sulfur content, the VOC content, and the heating value (BTU/scf), analysis method utilized, and sample chain of custody. If stain tubes are used for measuring H_2S content, records of the results, including size range of stain tubes used, the date of the test, and the name of the person conducting the test.

(3) Calibration: Records of all flowmeter and inline monitor certifications, calibrations, data capture calculations and documentation as specified by Condition B108.H, as well as any breakdowns, reasons for the breakdown, and corrective actions. The permittee shall also maintain a copy of the manufacturer specifications for operation and calibration or the site-specific operations and maintenance plan for flowmeters and inline

monitors.
Reporting: The permittee shall report in accordance with Condition B110.

B. Flare Emissions Calculation (Units FL-0400, FL-0401, FL-0402, FL-0403, and FL-0404)

Requirement: Compliance with the flare allowable emission limits in Table 106.A shall be demonstrated by operating the flare in accordance with the requirements, monitoring, and recordkeeping of Condition A206.A and completing emissions calculations as specified in this condition.

Monitoring: No monitoring is required. Compliance is demonstrated through records.

Recordkeeping: The permittee shall maintain records of all calculations and parameters used to determine emission rates in spreadsheet format and in accordance with Condition B109.

(1) Hourly Emissions Calculations: The permittee shall calculate the pounds per hour (pph) NOx, CO, VOC, SO_2, and H_2S emission rates using these parameters:

(a) the calculated average hourly flow rate of all gas combusted by the flare, including pilot, purge, and assist gas, if applicable, from Condition A206.A;

(b) gas analysis, including H_2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas from Condition A206.A;

(c) the emission factors represented in the permit application and approved by the Department, for NOx and CO emission rates; and

(d) VOC and H_2S emission rates calculated using the destruction efficiency represented in the permit application and approved by the Department.

(2) Annual Emissions Calculations: The permittee shall calculate the total ton per year (tpy) emission rates as a daily rolling 12-month total, using the totaled pph emission rates for each hour of the day:

(a) During the first 12 months of this condition taking effect, the permittee shall record the total tons of NOx, CO, VOC, SO_2, and H_2S emissions.

(b) After the first 12 months of this condition taking effect, the permittee shall record the daily rolling 12-month total tpy NOx, CO, VOC, SO_2, and H_2S emissions.

Reporting: The permittee shall report in accordance with Section B110.

C. FL-0400 and FL-0403

Requirement:

(1) An alarm system in good working order shall be connected to Flare FL-0403 which will signal non-combustion of the gas.

(2) The acid gas flow meter for flare FL-0400 and/or FL-0403 shall be operated and calibrated at a frequency and by the procedure specified by the manufacturer. A chart recorder or data logger (electronic storage) shall continuously record the amount of gas measured by the flow

meter.
Monitoring: (1) The fuel gas required to provide supplemental heat to either Flare FL-0400 or FL-0403 as required under A105.B shall be monitored during flaring by a flow meter. (2) The flow meter shall be operated continuously 24 hours per day, 365 days per year except for periods of flow meter maintenance or repair. (3) The flow meter and flow totalizer shall be operated, calibrated, and maintained as specified by the manufacturer and as necessary to ensure correct and accurate readings. If used, the inline monitor shall be operated, calibrated, and maintained as specified by the manufacturer and as necessary to ensure correct and accurate readings. The upper range of the flow meter shall be sufficient to record the highest expected flow rate of fuel gas sent to flare. (4) The reading of this flow meter and the flow meter to measure acid gas flow as required under Condition A105.B shall be used to determine compliance with emission limits at A106.C.
Recordkeeping: (1) Records of all periods of operation during which the flare pilot flame is absent as included in the MACT subpart CC semi-annual reports. (2) Records of the quantity of supplemental fuel used during each acid gas flaring incident to provide supplemental heat to flare FL-0400 and/or flare FL-0403. (3) The permittee shall maintain records from the flow meter of the amount of gas sent to the flare.
Reporting: The permittee shall report in accordance with Section B110.

D. NSPS Subpart Ja (Flares listed in Table 103.K)

Requirement: The permittee shall comply with all applicable requirements of NSPS Subpart Ja.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart Ja.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60, Subpart Ja.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart Ja.

E. Flare Good Combustion Practices (GCP) Operating Requirements and BACT Requirements, 40 CFR 60, Subparts A and Ja, and 20.2.61 NMAC (Units FL-0400, FL-0401, FL-0402, FL-0403, and FL-0404)

Requirement: Compliance with the flare BACT controls in Table 105.A, the allowable emission limits in Table 106.A, BACT limits in Section 106.D(14), and emissions limits in Table 107.A shall be demonstrated by: Each flare complying with the operational requirements (including but not limited to flame

presence and no visible emissions) specified by the general control device requirements for refineries at 40 CFR 60, Subpart Ja. Compliance with the operating requirements of 40 CFR 60 demonstrates compliance with the opacity limits required by 20.2.61 NMAC.
Monitoring: The permittee shall monitor flare operation of each flare in accordance the applicable requirements at 40 CFR 60, Subpart Ja.
Recordkeeping: The permittee shall maintain records of flare operation for each flare accordance with the applicable requirements of 40 CFR 60, Subpart Ja, and with the requirements of Section B109.
Reporting: The permittee shall report in accordance with the requirements of Section B110.

A207 Sulfur Recovery Plant (SRP), Sulfur Recovery Units (SRU), and Tail Gas Incinerators (TGI)

A. Consent Decree Requirements for SRP and TGI

Requirement: In addition to the applicable requirements of NSPS, 40 CFR 60, Subparts J and Ja, the permittee shall accomplish the following: 1. The permittee shall route all Sulfur Recovery Plant (SRP) sulfur pit emissions from the SRP so that sulfur pit emissions to the atmosphere either are eliminated or are included and monitored as part of the applicable Sulfur Recovery Plant's tail gas emissions that meet the NSPS Subpart J or Ja limit for SO_2. (CD ¶18.C.ii) 2. The SRP and TGI (and any supplemental control devices) shall be operated and maintained, to the extent practicable, in accordance with the obligation to minimize SRP emissions through implementation of good air pollution control practices required by 40 CFR § 60.11(d), at all times, including periods of start-up, shutdown, and malfunction. (CD ¶18.C.iii)
Monitoring: The permittee shall comply with the applicable monitoring requirements of NSPS Subpart J or Ja.
Recordkeeping: The permittee shall maintain records in accordance with the applicable requirements of NSPS Subparts J and Ja.
Reporting: The permittee shall report in accordance with the applicable requirements of NSPS Subparts J and Ja.

B. The following BACT SO_2 work practices and equipment shall apply to the SRP (SRU3/TGTU3/TGI3):

(1) Maintain at least 98% SRP on-stream operations. This includes curtailing refinery operations as necessary when SRU capacity is limited during planned startup, shutdown, and maintenance events.

(2) Maintain adequate SRP excess capacity to reduce the frequency and quantity of refinery excess SO_2 emissions. After the refinery expansion project proposed

units are constructed, the proposed SRU3 will provide at least 25% excess capacity.

(3) Continue to maintain and use a sulfur shedding plan to prevent or reduce acid gas flaring events from refinery upsets. An acid gas flaring event is defined as excess SO_2 emissions greater than 500 pounds in a 24-hour period. The plan shall state specific actions that may be taken to reduce or prevent acid gas flaring. The actions taken during any event will be based on the refinery operators' discretion, considering safety and other factors related to prudent operation. This plan is subject to review by NMED or EPA and shall be amended upon written request by NMED or EPA. The sulfur shedding plan may include, but is not limited to the following options:

(a) Store sour water to reduce acid gas generation from the sour water strippers,

(b) Reduce the operating rate of one or more amine strippers to lower the acid gas generation rate,

(c) Reduce one or more hydrotreating unit throughput rates to lower acid gas generation rate.

(4) Use hydrogen, when available, as SRU fuel during startup and hot standby to minimize carbon deposits on the SRU catalysts.

(5) During startup and shutdown and to the extent practicable, process vessels shall be depressurized into other process equipment rather than venting to a flare. The permittee shall document instances when this is not practicable.

C. Sulfur Recovery Units (SRU2, and SRU3)

Requirement:

The permittee shall demonstrate compliance with the H_2S, SO_2, lb/hr, tpy emission limits by completing the following requirements, monitoring, recordkeeping and reporting:

(1) A flow meter shall be installed, operated, calibrated, and maintained on the sour water stripper streams that go to the SRUs.

(2) An SO_2 CEMS and flow meter shall be installed on the SRU2 and SRU3 incinerator stacks. In addition, these units shall be equipped with instruments to measure and record sulfur concentration and flow rates of the gas streams into SRU2 and SRU3.

The CEMS, flow meters, and data loggers shall be calibrated and maintained. In addition, the calibration of the SO_2 CEMS shall follow the quality assurance and quality control procedures in 40 CFR 60 Subpart J or Ja and Appendix F.

(3) The minimum acceptable level of data capture for all instruments measuring flow of sulfur streams into the SRU2 and SRU3, as well as the CEMS and flow meters on the incinerator stacks, shall be at least 90% for each semi-annual period. The 10% lost data will include all periods when the concentration and corresponding flow are not being measured as a result of calibrations or breakdowns.

Monitoring: The gas stream feeding SRU2 and SRU3 from the amine regeneration units and the sour water stripper shall be tested at least monthly for H_2S concentration. The permittee shall monitor the following: (1) Flow rate of sour water stream to SRUs, (2) SO_2 concentration in SRU incinerator stacks and (3) Flow rate of the SRU incinerator stacks.
Recordkeeping: The permittee shall maintain records in accordance with the applicable requirements of NSPS Subparts J or Ja and MACT Subpart UUU. The permittee shall also keep records of the following: (1) Flow rate of sour water stream to SRUs, (2) SO_2 concentration in SRU incinerator stacks and (3) Flow rate of the SRU incinerator stacks.
Reporting: The permittee shall report in accordance with the applicable requirements of NSPS Subparts J or Ja, MACT Subpart UUU, and Section B110.

D. 40 CFR 60, Subpart J (Unit SRU2)

Requirement: The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart J.
Monitoring: The permittee shall install a continuous monitoring device to monitor compliance with the H_2S limit. (40 CFR 60.105(a)(3-4))
Recordkeeping: The permittee shall maintain the continuous emission records.
Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60, Subpart J.

E. 40 CFR 60, Subpart Ja (Unit SRU3)

Requirement: The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart Ja.
Monitoring: The permittee shall install a continuous monitoring device to monitor compliance with the H_2S limit. (40 CFR 60.105a(a)(3-4))
Recordkeeping: The permittee shall maintain the continuous emission records.
Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60, Subpart Ja.

A208 Amine Unit – Not Required

A209 Fugitives

A. NSPS Subpart GGGa, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (Fugitives subject in Table 103.B)

Requirement: (1) The permittee shall comply with all applicable requirements of NSPS Subpart GGGa for all sources in Table 103.B (affected units and voluntarily units). This table also includes areas that are voluntarily following the NSPS Subpart GGGa monitoring requirements. (2) Compliance with 40 CFR Part 60, Subpart GGGa. (63.640(p)(2)) demonstrates compliance with MACT Subpart CC, "National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries" (Fugitives subject in Table 103.B).
Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 60, Subpart GGGa.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 60, Subpart GGGa.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60, Subpart GGGa.

B. NSPS Subpart QQQ, Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems (Fugitives subject in Table 103.B)

Requirement The permittee shall comply with all applicable requirements of NSPS QQQ, at 40 CFR 60.690. (CD 29) The permittee agreed that this regulation would apply to the entire facility not just those sources applicable due to construction dates.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart QQQ (§60.695).
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.696.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60.697.

C. Minor changes within the facility to piping and components that affect fugitive VOC emission source shall be updated and added during the next submitted NSR Significant permit revision in accordance with 20.2.72 NMAC. The facility wide fugitive VOC emission limit is shown in Table 106.A of this permit.

A210 Loading Racks

A. Truck and Rail Loading (Units shown in Table 106.G)

Requirement: Compliance with the allowable emission limits in Table 106.G shall be demonstrated by not exceeding the monthly rolling 12-month total throughput for each loading rack for each different product in barrels/year. For Unit TL-4 VOC pph limits meet the loading rack emissions standards at 40 CFR 63.422(b) for any type of fuel loaded through unit TL-4.
Monitoring: The permittee shall monitor the throughput volumes on a monthly basis.
Recordkeeping: The permittee shall record the monthly throughput volume for each loading rack for each different product. Each month during the first 12-months of monitoring the permittee shall record the cumulative condensate loadout volume and after the first 12-months of monitoring, the permittee shall calculate and record a monthly rolling 12-month total loadout volume. Records shall also be maintained in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

B. Fuels Truck Loading Rack (Unit TL-4 identified as subject in Table 103.D) to comply with 40 CFR 63, Subpart CC

Requirement: The permittee shall comply with all applicable requirements of MACT Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries. Specifically, the Fuels Truck Loading Rack (Unit TL-4) shall be equipped with a carbon adsorption system for compliance with the MACT requirements.
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 63, Subpart CC. Specifically 63.427(a)(2), where a carbon adsorption system is used, a continuous emission monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63, Subpart CC.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63, Subpart CC.

A211 Fluid Catalytic Cracking Unit (FCC)

A. Continuous Monitor System (CMS) (Unit FCC REGEN)

Requirement: (1) Consent Decree Limits on PM and SO_2 emissions from the FCC: By no later than December 31, 2003, the Wet Gas Scrubber (WGS) on the FCC Regenerator shall comply with the following limits: (CD ¶12.B & ¶13.B)

(a) SO_2 concentration not to exceed 25 ppmvd on a daily rolling 365-day average basis and 50 ppmvd on a daily rolling 7-day average basis, each corrected to 0% oxygen. Compliance with this emissions limit shall be demonstrated on an ongoing basis through the use of CMS; and

(b) A particulate matter (PM) emission limit of 1.0 pound of PM per 1000 pounds of coke burned on a 3-hour average basis (CD ¶13.B). To demonstrate compliance with this requirement, the Permittee shall conduct an annual EPA Method 5 Test for PM and weekly EPA Method 9, Opacity Test in accordance with their approved Alternative Monitoring Plan (AMP).

(c) As the FCC Regenerator is subject to the provisions of 40 CFR 60.102 (NSPS Subpart J), it shall not discharge to the atmosphere gases exhibiting greater than 30 percent opacity, except for one six-minute average opacity reading in any one-hour period.

(2) Consent Decree Limits on NOx and CO emissions from the FCC: The FCC shall comply with NOx and CO emission limits as follows:

(a) The concentration-based (ppmvd) NOx emission limit based on daily rolling 7-day and daily rolling 365-day averages, corrected to 0% oxygen as established pursuant to the Consent Decree, unless EPA rejects the proposed limit and establishes a different NOx emission limit, in which case the FCC shall comply with EPA's established limit. Under no circumstances shall this emission limit be greater than a concentration-based limit that would be equivalent to 34.9 lbs/hr. The 7-day FCC NOx emission limits shall not apply during periods of Hydrotreater Outage provided that the FCC (including associated air pollution control equipment) is maintained and operated in a manner that minimizes emissions in accordance with an EPA-approved good air pollution control practices plan. The permittee shall comply with the plan at all times, including periods of startup, shutdown, and malfunction of the hydrotreater. The daily rolling 365-day average NOx emissions limit shall apply during periods of hydrotreater outages. The NOx limits are:

(1) 87.1 ppmvd NOx, corrected to 0% O_2 on a daily rolling 7-day average, and

(2) 58.1 ppmvd NOx, corrected to 0% O_2 on a daily rolling 365-day average.

(b) The NSPS Subpart J emission limit of 500 ppmvd CO corrected to 0% O_2 on a 1-hour average basis and 100 ppmvd CO corrected to 0% O_2 on a daily rolling 365-day average basis, by no later than December 31, 2003.

Monitoring:

(1) A continuous monitor system (CMS) for CO, O_2, SO_2 and NOx shall be installed, calibrated, maintained, and operated on the FCC Catalyst Regenerator vent stack(s) downstream of the scrubber in accordance with 40 CFR Part 60, §60.13, Appendix A, and the applicable performance specifications of Appendices B (Specifications 2 and 3) and F.

The CMS shall be used to demonstrate compliance with CO, SO_2 and NOx emissions limits and to report compliance with the terms and conditions of the Consent Decree.

The CMS and process data shall be made available, by permittee, to applicable Federal and State Agencies (NMED) upon demand as soon as practicable. (CD ¶11.F, 12 D, and 14.C)

(2) The FCC Regenerator Scrubber NOx, SO_2, CO and O_2 CMS shall be recertified annually. (3) The CMS data shall be monitored to ensure the CO, SO_2 and NOx emission limits for the FCC are met. (4) The Permittee shall conduct an annual EPA Method 5 Test for PM and weekly EPA Method 9 Opacity test to demonstrate compliance with the particulate matter (PM) emission limit of 1.0 pound of PM per 1000 pounds of coke burned on a 3-hour average basis and opacity limit of 30%. Permittee shall meet testing requirements of B111.
Recordkeeping: The permittee shall maintain the records of: (1) The certification and re-certification of the CMS. (2) Modifications to the FCC's good air pollution control practice plan to minimize NOx emissions shall be summarized on an annual basis if any changes were made. (CD ¶11.G) (3) The permittee shall keep records of CMS data monitoring NO_2, SO_2, PM_{10} and CO emissions from the FCC. (CD ¶11.F, CD ¶12.D & CD ¶14.C) (4) Records of NOx, CO, SO_2 ppmvd, lb/hr, tpy; PM lb/hr, tpy and opacity. TPY shall be based on a monthly rolling 12-month total. (5) The permittee shall keep records of annual PM stack tests and weekly Method 9 observations conducted on the FCC. For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.
Reporting: The permittee shall report in accordance with Section B110 and testing requirements of B111.

B. Performance Testing (Unit FCC REGEN)

Requirements: (1) The permittee shall demonstrate compliance with the NSPS Subpart J particulate matter emission limit at Table 106.A by conducting an initial performance test in accordance with NSPS Subpart A, §60.8 and NSPS Subpart J, §60.106(b). The particulate matter stack test shall be repeated on an annual basis. (2) The permittee shall comply with all applicable performance testing requirements in accordance with MACT Subparts A and UUU.
Monitoring: Testing shall be conducted in accordance with NSPS Subparts A and J, and in accordance with MACT Subparts A and UUU.
Recordkeeping: The permittee shall maintain performance test records in accordance with NSPS Subparts A and J, MACT Subparts A and UUU, and in accordance with Section B109.
Reporting: The permittee shall report performance test results in accordance with NSPS Subparts A and J, MACT Subparts A and UUU, and in accordance with Section B110.

A212 Cooling Towers

A. MACT Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (Cooling Towers subject in Table 103.F)

Requirement: The permittee shall comply with all applicable requirements of 40 CFR 63, Subpart CC for heat exchange systems for all affected sources shown in Table 103.F attached (§63.654(a) and §63.640(h)(6))
Monitoring: The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 63, Subpart CC (§63.654(c), (d), (e), (f)).
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart CC (§63.654(g), §63.655(i)(4) and (i)(5)).
Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR 63, Subpart CC (§63.655(f), (f)(1)(vi), (g)(9), and (h)(1), (7)).

B. Cooling Tower Operations (Cooling Towers subject in Table 103.F)

Requirement: Compliance with the allowable emission limits in Table 106.H shall be demonstrated by meeting the following requirements: 1) operate a maximum of six (6) recirculating pumps at any one time; 2) ensure that each pump capacity shown in Table 104.A do not exceed the gallons per minute for each cooling tower (65,500 gpm total maximum rate for 6 pumps); 3) limit the Total Dissolved Solids (TDS) content for the cooling tower recirculating water system to 3500 ppmw, based on a monthly rolling 12-month annual average; 4) ensure that the drift eliminator is rated by the manufacturer at 0.001% or 0.003 drift or less as shown in Table 104.A; and 5) ensure that the drift eliminator is present and in good working order. The permittee shall measure the Total Dissolved Solids (TDS) content of the recirculating water through direct laboratory analysis or may use a conductivity meter on the recirculating water system for the cooling tower. The correlation between conductivity of the water and the TDS content shall be taken as 0.9 * conductivity (μmhos/cm) = TDS (ppmw) unless a new correlation is determined through laboratory analysis and submitted to the Permit Program Manager for approval.
Monitoring: The permittee shall: 1) Monitor the recirculating water TDS content by direct laboratory analysis of the TDS or through use of conductivity meter values and correlated TDS on a monthly basis; and a. Any correlation other than the 0.9 value described above shall be developed by the permittee by independent laboratory measurement of at least 10 water samples with approximately evenly spaced measured TDS values that bracket the minimum and maximum values expected. The highest laboratory TDS sample used for the correlation shall be greater than the maximum allowable TDS of 3500 ppmw.

2) Perform an annual inspection of the drift eliminator and perform any maintenance necessary to ensure the device operates according to the manufacturer's specifications. 3) The permittee shall monitor the cooling water inlet and outlet streams for hydrocarbons on an annual basis using either EPA Method 8015 with a large enough sample to achieve accurate quantification of hydrocarbon content, EPA Method 8260, EPA Method 8270 or a similar method as approved by the Department prior to testing.
Recordkeeping: The permittee shall maintain the following records: 1) Manufacturer's specifications demonstrating maximum capacities of the recirculating water pumps and the manufacturer's specification for the drift eliminator specified drift rate; 2) Monthly TDS and monthly rolling 12-month average; 3) If a conductivity meter is installed, a record of the correlation between conductivity and TDS, any laboratory analyses used to determine the correlation, and all related calculations; 4) Annual drift eliminator inspection and any records of maintenance performed. The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

A213 Wastewater Systems

A. 40 CFR 60, NSPS Subpart QQQ, Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems

Requirement: Beginning December 31, 2003, all remaining and newly installed individual drain systems, oil-water separators, and aggregate facilities not previously specified shall be affected facilities, as the term is used in the NSPS at 40 CFR Part 60, Subpart QQQ, and shall be subject to and comply with the applicable requirements of 40 CFR Part 60, Subpart QQQ. (CD ¶29) The permittee shall comply with all applicable requirements of NSPS Subpart QQQ for the affected sources in Tables 103.B (fugitives), 103.C (tanks), and 103.G (wastewater) (§60.690).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60, Subpart QQQ (§60.695 and §60.696).
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.697.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 60.698.

B. 40 CFR 63, MACT Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

Requirement: The permittee shall comply with all applicable requirements of MACT Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries for all affected sources shown in attached Tables 103.B (fugitives), 103.C (tanks), and 103.G (wastewater) (§63.640).
Monitoring: The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 63, Subpart CC.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63.655.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63.655.

C. Wastewater Treatment System (Units shown in Table 106.I)

Requirement: Compliance with the emission limits in Table 106.I shall be demonstrated by properly maintaining and repairing the units and running the Wastewater Model annually to calculate the maximum VOC emissions generated.
Monitoring: (1) Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur for the following events: (a) Routine maintenance that takes a unit out of service for more than two hours during any twenty-four hour period. (b) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period. (2) The permittee shall annually run the Waste-Water Model to determine the hourly and annual emission rates, based on EPA's WATER9, the wastewater treatment model, or the most recently approved applicable EPA wastewater model.
Recordkeeping: (1) The permittee shall maintain records in accordance with Section B109, including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule. (2) The permittee shall maintain records of the EPA's WATER9, the wastewater treatment model, or the most recently approved applicable EPA wastewater model, Input Parameters and the emission calculation results compared to permit limits.
Reporting: The permittee shall report in accordance with Section B110.

PART B GENERAL CONDITIONS (Attached)

PART C MISCELLANEOUS: Supporting On-Line Documents; Definitions; Acronyms (Attached)

PART D ATTACHMENTS:

Table 103.B through 103.K (Applicable Requirements Tables)

Table 104.A (Regulated Sources List)

Table 106.A through Table 106.I (Allowable Emission Limits)

Table 107.A (Startup, Shutdown, and Maintenance (SSM) Emission Limits)