STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

AND PREVENTION OF SIGNIFICANT DETERIORATION AUTHORITY TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Chevron USA Inc.
Chevron Products Company, Pascagoula Refinery
250 Industrial Road
Pascagoula, Mississippi
Jackson County

"Pascagoula Base Oil Project (PBOP)" and
"Holistic Sulfur Project"

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: April 14, 2009

Modified: December 21, 2010; November 27, 2012; February 1, 2013, APR 11 2017

Permit No.: 1280-00058

2299 PER20120004

Part I

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)

2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)

3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)

5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)

6. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)

7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(b).)

8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

9. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee may furnish

such records directly to the Administrator along with a claim of confidentiality. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(d).)

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A.)

11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. (Ref.: Miss. Code Ann. 49-17-29)

12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in 11 Miss. Admin. Code Pt. 2, R. 1.10., "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)

14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

    a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

    b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions. (Ref.: Miss. Code Ann. 49-17-21)

15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:

    a) Persistent violation of any of the terms or conditions of this permit;

b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.C.)

16. Public Record and Confidential Information: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control. (Ref.: Miss. Code Ann. 49-17-39)

17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B)

18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.1.D(7).)

19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1).)

20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

21. Beginning Operation: Except as prohibited in Part I, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by 11 Miss. Admin. Code Pt. 2, R. 2.13.G. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)

22. Application for a Permit to Operate: Except as otherwise specified in Part I, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

23. Operating Under a Permit to Construct: Except as otherwise specified in Part I, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)

24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to "net" out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7).)

25. Compliance Testing: Regarding compliance testing:

    a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

    b) Compliance testing will be performed at the expense of the permittee.

    c) Each emission sampling and analysis report shall include but not be limited to the following:

        (1) detailed description of testing procedures;

        (2) sample calculation(s);

        (3) results; and

        (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)

2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)

3. Upon the completion of construction or installation of an approved stationary source or modification, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1).)

4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

PART II

SPECIFIC EMISSION LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING

PLANT 15 – RHENIFORMER I/NAPHTHA HYDROTREATER (NHT) I

EMISSION POINT AG-043

Beginning upon certification of construction for the PBOP Project, the permittee shall comply with the following emission limits for Emission Point AG-043, the three (3) Rheniformer I Process Furnaces with a combined heat input of 493 MMBtu/hr, venting through a common stack (Ref. F-1501/1502/1503).

The existing emission limits for the furnaces are being reduced based on a reduction in the heat input and better, site-specific emission factors. These furnaces are not undergoing any physical modifications or change in the method of operation as result of the permitted projects; however, the stack height is permitted to be increased.

EMISSIONS LIMITS

Particulate Matter/PM_{10}	5.55 lb/hr (3-hr rolling average) and 16.20 tons/year (12-month rolling total)
Sulfur Dioxide	30.30 lb/hr (24-hr rolling average)
Nitrogen Oxides	76.91 lb/hr (3-hr rolling average) and 280.7 tons/year (12-month rolling total)
Carbon Monoxide	106.77 lb/hr (3-hr rolling average) and 169.0 tons/year (12-month rolling total)

FUEL RESTRICTION FOR AG-043

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart J – Petroleum Refineries

For Emission Point AG-043, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries* (40 CFR Part 60, Subpart J) and the applicable *General Provisions* (40 CFR Part 60, Subpart A).

Sulfur Dioxide/H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf), based on a 3-hour rolling average. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph. (Ref. 40 CFR 60.104(a)(1))

INITIAL COMPLIANCE DEMONSTRATION

Within 180 days of certification of construction with the PBOP Project, the permittee shall demonstrate initial compliance with the emission limits and standards for the following pollutants by stack testing in accordance with the specified method(s).

Particulate Matter	EPA Test Methods 1-5 (40 CFR Part 60, Appendix A)
Nitrogen Oxides	EPA Test Method 7, 7A, or 7E (40 CFR Part 60, Appendix A)
Carbon Monoxide	EPA Test Method 10 (40 CFR Part 60, Appendix A)

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate all three furnaces as close to their maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

NOTIFICATION REQUIREMENT

For Emission Point AG-043, if any of the physical stack parameters used to model emissions from the Rhen I furnaces should differ upon completion of construction of the modified stack, the permittee shall determine how these differences affect the air quality impacts of NO_x emissions. The permittee shall revise and resubmit the NO_x air quality analysis if the actual (or as built) stack parameters may result in an increase in modeled NO_x emissions.

PLANT 24 – AROMAX PLANT

EMISSION POINT AN-007

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AN-007, the Aromax lab oily water sump located in the Aromax Plant (Plant 24). The wastewater sump is enclosed with emissions from the sump vented to dedicated dual carbon canisters.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

NESHAP Subpart FF – Benzene Waste Operations

For Emission Point AN-007, the permittee is subject to and shall comply with the standards for individual drain systems found in §61.346 of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*, and the *General Provisions* (40 CFR Part 61, Subpart A).

PLANT 27 – SULFUR RECOVER UNITS II AND III

EMISSION POINTS AO-004 AND AO-005

Beginning upon permit issuance, the permittee is authorized to modify air emissions equipment and emit air contaminants from Emission Points AO-004 and AO-005, the SRU II Tail Gas Vent and SRU III Tail Gas Vent, respectively, located in Plant 27. Emissions from SRU II and SRU III Tail Gas Vents are controlled by a shared Shell Claus Offgas Treatment (SCOT) absorber followed by two 30.8 MMBtu/hr Thermal Oxidizers (Ref.: F-2745 and F-2765). Emission Points AO-004 and AO-005 will be modified to allow for oxygen enrichment, which will increase the sulfur processing capacity.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS[1, 2]

Sulfur Dioxide	42.35 tons/year (12-month rolling total)
Carbon Monoxide	8.46 lb/hr (3-hr rolling average) and 24.71 tons/year (12-month rolling total)
Hydrogen Sulfide	0.31 lb/hr (3-hr block average)

[1] All of the emission limits above are limits for the combined emissions from Emission Points AO-004 and AO-005.
[2] The SO_2 and H_2S limits are effective upon certification of construction for the installation of oxygen enrichment on both SRUs II and III. The CO limits are effective upon certification of construction for PBOP.

FUEL RESTRICTION

Fuels other than natural gas and flash gas are prohibited.

MACT Subpart UUU – Petroleum Refineries: Sulfur Recovery Units

For Emission Points AO-004 and AO-005, the permittee is subject to and shall comply with the *National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units* (40 CFR Part 63, Subpart UUU) and the applicable *General Provisions* as specified in Table 44 of this subpart. These emission points are considered existing affected sources. (Ref.: 40 CFR 63.1562(b)(3) and (e) and 40 CFR 63.1577)

NSPS Subpart Ja – Petroleum Refineries

Upon certification of construction for installing oxygen enrichment on SRU II or SRU III, the SRU shall be subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

Emission Standards and Work Practice Standards

Sulfur Dioxide Standard for Oxidation or Reduction Control System Followed by Incineration:

The permittee shall not discharge or cause the discharge of any gases into the atmosphere in excess of 250 ppm by volume (dry basis) of sulfur dioxide (SO_2) at zero percent excess air. If the sulfur recovery plant consists of multiple process trains or release points, the permittee shall comply with the 250 ppmv limit for each process train or release point or comply with a flow rate weighted average for all release points from the sulfur recovery plant. (Ref.: 40 CFR 60.101a and 60.102a(f)(1)(i))

Sulfur Dioxide Standard for Systems Using Oxygen Enrichment:

The permittee shall calculate the applicable SO_2 emission limit using the following equation:

$$E_{LS} = k_1 \times (-0.038 * (\%O_2)^2 + 11.53 * \%O_2 + 25.6)$$

Where:

E_{LS} = Emission rate of SO_2 for large sulfur recovery plant, ppmv;
k_1 = Constant factor for emission limit conversion: $k_1 = 1$ for converting to SO_2 limit; and
$\%O_2 = O_2$ concentration to the sulfur recover plant, percent by volume (dry basis).

(Ref.: 40 CFR 60.102a(f)(1)(iii))

Work Practice Standard:

The permittee shall conduct a root cause analysis and a corrective action analysis each time the SO_2 emissions are more than 227 kg/day (500 lb/day) greater than the amount that would have been emitted if the SO_2 concentration was equal to the applicable emission limit during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(3))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(3). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

INITIAL COMPLIANCE DEMONSTRATION

Within 60 days after achieving the maximum production rate at which Emission Points AO-004 and AO-005 will be operated, but not later than 180 days after initial startup of the oxygen enrichment, the permittee shall demonstrate initial compliance with the emission limits and standards for the following pollutant by stack testing in accordance with the specified method(s).

Hydrogen Sulfide	EPA Test Method 15 (40 CFR Part 60, Appendix A)

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall test SRU's II and III concurrently and operate both as close to their maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall use the continuous SO_2 monitoring system required by 40 CFR Part 106a(a)(1) to demonstrate compliance with the tons/year emission limit.

The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of any SO_2 emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air and shall comply with the requirements of §60.106a(a)(1)(i)-(iii). (Ref.: 40 CFR 60.106a(a)(1))

Periods of excess emissions are all 12-hour periods, calculated hourly as the arithmetic average of 12 contiguous 1-hour averages, during which the average concentration of SO_2 as measured by the SO_2 continuous monitoring system exceeds the applicable emission limit (dry basis, zero percent excess air). (Ref.: 40 CFR 106a(b)(1)

Carbon Monoxide:
To demonstrate compliance with the CO emission limits expressed as lb/hr and tons/year, the permittee shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for monitoring and recording the concentration by volume (dry basis) of CO and O_2 emissions to the atmosphere. The CO and O_2 CEMS shall meet the applicable performance specifications required by 40 CFR Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR §60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F §§5.1.1, 5.1.3, and 5.1.4, Chevron may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on each CEMS at least once every three (3) years. Chevron shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed.

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

Sulfur Dioxide:
The permittee shall maintain records of the following:

(a) All CEMS data.
(b) The rolling 12-month SO_2 emissions calculated monthly in units of tons/year.
(c) Applicable recordkeeping requirements of §60.108a.

Carbon Monoxide:
The permittee shall maintain records of the following:

(a) All CEMS data.
(b) The rolling 3-hour average CO emissions calculated hourly in units of lb/hr.
(c) The rolling 12-month CO emissions calculated monthly in units of tons/year.

NSPS Subpart Ja Recordkeeping:
The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PLANTS 34 /45– BLENDING/SHIPPING PLANTS

STORAGE TANKS

Beginning upon permit issuance, the permittee is authorized to construct or modify air emissions equipment and emit air contaminants from the following storage tanks located in the Blending Plant (Plant 34):

EMISSION POINT	TANK ID	CONTENTS	VOLUME (GAL)	ROOF TYPE
AS-172[2,4]	T-172	Sour Water/Intermediate	3,410,484	External Floating Roof
AS-515	T-515	Waxy 100R Base Oil	4,200,000	Fixed Roof
AS-516	T-516	Waxy 220R Base Oil	6,300,000	Fixed Roof
AS-517	T-517	Waxy 600R Base Oil	6,300,000	Fixed Roof
AS-525[1]	T-525	Light Lube Stock VGO	10,500,000	Fixed Roof venting to H_2S control system
AS-526[1]	T-526	Heavy Lube Stock VGO	10,500,000	Fixed Roof venting to H_2S control system
**	T-800	Finished 100R Base Oil	5,930,400	Fixed Roof
**	T-801	Finished 100R Base Oil	5,930,400	Fixed Roof
**	T-802	Finished 60R Base Oil	1,680,000	Fixed Roof
**	T-803	Finished 60R Base Oil	1,680,000	Fixed Roof
**	T-804	Finished 220R Base Oil	5,930,400	Fixed Roof
**	T-805	Finished 220R Base Oil	5,930,400	Fixed Roof
**	T-806	Finished 600R Base Oil	5,930,400	Fixed Roof
**	T-807	Finished 600R Base Oil	5,930,400	Fixed Roof
AZ-820	T-820	Purchased VGO	12,684,000	Fixed Roof venting to H_2S control system

** These tanks are not assigned Emission Point ID's because they are considered insignificant activities for Title V permitting purposes.

[1] Emission Points AS-525 and AS-526 will vent to a common H_2S control system.

[2] Emission Points AS-172 is subject to and shall comply with the applicable requirements of the *New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*

(40 CFR Part 60, Subpart Kb) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.110b(a)) The permittee shall equip the storage vessels with an external floating roof meeting the specifications of §60.112b(a)(2).

[4] Emission Point AS-172 is subject to 40 CFR Part 61, Subpart FF. Chevron will comply with Subpart FF by meeting the alternative standards for tanks found in 40 CFR 61.351(a)(2), which requires complying with the Subpart Kb requirements of §60.112b(a)(2).

PLANT 34 – BLENDING PLANT

EMISSION POINT AS-011

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point AS-011 (F-34300), the 9.5 MMBtu/hr Hot Oil Heater, located in Blending Plant (Plant 34). The heater is equipped with an Ultra Low-NO_x Burner for the reduction of NO_x emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS

Nitrogen Oxides	0.030 lb/MMBtu (30-day rolling average, BACT Limit), not to exceed 0.43 lb/hr (3-hr rolling average) and 1.25 tons/year (12-month rolling total)

FUEL RESTRICTION

Fuels other than natural gas are prohibited.

INITIAL COMPLIANCE DEMONSTRATION

Within 60 days after achieving the maximum production rate at which Emission Point AS-011 will be operated, but not later than 180 days after initial startup of AS-011, the permittee shall demonstrate initial compliance with the NO_x emission limits by stack testing in accordance with the specified method(s). The permittee shall also demonstrate through an initial stack test that the potential emission rate of CO represented in the application (i.e., 50 ppmvd @ 3% O_2) is accurate.

Nitrogen Oxides	EPA Test Method 7, 7A, or 7E (40 CFR Part 60, Appendix A)
Carbon Monoxide	EPA Test Method 10A (40 CFR Part 60, Appendix A)

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

PLANT 34 – BLENDING PLANT

SUMP EMISSION POINTS

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from the following sumps located in the Blending Plant (Plant 34). Wastewater sumps AS-015 and AS-016 are enclosed with emissions from each sump vented to dedicated dual carbon canisters. Wastewater sumps AS-523, AS-527, AS-528, and AS-860 are enclosed with emissions from each sump vented to dedicated either sulfatreat or carbon adsorbers to control H_2S/TRS. Wastewater sumps AS-840 and AS-850 are not controlled.

The sumps are located in the following areas of Plant 34:

Emission Point	Refinery Ref.	Location	Controls
AS-015		CalKy Pipeline	Dual Carbon Canister
AS-016		Plains Pipeline	Dual Carbon Canister
AZ-485	P-34485	AOV Sump	Sulfatreat or Carbon Canister
AS-523	P-34523	T-525/526	Sulfatreat or Carbon Canister
AS-527	P-34527	Area 9A Pump Pad	Sulfatreat or Carbon Canister
AS-528	P-34528	Area 9 Pump Pad	Sulfatreat or Carbon Canister
AZ-840	P-34840	T-800/801/802/803	None
AZ-850	P-34850	T-804/805/806/807	None
AZ-860	P-34860	T-820	Sulfatreat or Carbon Canister

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

NESHAP Subpart FF – Benzene Waste Operations

For Emission Points AS-015 and AS-016, the permittee is subject to and shall comply with the standards for individual drain systems found in §61.346 of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations,* and the *General Provisions* (40 CFR Part 61, Subpart A).

H_2S MONITORING PLAN

For Emission Points AZ-485, AS-485, AS-523, AS-527, AS-528, AZ-860, in order to demonstrate compliance with the H_2S standard of one grain per 100 standard cubic feet (1 gr/100 scf) found in 11 Miss. Admin Code Pt. 2, R. 1.4.B(2), the permittee shall develop

a monitoring plan for ensuring compliance with this standard. The monitoring plan shall address the H_2S emission sources to be tested, the rationale for selecting these sources, the test/monitoring method(s) to be used, the frequency of the testing/monitoring, and the threshold at which corrective action will be taken to reduce H_2S emissions.

PLANT 36 – COOLING WATER SYSTEM

EMISSION POINT AU-361

Beginning upon permit issuance, the permittee is authorized to modify air emissions equipment and emit air contaminants from Emission Point AU-361 (formerly AB-370), the No. 2 Cooling Tower (Ref.: E-36101), located in the Cooling Water Plant (Plant 36). The cooling tower is equipped with high-efficiency drift eliminators to reduce particulate emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMIT

Volatile Organic Compounds	0.7 lb/MM gal of circulated water (12-month rolling average, determined monthly), not to exceed 10.12 tons/year (12-month rolling total, determined monthly)

AIR POLLUTION CONTROL EQUIPMENT

The permittee shall equip Emission Point AU-361 with high-efficiency drift eliminators guaranteed by the manufacturer for a total liquid drift not to exceed 0.001 percent of the circulating water flow rate.

MACT Subpart CC – Petroleum Refineries

On or before October 29, 2012, Emission Point AU-361 is subject to and shall comply with the Heat Exchange System sampling, monitoring and repair requirements found in the National Emission Standards for Hazardous Air Pollutants as described in 40 CFR 63, Subpart CC – National Emission Standards for Hazardous Air Pollutions from Petroleum Refineries and the General Provisions (40 CFR 63, Subpart A).

MONITORING REQUIREMENTS

The permittee shall comply with the applicable monitoring elements for sample location, method, frequency, leak action level and delay of repair as prescribed in 40 CFR 63, Subpart CC. If a leak is detected, the permittee shall repair the leak as soon as practicable, but no later than 45 days. The repair may be delayed if the conditions described under 40 CFR 63.654(f) are met. (Ref.: 40 CFR 63.654)

The permittee shall continue to implement the written monitoring plan required by the PSD Permit to Construct initially issued May 8, 2007, and addressed in the Title V Operating Permit. This plan includes performing monthly monitoring of the VOC content at each header to the cooling tower with an air stripping method meeting the requirements of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method.

The permittee shall continuously monitor the total inlet water flow rate to the cooling tower in gallons per minute.

RECORDKEEPING REQUIREMENTS

The permittee shall record the monthly VOC concentration and the total monthly cooling water flow, as well as the monthly VOC emission rate in lb/MM gal of circulated water and tons/year. The 12-month rolling total VOC emission rate for each month shall be calculated by summing the VOC concentration measured for each month of the 12-month period multiplied by the total cooling water flow for that month.

The permittee shall retain records of the design and manufacturer-guaranteed maximum total liquid drift of the cooling tower. These records shall be maintained on site and made available for review by DEQ personnel.

PLANT 37 – ACID AND MARKETING AREA

EMISSION POINT AV-123

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from the Base Oil Railcar Loading Rack, located in the Acid and Marketing Area (Plant 37).

The permittee is also authorized to construct a sump (Ref.: P-3780) in Plant 37. There are no applicable requirements for this sump.

PLANT 38 – FLARES AND RELIEF SYSTEM

FLARES 1 THROUGH 6

NSPS Subpart Ja – Petroleum Refineries

Upon certification of construction for the PBOP Project, Emission Points AW-381 (Flare No. 1), AW-382 (Flare No. 2), AW-383 (Flare No. 3), AW-384 (Flare No. 4), AW-591 (Flare No. 5), and AW-592 (Flare No. 6) shall become affected sources and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A).

H_2S Standard:
The permittee shall not burn in any affected flare any fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this limit. (Ref.: 40 CFR 60.103a(h))

The permittee shall comply with the H_2S standard above upon startup of the modified flare(s), or no later than November 11, 2015. (Ref.: 40 CFR 60.103a(f))

Work Practice Standards:
The permittee shall develop, implement, and comply with a written flare management plan and submit such plan no later than November 11, 2015, or upon startup of the modified flare(s), whichever is later. The plan must include the items specified in §60.103a(a)(1)-(7). The plan should be updated periodically to account for changes in the operation of the flare as described in §60.103a(b)(2). All versions of the plan shall be submitted to MDEQ and to the U.S. Environmental Protection Agency at the address provided in §60.103a(b)(3) or via email to refinerynsps@epa.gov. (Ref.: 40 CFR 60.103a(a) and (b))

The permittee shall conduct a root cause analysis and a corrective action analysis for each of the following conditions:

(1) Any time the SO_2 emissions exceed 227 kg/day (500 lb/day) of SO_2 in any 24-hour period;
(2) Any discharge to the flare in excess of 14,160 standard cubic meters (500,000 scf) above the baseline, determined in in §60.103a(a)(4), in any 24-hour period;
(3) If the monitoring alternative in in §60.107a(g) is elected, any period when the flare gas line pressure exceeds the water seal liquid depth, except for periods attributable to compressor staging that do not exceed the staging time specified in in §60.103a(a)(3)(vii)(C). (Ref.: 40 CFR 60.103a(c)(1))

Except as provided in §60.103a(f) and (g), a root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting one of the conditions in §60.103a(c)(1). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

Monitoring, Recordkeeping, and Reporting:
The permittee shall comply with the applicable monitoring requirements of §60.107a(a)(2), (e), (f), (g), and (i) and the applicable recordkeeping and reporting requirements of §60.108a.

The permittee must comply with the monitoring requirement of §60.107a(a)(2) upon startup of the modified flare(s), or no later than November 11, 2015. (Ref.: 40 CFR 60.103a(f))

PLANT 45 – SHIPPING

EMISSION POINT AZ-407, AZ-412, AZ-422

Beginning upon permit issuance, the permittee is authorized to modify air emissions equipment and emit air contaminants from the following crude oil storage tanks located in Shipping (Plant 45). These tanks may be modified to store high viscosity/high acid crude.

EMISSION POINT	TANK ID	CONTENTS	VOLUME (GAL)	ROOF TYPE
AZ-407	T-407	Crude oil	16,246,608	External Floating Roof
AZ-412	T-412	Crude oil	16,257,906	External Floating Roof
AZ-422	T-422	Crude oil	16,258,032	External Floating Roof

NSPS Subpart Kb – Volatile Organic Liquid Storage Vessels

For Emission Points AZ-407, AZ-412, and AZ-422, upon certification of construction with the proposed modifications, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* (40 CFR Part 60, Subpart Kb) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.110b(a))

The permittee shall equip the storage vessels with an external floating roof meeting the specifications in §60.112b(a)(2).

MACT Subpart CC – Petroleum Refineries

For Emission Points AZ-407, AZ-412, and AZ-422, the tanks shall be Group 1 tanks and shall comply with 40 CFR Part 63, Subpart CC, by complying with 40 CFR Part 60, Subpart Kb. (Ref.: 40 CFR 60.640(n)(1))

PLANT 45 – SHIPPING

EMISSION POINTS AZ-021 AND AZ-022

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points AZ-021 and AZ-022, two wastewater sumps located in Berth 7A and Berth 9, respectively, of Shipping (Plant 45). Both sumps are enclosed with emissions from each sump vented to either a carbon adsorber or Sulfatreat to control VOC and/or H_2S.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

NESHAP Subpart FF – Benzene Waste Operations

For Emission Point AZ-021, the permittee is subject to and shall comply with the standards for individual drain systems found in §61.346 of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*, and the *General Provisions* (40 CFR Part 61, Subpart A).

H_2S MONITORING PLAN

For Emission Point AZ-022, in order to demonstrate compliance with the H_2S standard of one grain per 100 standard cubic feet (1 gr/100 scf) found in 11 Miss. Admin Code Pt. 2, R. 1.4.B(2),, the permittee shall develop a monitoring plan for ensuring compliance with this standard. The monitoring plan shall address the H_2S emission sources to be tested, the rationale for selecting these sources, the test/monitoring method(s) to be used, the frequency of the testing/monitoring, and the threshold at which corrective action will be taken to reduce H_2S emissions.

PLANT 64 – HYDROGEN II PLANT

EMISSION POINT BH-013

Beginning upon certification of construction for the base oil project, the permittee is authorized to emit air contaminants from Emission Point BH-013, the Deaerator Vent (Ref.: C-6413), located in the Hydrogen II Plant (Plant 64). To make emissions reductions from this source creditable, a federally enforceable annual limit is imposed below.

EMISSIONS LIMITS

Volatile Organic Compounds	36.00 tons/year (12-month rolling total, determined monthly)

INITIAL COMPLIANCE DEMONSTRATION

Within 90 days of certifying construction for the base oil project, the permittee shall demonstrate initial compliance with the emission limits for the following pollutant by stack testing in accordance with the specified method(s).

Volatile Organic Compounds (expressed as methanol)	EPA Test Method 25 (40 CFR Part 60, Appendix A)

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate the Hydrogen II Plant as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

MONITORING REQUIREMENTS

Within 180 days of certifying construction for the base oil project, the permittee shall submit a written plan for demonstrating compliance with the tons/year VOC emission limit. This monitoring plan shall be submitted to DEQ and shall be implemented upon

submission to DEQ. DEQ reserves the right to comment on or request revisions to the plan. The plan shall include at minimum the following information:

(a) The operating parameter(s) to be monitored and the method and frequency of monitoring;

(b) The relationship, or correlation, between the monitored parameter(s) and the VOC emission rate;

(c) The calculations, stack test data, monitoring data, etc. used for establishing the correlation.

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

(a) The operating parameter(s) used to determine the VOC emission rate.

(b) The 12-month rolling total VOC emission rate in tons/year determined monthly.

PLANT 64 – HYDROGEN II PLANT

EMISSION POINTS BH-231 AND BH-232

Beginning upon certification of construction for the PBOP project, the permittee is authorized to emit air contaminants from the Hydrogen II Plant (Plant 64), including Emission Point BH-231, the 730 MMBtu/hr Reformer Furnace (Ref.: F-6410), and Emission Point BH-232, the 217 MMBtu/hr Natural Gas Turbine (Ref.: KGT-6410). The Reformer Furnace burns refinery fuel gas/natural gas and products of combustion from the Turbine and vents these combustion emissions through three stacks. The Natural Gas Turbine does have a bypass stack that it may vent to during low hydrogen plant loads, startups, shutdowns, and upsets.

The existing emission limits for the furnace and turbine are being combined to better represent normal operating conditions. There are no modifications taking place in the Hydrogen II Plant. With the exception of PM/PM_{10}, the following emission limits are effective upon certification of construction for PBOP: The PM/PM_{10} limit is effective upon permit issuance.

EMISSIONS LIMITS[1]

Particulate Matter/PM_{10}	10.65 lb/hr (3-hr rolling average) and 21.80 tons/year (12-month rolling total)
Sulfur Dioxide	46.00 lb/hr (24-hr rolling average)
Nitrogen Oxides	122.21 lb/hr (3-hr rolling average) and 459.9 tons/year (12-month rolling total)
Carbon Monoxide	102.56 lb/hr (3-hr rolling average) and 141.7 tons/year (12-month rolling total)

[1] The emission limits above are the combined limits for emissions from both Emission Points BH-231 and BH-232. Emission limits are based upon all turbine emissions passing through the furnace uncontrolled.

FUEL RESTRICTION FOR BH-231

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart J – Petroleum Refineries

For Emission Point BH-231, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries* (40 CFR Part 60, Subpart J) and the applicable *General Provisions* (40 CFR Part 60, Subpart A).

Sulfur Dioxide/H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf), based on a 3-hour rolling average. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph. (Ref. 40 CFR 60.104(a)(1))

NSPS Subpart GG – Stationary Gas Turbines

For Emission Point BH-232, the permittee is subject to and shall comply with the *New Source Performance Standards for Stationary Gas Turbines* (40 CFR Part 60, Subpart GG) and the applicable *General Provisions* (40 CFR Part 60, Subpart A).

Nitrogen Oxides Standard:
For Emission Point BH-232, the permittee shall not cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150*(14.4/Y) + F$$

where:

STD = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).
Y = manufacturer's rated heat rate at manufacturer's rated peak load (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kJ/W-hr.
F = NO_x emission allowance for fuel-bound nitrogen as defined in §60.332(a)(4).

(Ref.: 40 CFR 60.332(a)(2))

Sulfur Dioxide Standard:
For Emission Point BH-232, the permittee shall not burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight. (Ref.: 40 CFR 60.333(b))

INITIAL COMPLIANCE DEMONSTRATION

Within 180 days upon certification of construction for the base oil project, the permittee shall demonstrate initial compliance with the emission limits and standards for the following pollutants by stack testing in accordance with the specified method(s).

Particulate Matter	EPA Test Methods 1-5 (40 CFR Part 60, Appendix A)
Nitrogen Oxides	EPA Test Method 7, 7A, or 7E (40 CFR Part 60, Appendix A)
Carbon Monoxide	EPA Test Method 10 (40 CFR Part 60, Appendix A)

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate the furnace and turbine as close to their maximum rated capacity as operating conditions allow. The turbine shall be venting all combustion emissions to the furnace. The stack test(s) shall be conducted on all three furnace stacks concurrently.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

Within 180 days upon certification of construction for the PBOP Project, the permittee shall demonstrate through calculations and/or actual data that venting more than 50% of the turbine exhaust through the bypass stack would cause upset conditions at the furnace due to insufficient excess air. This demonstration shall be submitted to DEQ in conjunction with the stack test report required above.

PLANT 67 – ULTRA-LOW SULFUR DIESEL (ULSD) HYDROFINER

EMISSION POINT BK-261

Beginning upon permit issuance, the permittee is authorized to modify air emissions equipment and emit air contaminants from Emission Point BK-261, the 40 MMBtu/hr Hydrofiner Feed Furnace (Ref. F-6701), located in the ULSD Hydrofiner Plant (Plant 67). The heater is equipped with an Ultra Low-NO_x Burner for the reduction of NO_x emissions. Modifications to the furnace may include replacing the forced draft fan and air preheater with an induced draft fan.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS[1]

Sulfur Dioxide	2.46 lb/hr (24-hr rolling average)
Nitrogen Oxides	0.060 lb/MMBtu (30-day rolling average, determined daily, BACT Limit)[2], not to exceed 2.40 lb/hr (3-hr rolling average, determined hourly) and 10.51 tons/year (12-month rolling total, determined monthly)
Carbon Monoxide	4.94 lb/hr (3-hr rolling average, determined hourly) and 14.44 tons/year (12-month rolling total, determined monthly)

[1] The permittee shall comply with the emission limits above upon certification of construction for the physical modifications to the furnace or upon certification of construction for the PBOP Project, whichever is first.

[2] The BACT limit shall only be applicable upon certification of construction for physical modifications to the furnace.

FUEL RESTRICTION

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart J – Petroleum Refineries*

For Emission Point BK-261, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries* (40 CFR Part 60, Subpart J) and the applicable *General Provisions* (40 CFR Part 60, Subpart A).

Sulfur Dioxide/H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf), based on a 3-hour rolling average. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph. (Ref. 40 CFR 60.104(a)(1))

*** Should the permittee modify Emission Point BK-261 in such a manner that constitutes a modification as defined in 40 CFR 60.14, Emission Point BK-261 will become subject to the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced after May 14, 2007* (40 CFR Part 60, Subpart Ja). The permittee shall comply with the emission limitations of this Subpart on and after the date on which the initial performance test is completed, but not later than 60 days after achieving the maximum production rate or 180 days after initial startup of the modified unit, whichever comes first. (Ref.: 40 CFR 60.102a(a)) The permittee shall also notify MDEQ of the specific monitoring provisions of §60.107a with which he intends to comply. This notification shall be submitted with the notification of initial startup required by §60.7(a)(3). (Ref.: 40 CFR 60.108a(b))**

INITIAL COMPLIANCE DEMONSTRATION

Within 60 days after achieving the maximum production rate at which Emission Point CK-003 will be operated, but not later than 180 days after modifications to BK-261, the permittee shall demonstrate initial compliance with the emission limits and standards for the following pollutants by stack testing in accordance with the specified method(s).

Nitrogen Oxides	EPA Test Method 7, 7A, or 7E (40 CFR Part 60, Appendix A)
Carbon Monoxide	EPA Test Method 10A (40 CFR Part 60, Appendix A)

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate the furnace as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The

DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device. The span value for this instrument shall be 425 mg/dscm H_2S. Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned. The H_2S continuous monitoring system shall meet the applicable monitoring requirements of §60.13. The permittee shall use Performance Specification 7 for performance evaluations for the H_2S monitor required by §60.13(c). EPA Test Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations. (Ref.: 40 CFR 60.105(a)(4))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-001 - EQUIPMENT LEAKS

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-001, equipment leaks from the Isodewaxing/Hydrofinishing (IDW/HDF) Plant (Plant 82).

The air emissions equipment shall be constructed to comply with the design criteria specified in the application to construct and the requirements specified below.

NSPS Subpart GGGa – Equipment Leaks of VOC in Petroleum Refineries

For Emission Point CK-001, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards (NSPS) for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006* (40 CFR Part 60, Subpart GGGa), and the *General Provisions* (40 CFR Part 60, Subpart A).

The provisions of this subpart apply to affected facilities in petroleum refineries for which construction, reconstruction, or modification commences after November 7, 2006. A compressor is an affected facility, and the group of all equipment defined in §60.591a within a process unit is an affected facility. (Ref.: 40 CFR 60.590a(a)-(b))

MACT Subpart CC – Petroleum Refineries

For Emission Point CK-001, the permittee is subject to and shall comply with the applicable requirements of the *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries* (40 CFR Part 63, Subpart CC) and the applicable requirements of the *General Provisions* (40 CFR Part 63, Subpart A) as summarized in Table 6 of the appendix to 40 CFR Part 63, Subpart CC. The permittee shall comply with Subpart CC by complying with the requirements of 40 CFR Part 60, Subpart GGGa. (Ref.: 40 CFR 63.640(p)(2))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-002 - WASTEWATER

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-002, the wastewater system in the IDW/HDF Plant (Plant 82).

The air emissions equipment shall be constructed to comply with the design criteria specified in the application to construct and the requirements specified below.

NSPS Subpart QQQ – VOC from Petroleum Refinery Wastewater Systems

For Emission Point CK-002, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards (NSPS) for VOC Emissions from Petroleum Refinery Wastewater Systems* (40 CFR Part 60, Subpart QQQ), and the *General Provisions* (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.690(a))

NESHAP Subpart FF – Benzene Waste Operations

For Emission Point CK-002, the permittee is subject to and shall comply with the applicable requirements of the *National Emission Standard for Benzene Waste Operations* (40 CFR Part 61, Subpart FF). (Ref.: 40 CFR 61.340)

MACT Subpart CC – Petroleum Refineries

For Emission Point CK-002, the permittee is subject to and shall comply with the applicable requirements of the *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries* (40 CFR Part 63, Subpart CC) and the applicable requirements of the *General Provisions* (40 CFR Part 63, Subpart A) as summarized in Table 6 of the appendix to 40 CFR Part 63, Subpart CC. (Ref.: 40 CFR 63.640)

Any Group 1 wastewater stream managed in a piece of equipment that is also subject to 40 CFR Part 60, Subpart QQQ, shall comply only with 40 CFR Part 63, Subpart CC. (Ref.: 40 CFR 63.640(o)(1))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLAN

EMISSION POINT CK-003

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-003, the 51.63 MMBtu/hr Lube Hydrocracker (HCR) Feed Heater (Ref. F-8210), located in the IDW/HDF Plant (Plant 82). The heater is equipped with Ultra Low-NO_x Burners for the reduction of NO_x emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS

Sulfur Dioxide	3.17 lb/hr (24-hr rolling average)
Nitrogen Oxides	0.030 lb/MMBtu (12 month rolling average, BACT Limit), not to exceed 2.32 lb/hr (3-hr rolling average) and 6.78 tons/year (12-month rolling total)
Carbon Monoxide	2.86 lb/hr (3-hr rolling average) and 8.35 tons/year (12-month rolling total)

FUEL RESTRICTION

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart Ja – Petroleum Refineries

For Emission Point CK-003, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H_2S in

excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis. (Ref.: 40 CFR 60.102a(g)(1)(ii))

Nitrogen Oxides Standard:
The permittee shall not discharge to the atmosphere any emissions of NO_x in excess of 40 ppmv (dry basis, corrected to 0 percent excess air) determined daily on a 30-day rolling average basis. (Ref.: 40 CFR 60.102a(g)(2)(i)(A))

Work Practice Standard:
The permittee shall conduct a root cause analysis and a corrective action analysis for each exceedance of the short term emission limit (i.e., 162 ppmv) if the SO_2 discharge to the atmosphere is 227 kg (500 lb) greater than the amount that would have been emitted if the emission limits had been met during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(2))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(2). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

PERFORMANCE TESTS

The permittee shall conduct a performance test to demonstrate initial compliance with each applicable emission limit of NSPS Subpart Ja according to the requirements of §60.8, using the test methods specified in §60.104a(i) and (j). The notification requirements of §60.8(d) apply to the initial performance test, but does not apply to performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments. (Ref.: 40 CFR 60.104a(a))

Performance tests are not required for demonstrating compliance with the H_2S limit if the fuel gas combustion device is added to a common source of fuel gas that previously demonstrated compliance with Subpart Ja. (Ref.: 40 CFR 60.104a(j)(4)(iv))

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H_2S in the fuel gases before being burned in any fuel gas combustion device. The permittee shall install, operate, and maintain each H_2S monitor in accordance with §60.107a(a)(2)(i)-(iii). Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately

represents the concentration of H_2S in the fuel gas being burned in the respective fuel gas combustion device. (Ref.: 40 CFR 60.107a(a)(2))

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

Nitrogen Oxides:
To demonstrate compliance with NSPS Subpart Ja, the permittee shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of NOx emissions into the atmosphere according to the requirements §60.107(c)(1) through (5). (Ref.: 40 CFR 60.107a(c)(6))

The permittee shall use the flue gas NOx and O_2 concentrations obtained from the CEMS required by Subpart Ja, along with the fuel gas firing rates, to demonstrate compliance with the NO_x emission limits expressed as lb/MMBtu, lb/hr, and tons/year.

Carbon Monoxide:
To demonstrate initial compliance with the CO emission limits, the permittee shall conduct a stack test within 60 days of achieving the maximum production rate for PBOP but no later than 180 days after initial startup of CQ-003 using the following test method: EPA Test Method 10A (40 CFR Part 60, Appendix A). For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

Nitrogen Oxides:
The permittee shall maintain records of the following:

(a) All CEMS data, fuel gas combustion records, and flue gas data used to calculate the lb/MMBtu and lb/hr emission rates.
(b) The rolling 12 month average NO_x emissions calculated monthly in units of lb/MMBtu.

(c) The rolling 3-hour average NO_x emissions calculated hourly in units of lb/hr.

(d) The rolling 12-month NO_x emissions calculated monthly in units of tons/year.

NSPS Subpart Ja Recordkeeping:
The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-004

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-004, the 86.00 MMBtu/hr Feed Preparation Unit (FPU) Vacuum Column Feed Heater (Ref. F-8220), located in the IDW/HDF Plant (Plant 82). The heater is equipped with an Ultra Low-NO_x Burner for the reduction of NO_x emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS

Sulfur Dioxide	5.29 lb/hr (24-hr rolling average)
Nitrogen Oxides	0.030 lb/MMBtu (12 month rolling average, BACT Limit), not to exceed 3.87 lb/hr (3-hr rolling average) and 11.30 tons/year (12-month rolling total)
Carbon Monoxide	19.06 lb/hr (3-hr rolling average) and 20.87 tons/year (12-month rolling total)

FUEL RESTRICTION

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart Ja – Petroleum Refineries

For Emission Point CK-004, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H_2S in

excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis. (Ref.: 40 CFR 60.102a(g)(1)(ii))

Nitrogen Oxides Standard:
The permittee shall not discharge to the atmosphere any emissions of NO_x in excess of 40 ppmv (dry basis, corrected to 0 percent excess air) determined daily on a 30-day rolling average basis. (Ref.: 40 CFR 60.102a(g)(2)(i)(A))

Work Practice Standard:
The permittee shall conduct a root cause analysis and a corrective action analysis for each exceedance of the short term emission limit (i.e., 162 ppmv) if the SO_2 discharge to the atmosphere is 227 kg (500 lb) greater than the amount that would have been emitted if the emission limits had been met during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(2))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(2). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

PERFORMANCE TESTS

The permittee shall conduct a performance test to demonstrate initial compliance with each applicable emission limit of NSPS Subpart Ja according to the requirements of §60.8, using the test methods specified in §60.104a(i) and (j). The notification requirements of §60.8(d) apply to the initial performance test, but does not apply to performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments. (Ref.: 40 CFR 60.104a(a))

Performance tests are not required for demonstrating compliance with the H_2S limit if the fuel gas combustion device is added to a common source of fuel gas that previously demonstrated compliance with Subpart Ja. (Ref.: 40 CFR 60.104a(j)(4)(iv))

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H_2S in the fuel gases before being burned in any fuel gas combustion device. The permittee shall install, operate, and maintain each H_2S monitor in accordance with §60.107a(a)(2)(i)-(iii). Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately

represents the concentration of H_2S in the fuel gas being burned in the respective fuel gas combustion device. (Ref.: 40 CFR 60.107a(a)(2))

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

Nitrogen Oxides:
To demonstrate compliance with NSPS Subpart Ja, the permittee shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of NOx emissions into the atmosphere according to the requirements §60.107(c)(1) through (5). (Ref.: 40 CFR 60.107a(c)(6))

The permittee shall use the flue gas NOx and O_2 concentrations obtained from the CEMS required by Subpart Ja, along with the fuel gas firing rates, to demonstrate compliance with the NO_x emission limits expressed as lb/MMBtu, lb/hr, and tons/year.

Carbon Monoxide:
To demonstrate initial compliance with the CO emission limits, the permittee shall conduct a stack test within 60 days of achieving the maximum production rate for PBOP but no later than 180 days after initial startup of CQ-003 using the following test method: EPA Test Method 10A (40 CFR Part 60, Appendix A). For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

Nitrogen Oxides:
The permittee shall maintain records of the following:

(a) All CEMS data, fuel gas combustion records, and flue gas data used to calculate the lb/MMBtu and lb/hr emission rates.
(b) The rolling 12 month average NO_x emissions calculated month in units of lb/MMBtu.

(c) The rolling 3-hour average NO_x emissions calculated hourly in units of lb/hr.

(d) The rolling 12-month NO_x emissions calculated monthly in units of tons/year.

NSPS Subpart Ja Recordkeeping:
The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-005

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-005, the 44.00 MMBtu/hr IDW/HDF Reactor Feed Heater (Ref. F-8250), located in the IDW/HDF Plant (Plant 82). The heater is equipped with Ultra Low-NO_x Burners for the reduction of NO_x emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS

Sulfur Dioxide	2.70 lb/hr (24-hr rolling average)
Nitrogen Oxides	0.030 lb/MMBtu (12 month rolling average, BACT Limit), not to exceed 1.98 lb/hr (3-hr rolling average) and 5.78 tons/year (12-month rolling total)
Carbon Monoxide	2.44 lb/hr (3-hr rolling average) and 7.12 tons/year (12-month rolling total)

FUEL RESTRICTION

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart Ja – Petroleum Refineries

For Emission Point CK-005, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H_2S in

excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis. (Ref.: 40 CFR 60.102a(g)(1)(ii))

Nitrogen Oxides Standard:
The permittee shall not discharge to the atmosphere any emissions of NO_x in excess of 40 ppmv (dry basis, corrected to 0 percent excess air) determined daily on a 30-day rolling average basis. (Ref.: 40 CFR 60.102a(g)(2)(i)(A))

Work Practice Standard:
The permittee shall conduct a root cause analysis and a corrective action analysis for each exceedance of the short term emission limit (i.e., 162 ppmv) if the SO_2 discharge to the atmosphere is 227 kg (500 lb) greater than the amount that would have been emitted if the emission limits had been met during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(2))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(2). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

PERFORMANCE TESTS

The permittee shall conduct a performance test to demonstrate initial compliance with each applicable emission limit of NSPS Subpart Ja according to the requirements of §60.8, using the test methods specified in §60.104a(i) and (j). The notification requirements of §60.8(d) apply to the initial performance test, but does not apply to performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments. (Ref.: 40 CFR 60.104a(a))

Performance tests are not required for demonstrating compliance with the H_2S limit if the fuel gas combustion device is added to a common source of fuel gas that previously demonstrated compliance with Subpart Ja. (Ref.: 40 CFR 60.104a(j)(4)(iv))

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H_2S in the fuel gases before being burned in any fuel gas combustion device. The permittee shall install, operate, and maintain each H_2S monitor in accordance with §60.107a(a)(2)(i)-(iii). Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately

represents the concentration of H_2S in the fuel gas being burned in the respective fuel gas combustion device. (Ref.: 40 CFR 60.107a(a)(2))

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

Nitrogen Oxides:
To demonstrate compliance with NSPS Subpart Ja, the permittee shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of NOx emissions into the atmosphere according to the requirements §60.107(c)(1) through (5). (Ref.: 40 CFR 60.107a(c)(6))

The permittee shall use the flue gas NOx and O_2 concentrations obtained from the CEMS required by Subpart Ja, along with the fuel gas firing rates, to demonstrate compliance with the NO_x emission limits expressed as lb/MMBtu, lb/hr, and tons/year.

Carbon Monoxide:
To demonstrate initial compliance with the CO emission limits, the permittee shall conduct a stack test within 60 days of achieving the maximum production rate for PBOP but no later than 180 days after initial startup of CQ-003 using the following test method: EPA Test Method 10A (40 CFR Part 60, Appendix A). For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

Nitrogen Oxides:
The permittee shall maintain records of the following:

(a) All CEMS data, fuel gas combustion records, and flue gas data used to calculate the lb/MMBtu and lb/hr emission rates.
(b) The rolling 12 month average NO_x emissions calculated monthly in units of lb/MMBtu.
(c) The rolling 3-hour average NO_x emissions calculated hourly in units of lb/hr.

(d) The rolling 12-month NO_x emissions calculated monthly in units of tons/year.

NSPS Subpart Ja Recordkeeping:
The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-006

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-006, the 70.13 MMBtu/hr IDW/HDF Vacuum Column Feed Heater (Ref. F-8280), located in the IDW/HDF Plant (Plant 82). The heater is equipped with Ultra Low-NO_x Burners for the reduction of NO_x emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSIONS LIMITS

Sulfur Dioxide	4.31 lb/hr (24-hr rolling average)
Nitrogen Oxides	0.030 lb/MMBtu (12 month rolling average, BACT Limit), not to exceed 3.16 lb/hr (3-hr rolling average) and 9.21 tons/year (12-month rolling total)
Carbon Monoxide	3.89 lb/hr (3-hr rolling average) and 11.34 tons/year (12-month rolling total)

FUEL RESTRICTION

Fuels other than refinery fuel gas and natural gas are prohibited.

NSPS Subpart Ja – Petroleum Refineries

For Emission Point CK-006, the permittee is subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

H_2S Standard:
The permittee shall not burn in any fuel gas combustion device any fuel that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H_2S in

excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis. (Ref.: 40 CFR 60.102a(g)(1)(ii))

Nitrogen Oxides Standard:
The permittee shall not discharge to the atmosphere any emissions of NO_x in excess of 40 ppmv (dry basis, corrected to 0 percent excess air) determined daily on a 30-day rolling average basis. (Ref.: 40 CFR 60.102a(g)(2)(i)(A))

Work Practice Standard:
The permittee shall conduct a root cause analysis and a corrective action analysis for each exceedance of the short term emission limit (i.e., 162 ppmv) if the SO_2 discharge to the atmosphere is 227 kg (500 lb) greater than the amount that would have been emitted if the emission limits had been met during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(2))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(2). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

PERFORMANCE TESTS

The permittee shall conduct a performance test to demonstrate initial compliance with each applicable emission limit of NSPS Subpart Ja according to the requirements of §60.8, using the test methods specified in §60.104a(i) and (j). The notification requirements of §60.8(d) apply to the initial performance test, but does not apply to performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments. (Ref.: 40 CFR 60.104a(a))

Performance tests are not required for demonstrating compliance with the H_2S limit if the fuel gas combustion device is added to a common source of fuel gas that previously demonstrated compliance with Subpart Ja. (Ref.: 40 CFR 60.104a(j)(4)(iv))

MONITORING REQUIREMENTS

Sulfur Dioxide:
The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H_2S in the fuel gases before being burned in any fuel gas combustion device. The permittee shall install, operate, and maintain each H_2S monitor in accordance with §60.107a(a)(2)(i)-(iii). Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately

represents the concentration of H_2S in the fuel gas being burned in the respective fuel gas combustion device. (Ref.: 40 CFR 60.107a(a)(2))

See Part III for requirements regarding the method of compliance demonstration for sulfur dioxide.

Nitrogen Oxides:
To demonstrate compliance with NSPS Subpart Ja, the permittee shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0 percent excess air) of NOx emissions into the atmosphere according to the requirements §60.107(c)(1) through (5). (Ref.: 40 CFR 60.107a(c)(6))

The permittee shall use the flue gas NOx and O_2 concentrations obtained from the CEMS required by Subpart Ja, along with the fuel gas firing rates, to demonstrate compliance with the NO_x emission limits expressed as lb/MMBtu, lb/hr, and tons/year.

Carbon Monoxide:
To demonstrate initial compliance with the CO emission limits, the permittee shall conduct a stack test within 60 days of achieving the maximum production rate for PBOP but no later than 180 days after initial startup of CQ-003 using the following test method: EPA Test Method 10A (40 CFR Part 60, Appendix A). For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

Nitrogen Oxides:
The permittee shall maintain records of the following:

(a) All CEMS data, fuel gas combustion records, and flue gas data used to calculate the lb/MMBtu and lb/hr emission rates.
(b) The rolling 12 month average NO_x emissions calculated monthly in units of lb/MMBtu.

(c) The rolling 3-hour average NO_x emissions calculated hourly in units of lb/hr.

(d) The rolling 12-month NO_x emissions calculated monthly in units of tons/year.

NSPS Subpart Ja Recordkeeping:
The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-007

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-007, the IDW/HDF Cooling Tower (Ref.: E-IDWCT1/2), located in the IDW/HDF Plant (Plant 82). Emission Point CK-007 is equipped with high-efficiency drift eliminators to reduce particulate emissions.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMIT

Volatile Organic Compounds	0.7 lb/MM gal of circulated water (12-month rolling average), not to exceed 1.47 tons/year (12-month rolling total)

AIR POLLUTION CONTROL EQUIPMENT

The permittee shall equip Emission Point CK-007 with high-efficiency drift eliminators guaranteed by the manufacturer for a total liquid drift not to exceed 0.001 percent of the circulating water flow rate.

MACT Subpart CC – Petroleum Refineries

Emission Point CK-007 is subject to and shall comply with the Heat Exchange System sampling, monitoring and repair requirements found in the National Emission Standards for Hazardous Air Pollutants as described in 40 CFR 63, Subpart CC – National Emission Standards for Hazardous Air Pollutions from Petroleum Refineries and the General Provisions (40 CFR 63, Subpart A).

MONITORING REQUIREMENTS

The permittee shall comply with the applicable monitoring elements for sample location, method, frequency, leak action level and delay of repair as prescribed in 40 CFR 63, Subpart CC. If a leak is detected, the permittee shall repair the leak as soon as practicable, but no later than 45 days. The repair may be delayed if the conditions described under 40 CFR 63.654(f) are met. (Ref.: 40 CFR 63.654)

To demonstrate compliance with the lb/MM gal and tons/year VOC emission limits, the permittee shall perform the following monitoring:

The permittee shall continuously monitor the total inlet water flow rate to the cooling tower in gallons per minute.

The permittee shall perform monthly monitoring of the VOC content at the common header to the cooling tower per an EPA-approved test method for strippable VOC's listed in 40 CFR Part 136 or an approved alternative. The test method shall have a minimum detection level of no greater than 10 ppbw. The permittee shall assume that all of the VOC's are stripped from the inlet water, unless the permittee chooses to also perform concurrent monthly monitoring of the outlet water to demonstrate compliance with the emission limitations. The permittee shall take a minimum of three sets of samples at the header and outlet (if applicable) and average the resulting concentrations.

If after 12 consecutive months of VOC monitoring, no strippable VOC's are detected in the inlet water, the frequency of monitoring may be reduced to quarterly. If after 4 consecutive quarters of VOC monitoring, no strippable VOC's are detected in the inlet water, the frequency of monitoring may be reduced to yearly. Should any quarterly or yearly monitoring result in a strippable VOC concentration above the detection limit, the permittee shall resume monthly monitoring for at least 12 consecutive months as set forth above.

Within 180 days after initial startup of the cooling tower, the permittee shall implement and submit to DEQ a written plan for establishing the VOC concentration that indicates a leak, which shall be no greater than 84 ppbw, and for determining the location of the source(s) of the leak. The plan shall also specify a schedule for repairing the leak(s) at the earliest opportunity, but no later than the next scheduled shutdown of the process unit(s) in which the leak(s) occurs.

RECORDKEEPING REQUIREMENTS

The permittee shall record the monthly average VOC concentration and the total monthly cooling water flow, as well as the monthly VOC emission rate in lb/MM gal of circulated water and tons/year (12-month rolling total). The 12-month rolling total VOC emission rate for each month shall be calculated by summing the results of the average VOC concentration measured for each month of the 12-month period multiplied by the total cooling water flow for that month.

The permittee shall retain records of the design and manufacturer-guaranteed maximum total liquid drift of the cooling tower. These records shall be maintained on site and made available for review by DEQ personnel.

.

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-008

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-008, the Plant 82 Oil-Water Separator, located in the IDW/HDF Plant (Plant 82). The Oil-Water Separator is enclosed with emissions vented to two carbon adsorbers in series.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

NSPS Subpart QQQ – Equipment Leaks of VOC in Petroleum Refineries

For Emission Point CK-008, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards (NSPS) for VOC Emissions from Petroleum Refinery Wastewater Systems* (40 CFR Part 60, Subpart QQQ), and the *General Provisions* (40 CFR Part 60, Subpart A). The provisions of this subpart apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction is commenced after May 4, 1987. An individual drain system, an oil-water separator, and an aggregate facility are each separate affected facilities. (Ref.: 40 CFR 60.690(a))

NESHAP Subpart FF – Benzene Waste Operations

For Emission Point CK-008, the permittee is subject to and shall comply with the applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*, and the *General Provisions* (40 CFR Part 61, Subpart A). The provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries. Emission Point CK-008 must meet the applicable standards for oil-water separators in §61.347.

MACT Subpart CC – Petroleum Refineries

For Emission Point CK-008, the permittee is subject to and shall comply with 40 CFR Part 63, Subpart CC – *National Emission Standards for HAPs from Petroleum Refineries*. As a Group 1 wastewater stream, the permittee shall comply with Subpart CC by complying with the requirements of §§ 61.340 through 61.355 of 40 CFR Part 61, Subpart FF. (Ref.: 40 CFR 63.647)

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINT CK-093

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point CK-093, a 621,600-gallon desalter effluent water storage tank (Ref.: T-8293), located in Plant 82. Emission Point CK-093 is equipped with an external floating roof.

NSPS Subpart Kb – Volatile Organic Liquid Storage Vessels

For Emission Point CK-093, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* (40 CFR Part 60, Subpart Kb) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.110b(a))

For Emission Point CK-093, the permittee shall equip the storage vessel with an external floating roof meeting the specifications in §60.112b(a)(2).

NESHAP Subpart FF – Benzene Waste Operations

For Emission Point CK-093, the permittee is subject to and shall comply with the applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*, and the *General Provisions* (40 CFR Part 61, Subpart A). Emission Point CK-093 shall meet the alternative standards for tanks found in 40 CFR 61.351(a)(2), which requires complying with the Subpart Kb requirements of §60.112b(a)(2).

MACT Subpart CC – Petroleum Refineries

For Emission Point CK-093, the permittee is subject to and shall comply with 40 CFR Part 63, Subpart CC – *National Emission Standards for HAPs from Petroleum Refineries*. As a Group 1 wastewater stream, the permittee shall comply with Subpart CC by complying with the requirements of §§ 61.340 through 61.355 of 40 CFR Part 61, Subpart FF. (Ref.: 40 CFR 63.647)

PLANT 82 – ISODEWAXING/HYDROFINISHING (IDW/HDF) PLANT

EMISSION POINTS CK-603 and CK-607

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Points CK-603 and CK-607, two wastewater sumps (Ref. P-82603 and P-82607, respectively), located in the IDW/HDF Plant (Plant 82). The wastewater sumps are enclosed with emissions from each sump vented to dedicated dual carbon canisters.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

NSPS Subpart QQQ – Equipment Leaks of VOC in Petroleum Refineries

For Emission Points CK-603 and CK-607, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards (NSPS) for VOC Emissions from Petroleum Refinery Wastewater Systems* (40 CFR Part 60, Subpart QQQ), and the *General Provisions* (40 CFR Part 60, Subpart A). The provisions of this subpart apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction is commenced after May 4, 1987. An individual drain system, an oil-water separator, and an aggregate facility are each separate affected facilities. (Ref.: 40 CFR 60.690(a))

NESHAP Subpart FF – Benzene Waste Operations

For Emission Points CK-603 and CK-607, the permittee is subject to and shall comply with the standards for individual drain systems found in §61.346 of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*, and the *General Provisions* (40 CFR Part 61, Subpart A).

MACT Subpart CC – Petroleum Refineries

For Emission Points CK-603 and CK-607, the permittee is subject to and shall comply with 40 CFR Part 63, Subpart CC – *National Emission Standards for HAPs from Petroleum Refineries*. As a Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR Part 60, Subpart QQQ, the permittee is required to comply only with Subpart CC. (Ref.: 40 CFR 63.640(o)(1))

Each Group 1 wastewater stream shall comply with the requirements of §§61.340 through 61.355 of 40 CFR Part 61, Subpart FF for each process wastewater stream that meets the definition in § 63.641. (Ref.: 40 CFR 63.647(a))

PLANT 83 – COKER PLANT

EMISSION POINT BQ-003 - EQUIPMENT LEAKS FROM SOUR GAS TREATING

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment and emit air contaminants from Emission Point BQ-003, equipment leaks from the Sour Gas Treating Section, located in Plant 83.

The air emissions equipment shall be constructed to comply with the design criteria specified in the application to construct and the requirements specified below.

NSPS Subpart GGGa – Equipment Leaks of VOC in Petroleum Refineries

For the Sour Gas Treating Section, the permittee is subject to and shall comply with the applicable requirements of the *New Source Performance Standards (NSPS) for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006* (40 CFR Part 60, Subpart GGGa), and the *General Provisions* (40 CFR Part 60, Subpart A). (Ref.: 40 CFR 60.590a(a)-(b))

MACT Subpart CC – Petroleum Refineries

For the Sour Gas Treating Section, the permittee is subject to and shall comply with the applicable requirements of the *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries* (40 CFR Part 63, Subpart CC) and the applicable requirements of the *General Provisions* (40 CFR Part 63, Subpart A) as summarized in Table 6 of the appendix to 40 CFR Part 63, Subpart CC. The permittee shall comply with Subpart CC by complying with the requirements of 40 CFR Part 60, Subpart GGGa. (Ref.: 40 CFR 63.640(p)(2))

PLANT 86 – HYDROGEN III PLANT

EMISSION POINT BT-080

Beginning upon certification of construction for the base oil project, the permittee is authorized to emit air contaminants from Emission Point BT-080, the Deaerator Vent (Ref.: C-8680), located in the Hydrogen III Plant (Plant 86). To make emissions reductions from this source creditable, a federally enforceable annual limit is imposed below.

EMISSIONS LIMITS

Volatile Organic Compounds	50.00 tons/year (12-month rolling total, determined monthly)

INITIAL COMPLIANCE DEMONSTRATION

Within 90 days of certifying construction for the base oil project, the permittee shall demonstrate initial compliance with the emission limits for the following pollutant by stack testing in accordance with the specified method(s).

Volatile Organic Compounds (expressed as methanol)	EPA Test Method 25 (40 CFR Part 60, Appendix A)

All test methods specified above shall be those versions, or their approved equivalents, which are in effect upon permit issuance.

For the purpose of demonstrating initial compliance, the permittee shall operate the Hydrogen III Plant as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

MONITORING REQUIREMENTS

Within 180 days of certifying construction for the base oil project, the permittee shall submit a written plan for demonstrating compliance with the tons/year VOC emission limits. This monitoring plan shall be submitted to the Environmental Permits Division of DEQ and shall be implemented upon submission to the DEQ. The DEQ reserves the

right to comment on or request revisions to the plan. The plan shall include at minimum the following information:

(a) The operating parameter(s) to be monitored and the method and frequency of monitoring;

(b) The relationship, or correlation, between the monitored parameter(s) and the VOC emission rate;

(c) The calculations, stack test data, monitoring data, etc. used for establishing the correlation.

RECORDKEEPING REQUIREMENTS

In accordance with Condition 1 of Part III, the permittee shall record the following information.

(a) The operating parameter(s) used to determine the VOC emission rate.

(b) The 12-month rolling total VOC emission rate in tons/year determined monthly.

PLANTS 90, 91, AND 92 – SULFUR RECOVER UNITS IV, V, AND VI

EMISSION POINTS BW-014, BX-020, AND BY-025

Upon certification of construction with the oxygen enrichment project at Sulfur Recovery Units (SRUs) II and III, Emission Points BW-014, BX-020, and BY-025, the SRU IV Tail Gas Vent (Plant 90), SRU V Tail Gas Vent (Plant 91), and SRU VI Tail Gas Vent (Plant 92), respectively, shall comply with the applicable requirements of NSPS Subpart Ja.

MACT Subpart UUU – Petroleum Refineries: Sulfur Recovery Units

For Emission Points BW-014, BX-020, and BY-025, the permittee is subject to and shall comply with the *National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units* (40 CFR Part 63, Subpart UUU) and the applicable *General Provisions* as specified in Table 44 of this subpart. These emission points are considered existing affected sources. (Ref.: 40 CFR 63.1562(b)(3) and (e) and 40 CFR 63.1577)

NSPS Subpart Ja – Petroleum Refineries

Upon certification of construction with the oxygen enrichment project at Sulfur Recovery Units (SRUs) II and III, SRU's IV, V, and VI shall be subject to and shall comply with the *New Source Performance Standards for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007* (40 CFR Part 60, Subpart Ja) and the applicable *General Provisions* (40 CFR Part 60, Subpart A). The permittee shall comply with the emission limitations of this subpart on or after the date on which the initial performance test, required by §60.8, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after initial startup, whichever comes first. (Ref.: 40 CFR 60.100a and 60.102a(a))

Emission Standards and Work Practice Standards

Reduced Sulfur and H_2S Standard for Reduction Control System Not Followed By Incineration:

The permittee shall not discharge or cause the discharge of any gases into the atmosphere in excess of 300 ppmv of reduced sulfur compounds and 10 ppmv of hydrogen sulfide (H_2S), each calculated as ppmv SO_2 (dry basis) at zero percent excess air. (Ref.: 40 CFR 60.102a(f)(1)(ii))

Work Practice Standard:

The permittee shall conduct a root cause analysis and a corrective action analysis each time the SO_2 emissions are more than 227 kg/day (500 lb/day) greater than the amount that would have been emitted if the reduced sulfur concentration was equal to the

applicable emission limit during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter. (Ref.: 40 CFR 60.103a(c)(3))

A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting the condition in §60.103a(c)(3). Except as provided in §60.103a(f) and (g), the permittee shall implement the corrective action(s) identified in the correction action analysis in accordance with the applicable requirements of paragraphs §60.103a(e)(1) through (3). (Ref.: 40 CFR 60.103a(d) and (e))

Monitoring Requirements

Reduced Sulfur and H_2S Monitoring for Reduction Control Systems Not Followed by Incineration:

The permittee shall install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration of reduced sulfur, H_2S, and O_2 emissions into the atmosphere. The reduced sulfur emissions shall be calculated as SO_2 (dry basis, zero percent excess air). The monitor shall comply with the requirements of §60.106a(a)(2)(i)-(ix). (Ref.: 40 CFR 60.106a(a)(2))

In place of the reduced sulfur monitor required in the paragraph above, the permittee shall install, calibrate, operate, and maintain an instrument using an air or O_2 dilution and oxidation system to convert any reduced sulfur to SO_2 for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of the total resultant SO_2. The monitor must include an O_2 monitor for correcting the data for excess O_2 and shall meet the requirements of §60.106a(a)(3)(i)-(vi). (Ref.: 40 CFR 60.106a(a)(3))

Periods of excess emissions are all 12-hour periods, calculated hourly as the arithmetic average of 12 contiguous 1-hour averages, during which the average concentration of reduced sulfur (as SO_2) as measured by the reduced sulfur continuous monitoring system or H_2S as measured by the H_2S continuous monitoring system exceeds the applicable emission limit (dry basis, zero percent excess air). (Ref.: 40 CFR 106a(b)(2) and (3))

NSPS Subpart Ja Recordkeeping:

The permittee shall comply with the notification, recordkeeping, and reporting requirements in § 60.7 and other requirements as specified in this section. (Ref.: 40 CFR 60.108a(a)

The permittee shall keep records of discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device. The applicable information required in §60.108a(c)(6)(i)-(xi) shall be recorded no later than 45 days following the end of a discharge exceeding the thresholds. (Ref.: 40 CFR 60.108a(c)(6))

REPORTING REQUIREMENTS

The permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of §60.7(c) except that the report shall contain the information specified in §60.108a(d)(1) through (7). (Ref.: 40 CFR 60.108a(d))

PART III – OTHER REQUIREMENTS

Records:

(1) The permittee shall maintain on-site records of all required monitoring data and support information required by this permit for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. These records shall be made available for review upon request from DEQ personnel.

Reporting Deviations:

(2) The permittee shall report any deviations from the permit requirements, including deviations attributable to upsets, within five (5) working days of such deviation. The report shall also include the cause of the deviation(s) and any corrective action(s) or preventive measure(s) taken. A copy of the report shall be maintained in accordance with Part III, Condition 1.

Semiannual Reports:

(3) The permittee shall submit semiannual reports of any required monitoring by September 30 for the preceding six-month period of January 1 through June 30, and by March 31 for the preceding six-month period of July 1 through December 31. All instances of deviations from permit requirements must be clearly identified in such reports and a responsible official must certify all required reports.

MACT Subpart CC – Petroleum Refineries

(4) The permittee is subject to and shall comply with the applicable requirements of the *National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries* (40 CFR Part 63, Subpart CC) and the applicable requirements of the *General Provisions* (40 CFR Part 63, Subpart A) as summarized in Table 6 of the appendix to 40 CFR Part 63, Subpart CC.

(a) This subpart applies to petroleum refining process units and to related emission points that are specified in paragraphs §63.640(c)(5) through (c)(7) that are located at a plant site that meet the criteria in §63.640(a)(1) and (a)(2). (Ref.: §63.640(a))

(b) For the purpose of this subpart, the affected source shall comprise all emission points, in combination, listed in §63.640(c)(1) through (c)(7) of this section that are located at a single refinery plant site. (Ref.: §63.640(c))

(c) The affected source subject to this subpart does not include the emission points listed in §63.640(d)(1) through (d)(5). (Ref.: §63.640(d))

NESHAP Subpart FF – Benzene Waste Operations

(5) The facility is subject to and shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP) as described in 40 CFR Part 61, Subpart FF – *National Emission Standard for Benzene Waste Operations*.

(a) The provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants, and petroleum refineries.

(b) The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in §61.340(a). The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed in §61.340(a).

(c) At each facility identified in §61.340(a) or (b), the following waste is exempt from the requirements of this subpart:

(1) Waste in the form of gases or vapors that is emitted from process fluids; and

(2) Waste that is contained in a segregated storm water sewer system.

(d) At each facility identified in §61.340(a) or (b), any gaseous stream form a waste management unit, treatment process, or wastewater treatment system routed to a fuel gas system, as defined in §61.341, is exempt from this subpart. No testing, monitoring, recordkeeping, or reporting is required under this subpart for any gaseous stream form a waste management unit, treatment process, or wastewater treatment unit routed to a fuel gas system.

Interim Recordkeeping of Actual SO_2 Emissions:

(6) Should the permittee certify construction for the oxygen enrichment project for any SRU prior to certifying construction for the RFG Sulfur Reduction Project, the permittee shall calculate and maintain a record of the actual monthly SO_2 emissions from those units affected by the oxygen enrichment project, as detailed in the PBOP permit application. Should the actual emissions in tons/year, as calculated on a 12-month rolling basis, exceed the baseline actual emissions reported in the application by 40 tons/year or more, the permittee shall notify the DEQ within 60 days of such determination. This recordkeeping shall be required until the permittee submits certification of construction for the RFG Sulfur Reduction Project and these records shall be maintained in accordance with Condition 1 of Part III.

Bellows-Seal Valves:

(7) For the new PBOP Plant (Plant 82, for any new valves being installed as part of the projects permitted herein, the permittee shall install bellows-seal valves for all valves two inches (2") and smaller in light liquid or gas VOC service.

Projected Actual Emissions Recordkeeping for Gasoline Loading:

(8) For Gasoline Loading Operations, including loading via pipeline, marine vessels, railcar, and truck, the permittee shall record the amount loaded and calculate the emissions of VOC each month. The permittee shall calculate and maintain a record of the annual VOC emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after startup of the PBOP Project. (Ref.: 40 CFR 52.21(r)(6)(iii))

(9) The permittee shall submit a report to the DEQ if the annual emissions, in tons per year, from the projects covered by this permit, exceed the baseline actual emissions (as documented in the project application), by a significant amount for any regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained in the PBOP Project application. Such report shall be submitted to the DEQ within 60 days after the end of such year. The report shall contain the following:

(a) The name, address, and telephone number of the major stationary source;

(b) The annual emissions as calculated pursuant to §52.21(r)(6)(iii); and

(c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as the why the emissions differ from the preconstruction projection).

(Ref.: 40 CFR 52.21(r)(6)(v))

(10) The permittee shall make the information required to be documented and maintained pursuant to §52.21(r)(6) available for review upon a request for inspection by DEQ of the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter. (Ref.: 40 CFR 52.21(r)(7))

Refinery-Wide Annual SO_2 Emission Limit for Refinery Fuel Gas Combustion:

(11) Upon certification of construction with the PBOP or the RFG Sulfur Project, whichever occurs first, the permittee shall limit total SO_2 emissions from all process heaters, furnaces, and boilers combusting RFG to 638.8 ton/year, as determined for each consecutive 12-month period (i.e., 12-month rolling total). Any previous annual ton/year SO_2 limits on these emission units shall be superseded by the refinery-wide limit. The 24-hr average short-term SO_2 emission limits for these emissions units shall remain unchanged.

SO_2 Monitoring and Recordkeeping:

(12) Upon certification of construction with the RFG Sulfur Reduction Project, the permittee shall install, calibrate, operate, and maintain the following instrumentation:

(a) An instrument for continuously monitoring and recording the concentration by volume (dry basis) of total sulfur in the fuel gases before being burned in any fuel gas combustion device, or

(b) An instrument for continuously monitoring and recording the concentration by volume (dry basis, 0 percent excess air) of SO_2 emissions into the atmosphere from a fuel gas combustion device. The monitor must include an O_2 monitor for correcting the data for excess air.

Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of total sulfur in the fuel gas being burned or SO_2 emissions from the stack.

(13) For each RFG combustion device, the permittee shall continue to monitor and record the hourly fuel rate (MMscf/hr). The permittee shall calculate and record the hourly SO_2 emission rate (lb/hr) and the rolling 24-hour average emission rate (lb/hr) for each combustion device to demonstrate compliance with the 24-hr rolling SO_2 limit. The emission rates shall be determined hourly based upon the hourly average total sulfur in the RFG and the amount of RFG combusted in each hour for each combustion device.

(14) On a refinery-wide basis, the permittee shall record the monthly total amount of RFG combusted and the total amount of RFG combusted per year (MMscf/yr) determined on a 12-month rolling total basis. The permittee shall calculate and record the monthly total SO_2 emission rate and the 12-month rolling total SO_2 emission rate in tons/year.

NO_x Reductions to Short-Term (lb/hr) Limits

(15) The following refinery fuel gas-burning emission units, including process heaters, furnaces, and boilers, are affected emission units that are not undergoing any physical or operational changes. They are included in this permit because short-term (i.e., lb/hr) NO_x emission limits will be established or modified for many emission units based upon emission rates used in the air quality analysis. The new or modified NO_x emission limit shall become effective upon certification of construction for the PBOP Project. No other pollutants are being affected with the exception of annual SO_2 limits, as addressed in Part III, Condition 11.

For the Emission Points in the following table, within 180 days after certification of construction with the PBOP Project, the permittee shall demonstrate initial

compliance with the NO_x emission limits by stack testing in accordance with EPA Test Method 7, 7A, or 7E (40 CFR Part 60, Appendix A), unless the emission unit already has a permitted CEMS operating for compliance demonstration. For the purpose of demonstrating initial compliance, the permittee shall operate the heater as close to its maximum rated capacity as operating conditions allow.

The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within sixty (60) days of completion of the required test(s).

Emission Point	Former Emission Point	Refinery ID	Description	Pollutant	Emission Limits[1]
AE-013	AA-011 & AA-012	F-1102 & F-1101	Two common stacks for the Vacuum Column Furnace with a rated capacity of 231 MMBtu/hr and the Atmospheric Column Furnace with a rated capacity of 380.6 MMBtu/hr	PM/PM_{10}	6.83 lb/hr, 19.96 tons/yr
				SO_2	37.59 lb/hr
				NO_x	74.92 lb/hr, 262.62 tons/yr
				CO	165.56 lb/hr, 193.38 tons/yr
AF-021		F-1201/1301/1302		NO_x	17.87 lb/hr, 60.2 tons/yr
AF-024		F-1304		NO_x	15.95 lb/hr, 48.2 tons/yr
AF-025		F-1305		NO_x	22.43 lb/hr, 85.4 tons/yr
AG-041	AA-041	F-1531	NHT I Feed pre-heater with a rated capacity of 65 MMBtu/hr	SO_2	4.00lb/hr
				NO_x	10.73 lb/hr, 42.7 tons/yr
AH-051	AA-051	F-1603	Fluidized-bed Catalytic Cracking (FCC) Catalyst Regenerator equipped with an electrostatic precipitator	PM/PM_{10}	111 lb/hr (3-hr rolling average), 121.50 tons/yr
				SO_2	500 lb/hr (3-hr rolling average), 153.50 tons/yr
				NO_x	150.00 lb/hr (3-hr rolling average), 255.0 tons/yr
				CO	588 lb/hr (1-hr average), 550.0 tons/yr
				Sulfuric Acid	47.36 lb/hr (3-hr rolling average), 7.05 tons/yr

Emission Point	Former Emission Point	Refinery ID	Description	Pollutant	Emission Limits[1]
				VOC	59.13 lb/hr (3-hr rolling average), 25.90 tons/yr
				Ammonia	21.0 lb/hr (24-hr block average), 92.0 tons/yr
				Hydrogen Cyanide	4.0 lb/hr (3-hr block average), 17.5 tons/yr
				Opacity	30% (6-minute average)
AM-111	AA-111	F-2201	Process heater with a rated capacity of 48 MMBtu/hr	PM/PM_{10}	0.436 lb/hr, 1.27 tons/yr
				SO_2	2.95 lb/hr
				NO_x	13.20 lb/hr, 46.25 tons/yr
BF-221	AA-221	F-6210	1st stage feed furnace with a rated capacity of 60 MMBtu/hr	SO_2	3.38 lb/hr
				NO_x	9.00 lb/hr, 31.54 tons/yr
BF-222	AA-222	F-6230	2nd stage feed furnace with a rated capacity of 55 MMBtu/hr	SO_2	3.38 lb/hr
				NO_x	8.25 lb/hr, 28.9 tons/yr
BK-261[2]	AA-261	F-6701	ULSD Hydrofiner Feed Furnace with a rated capacity of 40 MMBtu/hr	SO_2	2.46 lb/hr
				NO_x	2.40 lb/hr, 10.51 tons/yr
BP-511	AA-511	F-8110	Feed furnace No. 1 with a rated capacity of 65 MMBtu/hr	PM	0.005 lb/MMBtu heat input
				SO_2	4.00 lb/hr
				NO_x	12.19 lb/hr, 42.71 tons/yr
BP-512	AA-512	F-8120	Feed furnace No. 3 with a rated capacity of 65 MMBtu/hr	PM	0.005 lb/MMBtu heat input
				SO_2	4.00 lb/hr
				NO_x	12.19 lb/hr, 42.71 tons/yr
BP-513	AA-513	F-8130	Feed furnace No. 3 with a rated capacity of 65 MMBtu/hr	PM	0.005 lb/MMBtu heat input
				SO_2	4.00 lb/hr
				NO_x	12.19 lb/hr, 42.71 tons/yr
BR-531	AA-531	F-8400	Vacuum distillation feed furnace with a rated capacity of 275 MMBtu/hr	PM/PM_{10}	3.07 lb/hr, 8.97 tons/yr
				SO_2	16.90 lb/hr
				NO_x	33.69 lb/hr, 118.04 tons/yr
				CO	74.44 lb/hr, 86.95 tons/yr

Emission Point	Former Emission Point	Refinery ID	Description	Pollutant	Emission Limits[1]
				VOC	2.22 lb/hr, 6.49 tons/yr
BT-441	AA-541(A) & AA-541(B)	F-8620 & KGT-8650	Three stacks for a 780 MMBtu/hr process heater and a 270 MMBtu/hr gas turbine, which vents to the process heater	PM/PM_{10}	11.61 lb/hr, 33.91 tons/yr
				SO_2	49.32 lb/hr
				NO_x	154.88 lb/hr, 542. 60 tons/yr
				CO	270.26 lb/hr, 305.86 tons/yr

[1] The short-term, lb/hr, NO_x emission limits shall be expressed as a 3-hr rolling average; the TPY NO_x emission limits shall be expressed as a 12-month rolling total.
[2] Should the physical modifications not be made to Emission Point BK-261, the modified NO_x limit in this table shall become effective upon certification of construction for PBOP.

MACT Subpart DDDDD – Boilers and Process Heaters:

(16) The permittee is subject to 40 CFR Part 63, Subpart DDDDD, for existing, reconstructed, and new boilers and process heaters, as defined in §63.7575. The permittee shall comply with all applicable requirements of Subpart DDDDD by the compliance dates established in the final reconsidered rule.