STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

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

"Crude II NO_x Reduction Project Moderate Modification"

has been granted permission to construct air emissions equipment to comply with the 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.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: APR 2 0 2010

Permit No.: 1280-00058

2299 PER20100001

Part I.

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: APC-S-2, Section I.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.: APC-S-2, Section II.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.: APC-S-2, Section I.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.: APC-S-2, Section II.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.: APC-S-2, Section II.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.: APC-S-2, Section II.B.15(b))

8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-2, Section II.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.: APC-S-2, Section II.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.: APC-S-2, Section V.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 Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. (Ref.: APC-S-1, Section 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.: APC-S-2, Section V.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.: APC-S-2, Section II.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.: APC-S-2, Section XVI.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. APC-S-2, Section I.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.: APC-S-2, Section V.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.: APC-S-2, Section V.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 APC-S-2, Section XIII.G. (Ref.: APC-S-2, Section V.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.: APC-S-2, Section V.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.: APC-S-2, Section V.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.: APC-S-2, Section V.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.: APC-S-2, Section VI.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.: APC-S-2, Section V.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.: APC-S-2, Section V.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.: APC-S-2, Section V.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.: APC-S-2, Section V.D.2)

PART II

EMISSION LIMITATIONS, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

PLANT 61 – CRUDE II

EMISSION POINT BE-001

Upon completion of the fuel gas piping replacement, the permittee shall comply with the following requirements for Emission Point BE-001 (Crude II, Plant 61 Equipment Leaks).

EQUIPMENT LEAK DEFINITION

For equipment leak components in VOC service (as defined in §60.481a) in the Plant 61 refinery fuel gas system and LER II Offgas system located in Plant 61, the permittee shall use the following internal leak definitions for components in light liquid or gas/vapor service (as defined in §60.485a(e)),unless specified more stringent in an applicable federal standard:

(a) No greater than 500 ppmv VOC for each valve and pressure relief device.

(b) No greater than 2,000 ppmv VOC for each pump and compressor.

MONITORING REQUIREMENTS

In addition to any applicable federal requirements, the permittee shall monitor the components specified above in light liquid or gas/vapor service for leaks once per quarter using an approved gas analyzer conforming to the requirements of §60.485a(a)-(b). (Those valves meeting the definition of inaccessible or unsafe-to-monitor, as defined in §60.482-7a(g), or any equipment designated for no detectable emissions are excluded from this requirement.) Any equipment found to be leaking shall be tagged and repaired within 15 days after the leak is found. If the repair would require a unit shutdown, the repair may be delayed until a scheduled shutdown is identified for such repair. Repaired components shall be re-monitored within 15 days of being placed back into service.

For any equipment designated for no detectable emissions, the permittee shall conduct a compliance test in accordance with §60.485a(c).

RECORDKEEPING REQUIREMENTS

The permittee shall record the following information as part of the existing refinery-wide Leak Detection and Repair (LDAR) program.

1. The following information shall be recorded in a log that shall be kept in a readily accessible location and updated as needed:

a. A list of identification numbers for all equipment subject to the monitoring requirements above.

b. A list of identification numbers for any equipment designated as unsafe-to-monitor and explanation of why each is unsafe-to-monitor.

c. A list of identification numbers for any equipment designated for no detectable emissions and the dates of each compliance test, the background level measured during each compliance test, and the maximum instrument reading measured during each compliance test.

2. The permittee shall record the following information for each monitoring event in a log that shall be kept for two (2) years in a readily accessible location:

   a. Monitoring instrument identification.

   b. Operator identification.

   c. Equipment identification.

   d. Date of monitoring.

   e. Instrument reading.

3. When a leak is detected, the permittee shall attach a weatherproof and readily visible identification, marked with the equipment identification number. This identification may be removed after the component has been repaired and re-monitored.

4. When a leak is detected, the permittee shall record the following information in a log that shall be kept for two (2) years in a readily accessible location:

   a. The instrument and operator identification numbers and the equipment identification number.

   b. The date the leak was detected and the dates of each attempt to repair the leak.

   c. Repair methods applied in each attempt to repair the leak.

   d. Maximum instrument reading measured after each repair attempt.

   e. “Repair delayed” and reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

   f. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

g. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

h. Dates of process unit shutdowns that occur while the equipment is unrepaired.

i. The date of successful repair of the leak.

REPORTING REQUIREMENTS

The permittee shall submit semiannual reports containing the following information. This information shall be submitted as part of the existing LDAR semiannual reports submitted by the refinery.

1. Process unit identification.

2. For each quarter during the semiannual period, the type and number of components for which leaks were detected.

3. The facts that explain each delay or repair and, where appropriate, why a process unit shutdown was technically infeasible.

4. Dates of process unit shutdowns which occurred within the semiannual reporting period.

PLANT 61 – CRUDE II

EMISSION POINT BE-211

Beginning upon permit issuance, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point BE-211, the common stack for the two Crude II process heaters, F-6101 (400 MMBtu/hr) and F-6102 (200 MMBtu/hr), with a total rated capacity of 600 MMBTU/hr. The Crude II process heaters will be modified by replacing the existing burners with ultra low-NO_x burners (ULNB).

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

EMISSION LIMITATIONS[1]

Particulate Matter/PM_{10}	6.71 lb/hr (3-hr block average) and 19.58 TPY (12-month rolling total, determined monthly)
Sulfur Dioxide (SO_2)	33.54 lb/hr (24-hr rolling average, determined hourly) and 83.99 TPY (12-month rolling total, determined monthly)
Nitrogen Oxides (NO_x)	0.070 lb/MMBtu (365-day rolling average, determined daily), not to exceed 63.00 lb/hr (3-hr rolling average, determined hourly) and 183.96 TPY (12-month rolling total, determined monthly)
Carbon Monoxide (CO)	375.00 lb/hr (3-hr rolling average, determined hourly) and 166.02 TPY (12-month rolling total, determined monthly)
Sulfuric Acid (H_2SO_4)	0.55 lb/hr (24-hr rolling average, determined hourly) and 1.29 TPY (12-month rolling total, determined monthly)

[1] These emission limits are the combined limits on the common stack for the two heaters.

FUEL RESTRICTION

For F-6101, the permittee shall only burn Refinery Fuel Gas and/or Plant 40 Merox Regenerator Gas,.

For F-6102, the permittee shall only burn Refinery Fuel Gas.

NSPS Subpart J – Petroleum Refineries

For Emission Point BE-211, 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 requirements of the *General Provisions* (40 CFR Part 60, Subpart A).

Sulfur Dioxide/H_2S Fuel Gas Standard:
The permittee shall not burn any fuel gas containing hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf), based on a 3-hr 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 60 days after achieving the maximum production rate at which Emission Point BE-211 will be operated, but not later than 180 days after modification of BE-211, 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).

Particulate Matter	EPA Test Methods 1-5 (40 CFR Part 60, Subpart A)

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

For SO_2 and H_2SO_4, initial compliance shall be demonstrated by the refinery fuel gas sulfur and H_2S monitoring required below. For NO_x and CO, initial compliance shall be demonstrated by the continuous emissions monitoring systems (CEMS) required below.

For the purpose of demonstrating initial compliance, the permittee shall operate both Crude II process heaters 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/Sulfuric Acid:
To demonstrate compliance with the lb/hr and TPY SO_2 and H_2SO_4 emission limits, the permittee shall perform the following monitoring:

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. (Ref.: 40 CFR 60.107a(a)(2))

The permittee shall collect weekly fuel samples in an as-fired condition and analyze for total sulfur content. The permittee shall also monitor the amount of fuel combusted each hour.

For F-6101, when burning gases other than Refinery Fuel Gas, the permittee shall comply with the alternative monitoring plan in Appendix H of the Title V Operating Permit issued October 1, 2009.

Nitrogen Oxides:
To demonstrate compliance with the NO_x emission limits expressed as lb/MMBtu, lb/hr, and TPY, the permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for monitoring and recording the concentration by volume of NO_x emissions to the atmosphere. The 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.

Carbon Monoxide:
To demonstrate compliance with the CO emission limits expressed as lb/hr and TPY, 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 AND REPORTING REQUIREMENTS

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

Sulfur Dioxide/Sulfuric Acid:
The permittee shall calculate and record the following:

(a) The hourly fuel rate (MMscf/hr) and the monthly total amount of fuel combusted and the total amount of fuel combusted per year (MMscf/yr) determined on a 12-month rolling total.
(b) The hourly SO_2 emission rate (lbs/hr) and the rolling 24-hour average emission rate (lbs/hr), as well as the monthly total SO_2 emission rate and the 12-month rolling total SO_2 emission rate (TPY).
(c) The hourly sulfuric acid emission rate (lbs/hr) and the rolling 24-hour average emission rate (lbs/hr), as well as the monthly total H_2SO_4 emission rate and the 12-month rolling total H_2SO_4 emission rate (TPY).

The permittee shall submit semiannual excess emission reports in accordance with §60.7(c) and §60.107(e) and (f) for periods of excess emissions determined as all rolling 3-hour periods during which the average concentration of H_2S exceeds 230 mg/dscm (0.10 gr/dscf). (Ref.: 40 CFR 60.105(e)(3)(ii))

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

(a) All CEMS data.
(b) The daily and rolling 365-day average NO_x emissions calculated daily in units of lb/MMBtu.
(c) The hourly and rolling 3-hour average NO_x emissions calculated hourly in units of lb/hr.
(d) The monthly total and 12-month rolling total NO_x emissions calculated monthly in units of TPY.

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

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

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.