UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4
Atlanta, Georgia

Permit to Construct and Operate Under the Outer Continental Shelf Air Regulations
Permit No. OCS-EPA-R4007-M2

In accordance with the provisions of section 328 of the Clean Air Act (CAA), 42 U.S.C. § 7627 and the implementing Outer Continental Shelf (OCS) Air Regulations at Title 40 Code of Federal Regulations (CFR) 40 CFR part 55, which incorporate by reference the Prevention of Significant Deterioration (PSD) of Air Quality Regulations at 40 CFR § 52.21 and the title V Operating Permit Program at 40 CFR part 71,

Eni US Operating Company Incorporated
Two Allen Center
1200 Smith Street, Suite 1700
Houston, Texas 77002

is hereby authorized to construct and operate, air emissions units and to conduct other air pollutant emitting activities at an OCS source at the following location:

Lloyd Ridge lease block 411 is located in the OCS waters of the Gulf of Mexico east of longitude 87.5, approximately 154 miles southeast of the mouth of the Mississippi River and 189 miles south of the nearest Florida coast.

This permit is being issued as a modification to Permit No. OCS-EPA-R4007. This permit will supersede previously issued air construction permits related to specific conditions included in this permit.

Upon initial start-up, this OCS source and support vessels shall be constructed and operated in accordance with the terms and conditions set forth in this permit.

This permit originally became effective on November 28, 2011. This permit was modified on May 11, 2012, and April 21, 2014.

This permit shall expire two years from the date the OCS Source commences activity on Lloyd Ridge lease block 411, not to exceed November 28, 2016.

This permit shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of federal and state law.

_____
Date Signed

_____
Beverly H. Banister
Director
Air, Pesticides, and Toxics
Management Division

1 AUTHORITY

The United States Environmental Protection Agency (EPA) issues this permit pursuant to section 328 of the CAA, 42 U.S.C. § 7627, and the implementing OCS Air Regulations at 40 CFR part 55, which incorporate by reference the PSD Regulations at 40 CFR § 52.21 and the title V Operating Permit Program at 40 CFR part 71. This permit is based upon the application initially submitted to the EPA by Eni US Operating Company Incorporated (Eni) on May 14, 2010, supplemental submittals in the administrative record for this permit action and upon the technical analysis performed by the EPA.

2 APPLICANT

Eni US Operating Company Incorporated
Two Allen Center
1200 Smith Street, Suite 1700
Houston, Texas 77002

3 PROJECT LOCATION

Lloyd Ridge lease block 411, located in the OCS waters of the Gulf of Mexico east of longitude 87.5, approximately 154 miles southeast of the mouth of the Mississippi River and 189 miles south of the nearest Florida coast.

4 PROJECT DESCRIPTION

The project, known as the Holy Cross Drilling Project, will mobilize the *Pathfinder* drillship, and support vessels to drill in the Gulf of Mexico, Lloyd Ridge lease block 411, to determine the presence of natural gas. The exploratory drilling activity will consist of two phases: the initial drilling phase and the well completion phase; the *Pathfinder* will complete both phases. The operation will last up to two years, and based on applicable permitting regulations, is a "temporary source" for PSD permitting purposes.

Air pollutant emissions generated from the Holy Cross Drilling Project include the following criteria pollutants: oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter (PM), particulate matter with an aerodynamic diameter less than 2.5 microns ($PM_{2.5}$), particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}), sulfur dioxide (SO_2), and volatile organic compounds (VOC) (as a measured pollutant for the criteria pollutant ozone). In addition, the project will generate other regulated air pollutants, including greenhouse gases (GHG). The project's emissions are primarily released from the combustion of diesel fuel in the engines that produce power for the thrusters to hold the dynamically positioned drillship in place, as well as the power to operate the drilling equipment. Other activities, such as cementing the well and the use and pumping of heavy lubricating muds, also release emissions. Based on emissions estimates, and the applicable permitting thresholds, the project is considered to have significant emissions of NO_x, CO, GHG, PM, PM_{10}, $PM_{2.5}$, and VOC and is subject to the PSD program for these pollutants.

The equipment on the drillship includes six main propulsion diesel electric generators, consisting of three Wärtsilä Vasa 18V32 LNE diesel engines with a rated power output of approximately 9,910 horsepower (hp) each, and three Wärtsilä Vasa 12V32 LNE diesel engines with a rated power output of

approximately 6,610 hp each. The emissions from the diesel engines will be controlled using Low NO_x Engine (LNE) design, turbo-charged with aftercoolers, injection timing retard, and high injection pressure. Emissions will be further controlled using good combustion practices, enhanced load management and an emissions measurement program.

A combination of crew boats and supply boats will support the drillship. The support vessels will be used to transport personnel, supplies, and fuel to the drillship, as required, during the entire duration of the exploratory drilling. As it is not known which specific vessels will be available when the drilling commences, the support vessels will be used interchangeably depending on availability. The *Max Chouest* is the largest (based on total engine rating) support vessel currently expected to be available during the proposed drilling activity. The specific support vessels that will be on location during the operation will be identified prior to commencing operations. Emissions from the support vessels, including emissions while at the OCS source or en route to or from the OCS source within 25 nautical miles of the OCS source shall be considered direct emissions from the OCS source.

Eni is authorized to construct and operate the *Pathfinder*, the *Max Chouest*, or similar support vessel with an equivalent or lower potential to emit for all regulated pollutants, and emission units listed in Tables 1 and 2, at the lease block identified on Page 1 of this permit, consistent with the representations in the permit application and subject to the terms and conditions in this permit.

The information provided in Tables 1 and 2 is for description purposes and does not establish operating limits.

Table 1 – Transocean *Pathfinder* Drillship

Transocean *Pathfinder* Drillship				
Unit ID	**Description**	**Make & Model**	**Rating/Capacity**	**Year**
DR-GE-01	Main propulsion generator #1	Wärtsilä Vasa 18V32 LNE	9,910 hp*	1997
DR-GE-02	Main propulsion generator #2	Wärtsilä Vasa 18V32 LNE	9,910 hp	1997
DR-GE-03	Main propulsion generator #3	Wärtsilä Vasa 18V32 LNE	9,910 hp	1997
DR-GE-04	Main propulsion generator #4	Wärtsilä Vasa 12V32 LNE	6,610 hp	1997
DR-GE-05	Main propulsion generator #5	Wärtsilä Vasa 12V32 LNE	6,610 hp	1997
DR-GE-06	Main propulsion generator #6	Wärtsilä Vasa 12V32 LNE	6,610 hp	1997
DR-GE-07	Emergency generator engine #1	MAN D-2842 LE	580 hp	1997
DR-CE-01	Crane engine #1	Caterpillar 3406	490 hp	2007
DR-CE-02	Crane engine #2	Caterpillar 3406	490 hp	2007
DR-CE-03	Crane engine #3	Caterpillar 3406	490 hp	2011
DR-CE-04	Crane engine #4	Caterpillar 3406	490 hp	2011
DR-PE-01	Emergency fire pump engine #1	Detroit 8V-92 TA	568 hp	
DR-EC-01	Escape capsule diesel engine #1		40 hp	1997
DR-EC-02	Escape capsule diesel engine #2		40 hp	1997
DR-EC-03	Escape capsule diesel engine #3		40 hp	1997
DR-EC-04	Escape capsule diesel engine #4		40 hp	1997

DR-B-01	Diesel boiler	Aalborg PH-12t/H	9.6 MMBtu/hr†	1997
DR-TL-01	Fuel tank loading		10,132 gal/day‡	1997
DR-TA-01	No.1 HFO storage tank STBD (starboard side)		610,687 gal	1997
DR-TA-02	No.1 HFO storage tank PORT (port side)		610,687 gal	1997
DR-TA-03	HFO service tank STBD		28,372 gal	1997
DR-TA-04	HFO service tank PORT		28,372 gal	1997
DR-TA-05	HFO settler tank STBD		31,119 gal	1997
DR-TA-06	HFO settler tank PORT		31,119 gal	1997
DR-TA-07	No.1 Forward diesel oil storage tank		138,611 gal	1997
DR-TA-08	Diesel oil storage tank STBD		28,372 gal	1997
DR-TA-09	Diesel oil storage tank PORT		28,372 gal	1997
DR-TA-10	Diesel oil service tank STBD		7,106 gal	1997
DR-TA-11	Diesel oil service tank PORT		7,106 gal	1997
DR-TA-12	Emergency generator fuel tank		150 gal	1997
DR-TA-13	Diesel fire pump tank		50 gal	1997
DR-TA-14	Crane engine tank #1		40 gal	1997
DR-TA-15	Crane engine tank #2		40 gal	1997
DR-TA-16	Crane engine tank #3		40 gal	1997
DR-TA-17	Crane engine tank #4		40 gal	1997
DR-TA-18	Jet A-1 Tank		991 gal	1997
DR-TA-19	Lube oil settling tank PORT		15,058 gal	1997
DR-TA-20	Lube oil settling tank STBD		12,548 gal	1997
DR-TA-21	Lube oil storage tank PORT		11,069 gal	1997
DR-TA-22	Lube oil storage tank STBD		11,069 gal	1997
DR-TA-23	Sep. bilge oil tank		5,785 gal	1997
DR-TA-24	Base oil tank		136,611 gal	1997
DR-WO-01	Welding Operations		N/A	N/A
DR-PO-01	Painting Operations		N/A	N/A

* Horsepower
† Million British thermal units per hour
‡ Gallons per day

Table 2 – *Max Chouest* or Similar (Support Vessel)

Unit ID	Description	Rating
AB-ME-01	Diesel marine propulsion engine #1	7,600 hp
AB-ME-02	Diesel marine propulsion engine #2	7,600 hp
AB-TE-01	Diesel marine bow thruster (tunnel) #1	1,500 hp
AB-TE-02	Diesel marine stern thruster (tunnel) #2	1,500 hp
AB-TE-03	Diesel marine bow thruster (drop-down azimuthing) #3	1,200 hp
AB-GE-01	Service generator engine #1	670.5hp
AB-GE-02	Service generator engine #2	670.5hp
AB-GE-03	Service generator engine #3	670.5hp
AB-GE-04	Service generator engine #4	402.3 hp

5 GENERAL CONDITIONS

5.1 Compliance

5.1.1 The permittee shall comply with all requirements of 40 CFR part 71, 40 CFR § 52.21, 40 CFR part 55 and this permit. Failure to do so shall be considered a violation of section 111(e) of the CAA. All enforcement provisions of the CAA, including, but not limited to, the provisions of sections 113, 114, 120, 303 and 304 of the CAA, shall apply to the OCS source and permittee.

[40 CFR § 55.9(a) and (b)]

5.1.2 The permittee must comply with all conditions of this permit. All terms and conditions of this permit are enforceable by the EPA and citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[40 CFR § 71.6(a)(6)(i)]

5.1.3 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 this permit.

[40 CFR § 71.6(a)(6)(ii)]

5.2 Permit Shield

Compliance with the terms and conditions of this permit shall be deemed in compliance with the applicable requirements that are included and are specifically identified in this permit. Nothing in this permit shall alter or affect the following:

- The provisions of CAA section 303 (emergency orders), including the authority of the Administrator under that section;
- The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- The ability of the EPA to obtain information from a source pursuant to CAA section 114.

[40 CFR § 71.6(f)(1)]

5.3 Other Credible Evidence

For the purpose of submitting compliance certifications in accordance with Condition 5.20 of this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[CAA §§ 113(a) and (e)(1), 40 CFR §§ 60.11(g) and 61.12]

5.4 Construction and Operation

5.4.1 As approved and conditioned by this permit, all construction and operation, including equipment operations and maintenance, of the OCS source and support vessels shall be in accordance with the data, specifications, drawings, exhibits, and assumptions included with the application and supporting materials submitted by the permittee, which resulted in this permit ("application materials"). This permit is valid only for the specific processes and operations applied for and indicated in the application materials. Any unauthorized deviation from the application materials, or from any term or condition of this permit may constitute grounds for revocation or enforcement action by the EPA.

5.4.2 The permittee shall properly operate and maintain the OCS source and support vessels, including all systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the terms and conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to minimize or prevent emissions in achieving compliance with the terms and conditions of the permit.

[40 CFR § 52.21(r)(1)]

5.5 Compliance with Other Requirements

This permit does not relieve the permittee of the responsibility to comply fully with applicable provisions of any other requirements under federal law.

[40 CFR § 55.6(a)(4)(iii)]

5.6 Notification to Owners, Operators, and Contractors

The permittee must notify all other owners or operators, contractors, and the subsequent owners or operators associated with emissions from the OCS source and support vessels of the terms and conditions of this permit.

[40 CFR § 55.6(a)(4)(iv)]

5.7 Permit Expiration

5.7.1 This approval to construct shall become invalid if construction is not commenced within 18 months after the effective date of this permit, construction is discontinued for a period of 18 months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified.

[40 CFR § 52.21(r)(2)]

5.7.2 This permit shall expire two years from the date the OCS Source commences activity on Lloyd Ridge lease block 411, not to exceed November 28, 2016. The EPA may extend the two years upon a satisfactory showing that the extension is justified, and under the condition that project emissions do not exceed those specified in this permit.

[40 CFR § 52.21(i)(3), 40 CFR § 71.6(a)(2), 40 CFR § 55.6(a)]

5.8 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

[40 CFR §71.6(a)(6)(iv)]

5.9 Inspections

The permittee, by accepting this permit, specifically agrees to allow authorized EPA personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted or where any records are required to be kept under the terms and conditions of this permit to:

5.9.1 Have access to and copy any records that must be kept under conditions of the permit, including but not limited to, information relating to the OCS source, support vessels, monitoring data, or compliance or noncompliance with the permit;

5.9.2 Inspect the OCS source, support vessels, equipment, practices, or operation regulated or required under this permit;

5.9.3 Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or the EPA rules; and

5.9.4 Reasonable time may depend on the nature of the concern being investigated.

[40 CFR § 71.6(c)(2)]

5.10 Emergency Provisions

In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- The permitted facility was at the time being properly operated;
- During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- The permittee submitted notice of the emergency to the EPA within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition 5.17.2 of this permit, concerning prompt notification of deviations.

[40 CFR §§ 71.6(g)(2), (3) and (5)]

5.11 Burden of Proof for Emergencies

In any enforcement proceeding, the permittee attempting to establish the occurrence of an emergency has the burden of proof.

[40 CFR § 71.6(g)(4)]

5.12 Emergency Defined

An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

[40 CFR § 71.6(g)(1)]

5.13 Certification Requirement

Any document required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[40 CFR §§ 71.5(d), 71.6(c)(1) and 71.9(h)(2]

5.14 Permit Actions

This permit may be modified, revoked, reopened, and reissued, or terminated for cause. 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.

[40 CFR § 71.6(a)(6)(iii)]

5.15 Reopening for Cause

The permit shall be reopened by the EPA and the permit revised prior to expiration under any of the circumstances described in 40 CFR § 71.7(f).

[40 CFR § 71.7(f)]

5.16 Recordkeeping Requirements

In accepting this permit, the permittee understands and agrees that all information relating to this permitted source which is submitted to the EPA may be used by the EPA as evidence in any enforcement case involving the permitted source arising under federal statutes, the EPA rules, or rules enforceable by the EPA.

5.16.1 This permit or a copy thereof shall be kept at the work site of the permitted activity.

5.16.2 The permittee shall furnish all records required by this permit.

5.16.3 During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the EPA.

5.16.4 The permittee shall hold at the corporate offices of Eni, located at 1201 Louisiana, Suite 3500, Houston, Texas, records of all monitoring information required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified.

[40 CFR § 71.6(a)(3)(ii)(B)]

5.16.5 Records of monitoring information shall include:

- The date, emission unit or other place as defined in this permit, and time of sampling or measurements;
- The results of such analyses and operating conditions as existing at the time of sample or measurement;
- The date(s) the analyses were performed;
- The person who performed the sampling or measurements; and
- The analytical techniques or methods used.

[40 CFR § 71.6(a)(3)(ii)(A)]

5.16.6 When requested by the EPA, the permittee shall furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the EPA, such facts or information shall be corrected promptly.

[40 CFR § 71.5(b)]

All notifications, reporting or other communications relating to this permit shall be submitted to:

Chief
Air & EPCRA Enforcement Branch
Air, Pesticides and Toxics Management Division
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

In addition, electronic copies of the above-referenced notifications and communications shall be submitted to the following individuals at their corresponding email address:

Name	Email	Phone
David Lloyd	lloyd.david@epa.gov	404-562-9216
Jason Dressler	dressler.jason@epa.gov	404-562-9208
Kelly Fortin	fortin.kelly@epa.gov	404-562-9117
Eva Land	land.eva@epa.gov	404-562-9103

5.16.7 The permittee shall furnish to the EPA, within a reasonable time, any information that the EPA 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 EPA copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR part 2, subpart B.

[40 CFR §§ 71.6(a)(6)(v) and 71.5(a)(3)]

5.17 General Reporting Requirements

5.17.1 The permittee shall submit to the EPA reports of any required monitoring for each six month reporting period from July 1 to December 31 and from January 1 to June 30, except that the first reporting period shall begin on the effective date of this permit and end on either June 30 or December 31, whichever occurs first. All reports shall be submitted to the EPA and shall be postmarked by the 30th day following the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition 5.13.

[40 CFR § 71.6(a)(3)(iii)(A)]

5.17.2 The permittee shall promptly report to the EPA, by telephone or facsimile, deviations from permit conditions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The report shall be made using the following numbers:

Telephone: (404) 562-9194
Facsimile: (404) 562-9019
Attn: Air Permits Part 71 Deviation Report

[40 CFR § 71.6(a)(3)(iii)(B)]

5.17.3 For the purposes of Conditions 5.17.1 through 5.17.5 of the permit, prompt is defined as follows:

5.17.3.1 Any definition of prompt or a specific time frame for reporting deviations provided in an underlying applicable requirement as identified in this permit.

5.17.3.2 Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

- For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence;
- For emissions of any regulated pollutant excluding those referenced in the preceding bullet, that continue for more than two (2) hours in excess of permit requirements, the report must be made within 48 hours of the occurrence; or
- For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report required in Condition 5.17.1.

[40 CFR § 71.6(a)(3)(iii)(B)]

5.17.4 Within 10 working days of the occurrence of a deviation as provided in Condition 5.17.3.2 above, the permittee shall also submit a written notice, which shall include a narrative description of the deviation and updated information as listed below to the EPA, certified consistent with Condition 5.13 of this permit. When reporting excess emissions or permit deviations, the permittee must report in writing the following information:

- OCS Source (Facility) Name
- OCS Air Permit Number
- Company Name
- Date/Time when the deviation was discovered;
- Date/Time when the event began (24-hour clock);
- Date/Time when the event ended (24-hour clock);
- Duration of the event: (hours: minutes) or days (total number of hours, minutes or days, if intermittent then include only the duration of the deviation);
- If the deviation was intermittent or continuous;
- Brief description of what happened and the cause, including information regarding the operating conditions during the deviation;
- Identification of the emission unit(s) or source(s) involved in the event using the same identification number(s) and name(s) as in the permit;
- Identification of each emission limit potentially exceeded during the event and the level of exceedance, if applicable;
- Whether the deviation was unavoidable;
- Describe corrective action taken and action taken to prevent future recurrence; and
- Certification: Based on information and belief formed after reasonable inquiry, certify that the statements and information reported are true, accurate, and complete.

[40 CFR §§ 71.6(a)(3)(i)(B) and (iii)(B)]

5.17.5 For the purposes of Conditions 5.17.1 through 5.17.5, deviation means any situation in which the permittee fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or record keeping required by this permit. For a situation lasting more than 24 hours, each 24-hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

- A situation where emissions exceed an emission limitation or standard;
- A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
- A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit (including indicators of compliance revealed through parameter monitoring); and
- A situation in which any testing, monitoring, recordkeeping or reporting required by

this permit is not performed or not performed as required.

[40 CFR § 71.6(a)(3)(iii)(C)]

5.17.6 If requested by the EPA, the permittee shall provide a more detailed written report as requested to follow up on an excess emissions/deviation report.

[40 CFR § 71.6(a)(3)(iii)(B)]

5.18 Off Permit Changes

The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met:

- Each change is not addressed or prohibited by this permit;
- Each change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- Changes under this provision may not include changes subject to any requirement under any provision of title I of the Clean Air Act;
- The permittee shall provide contemporaneous written notice to the EPA of each change, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11). The written notice shall describe each change, the date of the change, any change in emissions, pollutants emitted and any applicable requirements that would apply as a result of the change;
- The permit shield in Condition 5.2 does not apply to changes made under this provision; and
- The permittee shall keep a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes.

[40 CFR §71.6(a)(12)]

5.19 Operational Flexibility

The permittee is allowed to make a limited class of changes under section 502(b)(10) of the CAA within this permitted facility without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions) and are not title I modifications. This class of changes does not include changes that would violate applicable requirements or changes that would contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[40 CFR § 71.2 and 71.6(a)(13)(i)]

5.19.1 The permittee is required to send a notice to the EPA at least seven (7) days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy this permit.

[40 CFR § 71.6(a)(13)(i)(A)]

5.19.2 Any permit shield provided under 40 CFR § 71.6(f) and Condition 5.2 of this permit does not apply to changes made under this provision.

[40 CFR § 71.6(a)(13)(i)(B)]

5.20 Annual Compliance Certification

The permittee shall submit to the EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by February 28 of each year and covering the previous calendar year except that the first certification shall cover the period from the effective date of this permit through December 31. The compliance certification shall be certified as to truth, accuracy and completeness by a responsible official consistent with Condition 5.13 of this permit.

5.20.1 The certification shall include the following:

- The identification of each permit term or condition that is the basis of the certification;
- The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the CAA, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with each term and condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification; and
- A summary of NO_x, CO, PM/PM_{10}/$PM_{2.5}$, SO_2, VOC, H_2SO_4, GHG and HAP emissions in tons per year (TPY) emitted by each emissions unit regulated under this permit during the duration of the reporting period based on recorded data, such as actual fuel usage and actual hours of operation.

[40 CFR §71.6(c)(5) and 55.6(a)(4)]

5.20.2 If, for any reason, the permittee does not comply with or will be unable to comply with any term or condition in this permit, the permittee shall immediately provide the EPA with the following information:

- A description and cause of noncompliance; and
- The period of noncompliance, including dates and times; or,
- If not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Except as provided for in this permit, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

[40 CFR § 71.6(a) 6)(v)]

5.21 Compliance Schedule

For applicable requirements with which the source is in compliance, the permittee will continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis.

[40 CFR §§ 71.6(c)(3) and 71.5(c)(8)(iii)(A) and (B)]

5.22 Safe Shutdown

As provided in 40 CFR § 55.9(c), if this OCS source is ordered to cease operation of any piece of equipment due to enforcement action taken by the EPA, the shutdown will be coordinated by the EPA with the Bureau of Ocean Energy Management, Regulation and Enforcement, the United States Coast Guard, and the permittee and operator to assure that the shutdown will proceed in a safe manner. No shutdown action will occur until after the EPA's consultation with these agencies, but in no case will initiation of the shutdown be delayed by more than 24 hours after the EPA consults with these agencies. The initiation of the shutdown process will not preclude procedures necessary to ensure safety.

[40 CFR § 55.9(c)]

5.23 Transfer of Ownership

In the event of any changes in control or ownership of the OCS source, this permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and/or operator of the existence of this permit and its conditions by letter, a copy of which shall be forwarded to the EPA Region 4.

[40 CFR § 55.6(a)(4)(iv)]

5.24 Severability

The provisions of this permit are severable, and, in the event of any challenge to any portion of this permit or if any provision of the permit is held invalid, the remainder of this permit shall remain valid and in force.

[40 CFR §71.6(a)(5)]

5.25 General Testing Requirements

5.25.1 In addition to the specific testing requirements contained in the emission unit sections of this permit, the permittee shall comply with the generally applicable testing requirements in Conditions 5.25.2 through 5.25.10 whenever conducting a performance test required by this permit unless specifically stated otherwise in this permit.

5.25.2 The permittee shall provide the EPA at least 30 days prior notice of any performance test, except as otherwise specified in this permit, to afford the EPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay in conducting the scheduled performance test, the permittee shall notify the EPA as soon as possible of any delay in the original test date, either by providing at least seven (7) days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the EPA by mutual agreement.

5.25.3 The permittee shall submit to the EPA a source test plan 30 days prior to any required testing. The source test plan shall include and address the following elements:

- Purpose and scope of testing;
- Source description, including a description of the operating scenarios and mode of operation during testing and including fuel sampling and analysis procedures;
- Schedule/dates of testing;
- Process data to be collected during the test and reported with the results, including source-specific data identified in the emission unit sections of this permit;
- Sampling and analysis procedures, specifically requesting approval for any proposed alternatives to the reference test methods, and addressing minimum test length (*e.g.*, one hour, eight (8) hours, 24 hours, etc.) and minimum sample volume;
- Sampling location description and compliance with the reference test methods;
- Analysis procedures and laboratory identification;
- Quality assurance plan;
- Calibration procedures and frequency;
- Sample recovery and field documentation;
- Chain of custody procedures;
- Quality assurance/quality control project flow chart;
- Data processing and reporting;
- Description of data handling and quality control procedures; and
- Report content and timing.

5.25.4 Only regular operating staff may adjust the processes or emission control devices during or within two (2) hours prior to the start of a source test. Any operating adjustments made during a source test, that are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.

5.25.5 For the duration of each test run (unless otherwise specified), the permittee shall record the following information:

- All data which is required to be monitored during the test in the emission unit sections of this permit; and
- All continuous monitoring system data that is required to be routinely monitored in the emission unit sections of this permit for the emission unit being tested.

5.25.6 Each source test shall follow the reference test methods specified by this permit and consist of at least three (3) valid test runs conducted under normal operating conditions.

5.25.7 If the reference test method yields measured pollutant concentration values at an oxygen concentration other than specified in the emission standard, the permittee shall correct the measured pollutant concentration to the oxygen concentration specified in the emission standard by using the following equation:

$$PC_X = PC_m \times \frac{(21-X)}{(21-Y)}$$

Where:

PC_X = Pollutant concentration at X percent;

PC_m = Pollutant concentration as measured;

X = the oxygen concentration specified in the standard; and

Y = the measured average volumetric oxygen concentration.

5.25.8 Facilities for performing and observing the emission testing shall be provided that meet the requirements of 40 CFR § 60.8(e) and Reference Method 1 (40 CFR § 60, Appendix A).

5.25.9 Emission test reports shall be submitted to the EPA within 45 days of completing any emission test required by this permit along with items required to be recorded in Condition 5.25.5 above.

5.25.10 Source test emission data shall be reported as the arithmetic average of all valid test runs and in the terms of any applicable emission limit, unless otherwise specified in the emission unit sections of this permit.

[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

5.26 Payment of Fees

5.26.1 No later than April 1st of the subsequent year, the permittee shall submit the following to the EPA:

- Full payment of the annual permit fee, as specified in Conditions 5.26.2 through 5.26.11;
- An updated fee calculation worksheet form and a photocopy of each fee payment check (or other confirmation of actual fee paid), as specified in Conditions 5.26.4 through 5.27.8; and
- An annual emissions report of actual emissions, as specified in Condition 5.26.6, for the preceding calendar year.

[40 CFR §§ 71.9(a) and (h)]

5.26.2 The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency.

[40 CFR § 71.9(k)(1)]

5.26.3 The permittee shall send fee payment and a completed fee filing form to either of the addresses listed below.

If sent by Regular Mail through U.S. Postal Service (USPS) send to:

U.S. Environmental Protection Agency
FOIA and Miscellaneous Payments
Cincinnati Finance Center
PO Box 979078
St. Louis, MO 63197-9000

If sent by Express Delivery (or when a physical address is required) send to:

U.S. Bank
Government Lockbox 979078
US EPA FOIA & Misc. Payments
1005 Convention Plaza
Mail Station SL-MO-C2GL
St. Louis, MO 63101
Contact: Natalie Pearson (314-418-4087)

[40 CFR § 71.9(k)(2)]

5.26.4 The permittee shall send an updated fee calculation worksheet form and a photocopy of each fee payment check (or other confirmation of actual fee paid), submitted annually by the date specified in Condition 5.26.1, to:

Chief
Air Permits Section
Air, Pesticides and Toxics Management Division
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

[40 CFR § 71.9(h)(1)]

5.26.5 The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all "regulated pollutants (for fee calculation)," emitted from the source by the presumptive emission fee (in dollars/ton) in effect at the time of calculation. The presumptive emission fee is revised each calendar year and is available from the EPA prior to the start of each calendar year.

[40 CFR § 71.9(c)(1)]

5.26.5.1 "Actual emissions" means the actual rate of emissions in TPY of any "regulated pollutant (for fee calculation)," as defined in 40 CFR § 71.2, emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit's actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.

[40 CFR § 71.9(c)(6)]

5.26.5.2 Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data.

[40 CFR § 71.9(h)(3)]

5.26.5.3 If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures.

[40 CFR § 71.9(e)(2)]

5.26.5.4 The permittee shall exclude the following emissions from the calculation of fees:

- The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year;
- Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and
- The insignificant quantities of actual emissions not required to be listed or calculated in a permit application pursuant to 40 CFR § 71.5(c)(11).

[40 CFR §§ 71.9(c)(5)(i) through (iii)]

5.26.6 The permittee shall submit an annual emissions report of its actual emissions for the preceding calendar year. The annual emissions report shall be certified by a responsible official and shall be submitted each year to the EPA by the date specified in Condition 5.26.1. The annual emissions report shall be submitted to the EPA at the address listed in Condition 5.26.3 of this permit.

[40 CFR §§ 71.9(h)(1) and (2)]

5.26.7 Fee calculation worksheets shall be certified as to truth, accuracy, and completeness by a responsible official in accordance with Condition 5.13 of this permit.

[40 CFR § 71.9(h)(2)]

5.26.8 The permittee shall retain in accordance with the provisions of Conditions 5.16.4 and 5.16.5 of this permit, all work sheets and other materials used to determine fee payments. Records shall be retained for five years following the year in which the emissions data is submitted.

[40 CFR § 71.9(i)]

5.26.9 Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest.

[40 CFR § 71.9(l)]

5.26.10 The permittee, when notified by the EPA of additional amounts due, shall remit full payment within 30 days of receipt of an invoice from the EPA.

[40 CFR § 71.9(j)(2)]

5.26.11 If the permittee determines an EPA assessed fee is in error and wishes to challenge such fee, the permittee shall provide a written explanation of the alleged error to the EPA along with full payment of the EPA assessed fee.

[40 CFR § 71.9(j)(3)]

6 SPECIFIC CONDITIONS

6.1 Drill Site Notification

At least 10 days prior to entering the drill site, the permittee shall notify the EPA in accordance with Condition 5.16.7 of this permit, of the following information:

6.1.1 The location of the proposed drill site, using coordinates in the following formats:

- Latitude and longitude; and
- Universal Transverse Mercator grid system.

6.1.2 The proposed date that the drillship will enter the lease block and establish dynamic positioning at each proposed drill site and the probable duration of operation at that location; and

6.1.3 Not less than 24 hours prior to entering the lease block and in accordance with Condition 5.16.7, of any changes to the information provided by the permittee in Conditions 6.1.1 and 6.1.2.

[40 CFR §§ 71.6(a)(6)(v) and 52.21]

6.2 Drilling Limitation

Construction and operation as an OCS Source shall not exceed 150 calendar days. Each partial day that the *Pathfinder* is operated as an OCS source shall be counted as a calendar day.

6.2.1 For each drill site at which the *Pathfinder* operates, the permittee shall record the following:

6.2.1.1 The date and hour that the *Pathfinder* became an OCS Source at that drill site.

6.2.1.2 The date and hour that the *Pathfinder* ceased to be an OCS Source at that drill site.

[40 CFR § 55.6(a)]

6.3 Support Vessel Identification

The permittee shall maintain records in accordance with Condition 5.16 of the engine specifications, operating time within the 25 nautical mile radius of the *Pathfinder*, and emission estimates for any support vessel used in place of the *Max Chouest*. These records shall be submitted as part of the Annual Compliance Certification in accordance with Condition 5.20.

[40 CFR § 55.2 and 55.8]

6.4 Source-wide SO_2 Emission Limit

The permittee shall not combust any fuel with sulfur content greater than 15 parts per million by weight (ppmw), as determined by Condition 6.4.1, in any diesel-fueled emission unit on the *Pathfinder* and any support vessel.

6.4.1 The permittee shall obtain a certification of sulfur content for each shipment of fuel from the fuel supplier (the certification must indicate the sulfur content was determined by an approved EPA method), or the permittee shall obtain representative fuel samples using one of the methods in 40 CFR § 80.330 and shall determine the sulfur content of the fuel using one of the methods in 40 CFR § 80.580.

6.4.2 Monitoring, Recordkeeping and Reporting

6.4.2.1 Prior to mobilizing the *Pathfinder* for activities covered by this permit, the permittee shall determine and record the sulfur content of the fuel on the drillship and the support vessels using the procedures in Condition 6.4.1.

6.4.2.2 Thereafter, the permittee shall determine and record the sulfur content upon receiving each fuel shipment, as follows:

6.4.2.2.1 Obtain a certification of sulfur content for each shipment of fuel from the fuel supplier, or

6.4.2.2.2 Obtain a representative sample of the fuel delivered and analyze the sample for sulfur content using the procedures in Conditions 6.4.1.

6.4.3 The permittee shall provide the results of all fuel sample analyses required by Conditions 6.4.1 and 6.4.2 with the Compliance Certification Report required by Condition 5.20.

[40 CFR §§ 52.21, 71.6(a)(3) and (c)(1)]

6.5 Drillship Emission Units Limits.

6.5.1 Source Identification: DR-GE-01 through 06 Main propulsion generators equipped with positive crankcase ventilation, turbocharger and aftercooler, and high pressure fuel injection with aftercooling.

6.5.1.1 The permittee shall not discharge or cause the discharge of emissions into the atmosphere for each engines in excess of:

6.5.1.1.1 NO_x BACT Limit: 12.7 g/kW-hr on a rolling 24-hour average.

6.5.1.1.2 CO BACT Limit: 3.3 g/kW-hr on a rolling 24-hour average.

6.5.1.1.3 VOC BACT Limit: 0.39g/kW-hr on a rolling 24-hour average.

6.5.1.1.4 PM BACT Limit: 0.43 g/kW-hr on a rolling 24-hour average.

6.5.1.1.5 PM_{10} BACT Limit: 0.24 g/kW-hr on a rolling 24-hour average.

6.5.1.1.6 $PM_{2.5}$ BACT Limit: 0.24 g/kW-hr on a rolling 24-hour average.

6.5.1.1.7 CO_2e Limit: 700 g/kW-hr on a rolling 12-month total.

6.5.1.2 BACT Work Practice Standard: Use of good combustion practices based on the current manufacturer's specifications for these engines, and additional enhanced work practice standards as detailed in the application information submitted to the EPA in May 14, 2010. The application is provided in the administrative record and defines a detailed engine performance management system and the Diesel Engines with Turbochargers (DEWT) measurement system designed by Transocean. A parametric monitoring system equivalent to the DEWT measurement system may be used with prior EPA approval.

6.5.1.3 Operating Limit DR-GE-01 through DR-GE-03: Of these units, no more than two units may be operated simultaneously.

6.5.1.4 Operating Limit DR-GE-04 through DR-GE-06: Of these units, no more than two units may be operated simultaneously.

6.5.1.5 Compliance Demonstration Method for units DR-GE-01 through 06: The permittee shall monitor NO_x, CO, VOC, CO_2 and $PM/PM_{10}/PM_{2.5}$ emissions by the use of either an EPA-approved continuous emissions monitoring system, or an EPA-approved alternative parametric monitoring method, or with prior written approval by the EPA, a stack testing emissions monitoring system pursuant to Condition 6.8.1.

6.5.1.6 Monitoring, recordkeeping and reporting shall be conducted in accordance with Conditions 6.8.1 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.2 Reserved.

6.5.3 Source Identification: DR-CE-01 through 04 Crane engines, equipped with positive crankcase ventilation, turbocharger and aftercooler, and high pressure fuel injection with aftercooling.

6.5.3.1 The permittee shall not discharge or cause the discharge of emissions into the atmosphere for both engines in excess of:

6.5.3.1.1 NO_x Emission Limit: 9.7 TPY on a rolling 12-month total.

6.5.3.1.2 CO Emission Limit: 4.0 TPY on a rolling 12-month total.

6.5.3.1.3 VOC Emission Limit: 1.5 TPY on a rolling 12-month total.

6.5.3.1.4 $PM/PM_{10}/PM_{2.5}$ Emission Limit: 1.3 TPY on a rolling 12-month total.

6.5.3.1.5 CO_2e Emission Limit: 687 TPY on a rolling 12-month total.

6.5.3.2 BACT Work Practice Standard: Use of good combustion practices, based on the current manufacturer's specifications for this engine

6.5.3.3 Operating Limit: Each unit shall be operated no more than eight (8) hours per calendar day per unit.

6.5.3.4 Compliance with Condition 6.5.3.1 will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.2 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.3.5 Any subsequent replacement of these units must be compliant with 40 CFR part 60, subpart IIII, unless the permittee applies for and obtains an exemption under 40 CFR Part 60, subpart IIII or 40 CFR § 55.

[40 CFR §60.4200]

6.5.4 Source Identification: DR-GE-07 Emergency generator engine, equipped with positive crankcase ventilation, turbocharger and aftercooler, and high pressure fuel injection with aftercooling.

6.5.4.1 The permittee shall not discharge or cause the discharge of emissions into the atmosphere in excess of:

6.5.4.1.1 NO_x Emission Limit: 0.4 TPY on a rolling 12-month total.

6.5.4.1.2 CO Emission Limit: 0.09 TPY on a rolling 12-month total.

6.5.4.1.3 VOC Emission Limit: 0.03 TPY on a rolling 12-month total.

6.5.4.1.4 $PM/PM_{10}/PM_{2.5}$ Emission Limit: 0.03 TPY on a rolling 12-month total.

6.5.4.1.5 CO_2e Emission Limit: 14.6 TPY on a rolling 12-month total.

6.5.4.2 BACT Work Practice Standard: Use of good combustion practices based on the current manufacturer's specifications for this engine.

6.5.4.3 Operating Limit: This unit shall be operated no more than two (2) hours per week on a rolling 7-day total.

6.5.4.4 Compliance with Condition 6.5.4.1 will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.2 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.5 Source Identification: DR-PE-01 Emergency fire pump engine, equipped with positive crankcase ventilation, turbocharger and aftercooler, and high pressure fuel injection with aftercooling.

6.5.5.1 The permittee shall not discharge or cause the discharge of emissions into the atmosphere for in excess of:

6.5.5.1.1 NO_x Emission Limit: 0.02 TPY on a rolling 12-month total.

6.5.5.1.2 CO Emission Limit: 0.005 TPY on a rolling 12-month total.

6.5.5.1.3 VOC Emission Limit: 0.002 TPY on a rolling 12-month total.

6.5.5.1.4 $PM/PM_{10}/PM_{2.5}$ Emission Limit: 0.002 TPY on a rolling 12-month total.

6.5.5.1.5 CO_2e Emission Limit: 2.4 TPY on a rolling 12-month total.

6.5.5.2 BACT Work Practice Standard: Use of good combustion practices based on the current manufacturer's specifications for this engine.

6.5.5.3 Operating Limit: This unit shall be operated no more than 20 minutes per week of non-emergency, planned operation time on a rolling 7-day total.

6.5.5.4 Compliance with Condition 6.5.5.1 will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.2 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.6 Source Identification: DR-B-01 Diesel boiler equipped with insulation/insulation jackets.

6.5.6.1 The permittee shall not discharge or cause the discharge of emissions into the atmosphere for in excess of:

6.5.6.1.1 NO_x Emission Limit: 0.49 TPY on a rolling 12-month total.

6.5.6.1.2 CO Emission Limit: 0.12 TPY on a rolling 12-month total.

6.5.6.1.3 VOC Emission Limit: 0.005 TPY on a rolling 12-month total.

6.5.6.1.4 PM Emission Limit: 0.05 TPY on a rolling 12-month total.

6.5.6.1.5 PM_{10} Emission Limit: 0.02 TPY on a rolling 12-month total.

6.5.6.1.6 $PM_{2.5}$ Emission Limit: 0.01 TPY on a rolling 12-month total.

6.5.6.1.7 CO_2e Emission Limit: 565 TPY on a rolling 12-month total.

6.5.6.2 BACT Work Practice Standard: Use of good combustion and maintenance practices based on the current manufacturer's specifications for this engine.

6.5.6.3 Operating Limit: This unit shall be operated no more than 720 hours per 150 day operating period.

6.5.6.4 Compliance with Condition 6.5.6.1 will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.2 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.7 Source Identification: DR-EC-01 through 04 Escape capsule diesel engines.

6.5.7.1 Operating Limit: This unit shall be operated no more than 10 minutes per month of non-emergency, planned operation time on a rolling 30-day total.

6.5.7.2 Compliance with this operating limit will be assured by maintaining a record of operating time.

6.5.7.3 Monitoring, recordkeeping and reporting shall be conducted in accordance with Conditions 6.8.2 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.8 Source Identification: DR-TA-01 through 24 Tanks.

6.5.8.1 VOC Emission Limit: 0.27 TPY on a rolling 12-month total.

6.5.8.2 BACT Work Practice Standard: Use of good maintenance practices based on the current manufacturer's specifications for each tank.

6.5.8.3 Compliance with this operating limit will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.3 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.9 Source Identification: DR-TL-01 Fuel tank loading.

6.5.9.1 VOC Emission Limit: 0.03 TPY on a rolling 12-month total.

6.5.9.2 Operating Limit: The loading throughput shall be no more than 10,132 gallons/day on a rolling 24-hour total.

6.5.9.3 Compliance with this operating limit will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.4 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.10 Source Identification: DR-WO-01 Welding operations

6.5.10.1 $PM/PM_{10}/PM_{2.5}$ BACT Emission Limit: 0.02 tons per year on a 12-rolling total basis.

6.5.10.2 BACT Work Practice Standard: Best management practices to include:

6.5.10.2.1 Maintaining an accurate account of the quantity and type of welding rods used, and

6.5.10.2.2 Following manufacturer's recommendations for all equipment used in welding operations, including voltage levels.

6.5.10.3 Operating Limits: Total welding rods used shall be limited to 1,875 pounds per year of Type E309MO-16, E316L-16, E6010, E7018 (or equivalent) on a 12-month rolling total basis.

6.5.10.4 Compliance with this operating limit will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.5 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.5.11 Source Identification: DR-PO-01 Painting operations.

6.5.11.1 VOC BACT Emission Limit: 0.65 tons per year on a 12-month rolling total basis

6.5.11.2 BACT Work Practice Standards:

6.5.11.2.1 Best management practices to include: use of low-VOC coatings, use of drip pan and drop cloth in mixing/painting areas, and proper storage of coatings (and thinners) in non-leaking containers, and

6.5.11.2.2 Use of only brushes and rollers for coating applications.

6.5.11.3 Operating Limits: Total paint and thinner usage shall be limited to 323 and 33 gallons per year, respectively, on a rolling 12-month total basis.

6.5.11.4 Compliance with this operating limit will be demonstrated through monitoring, recordkeeping and reporting conducted in accordance with Conditions 6.8.6 and 6.10.

[40 CFR §§ 52.21 and 71.6(a)(1), (a)(3) and (c)(1)]

6.6 Offshore Support Vessels Operating Limits

6.6.1 The vessel *Max Chouest* or substitute support vessels (with equivalent or lower potential to emit) shall not exceed a total of 2100 operating hours within 25 nautical miles of the drillship for duration of the project.

6.6.2 The utilized support vessels shall not combust any diesel fuel with sulfur content greater than 15 ppmw.

6.6.3 Compliance with this operating limit will be demonstrated through the monitoring, recordkeeping and reporting conditions as set forth in Conditions 6.9 and 6.10.

[40 CFR §§ 52.21, 55.2, 55.6(a)(4) and 71.6(a)(1), (a)(3) and (c)(1)]

6.7 New Source Performance Standards and National Emission Standard for Hazardous Air Pollutants (HAP) Requirements

6.7.1 Crane engines DR-CE-01 through DR-CE-04 are subject to 40 CFR part 60, subpart IIII based on the per cylinder displacement and model year. The permittee has been granted a technical exemption pursuant to 40 CFR § 55.7 from the emission standard certification requirement of 40 CFR 60, subpart IIII. The permittee shall demonstrate compliance with emissions standards as specified in Condition 6.4, Condition 6.5.3 and by compliance with the following:

6.7.1.1 The permittee shall operate and maintain the engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved in writing by the engine manufacturer. The permittee shall only change those settings that are approved by the manufacturer. The permittee shall maintain records of the manufacturer’s written instructions for operation and

maintenance of the engine or the procedures the permittee developed that are approved in writing by the manufacturer in accordance with Condition 5.16.

6.7.1.2 The permittee must obtain the following emission reductions, not otherwise required by the Clean Air Act, from the same source or other sources in the area (including onshore): 8 tons of combined NO_x and VOC; 2 ton of PM (including PM precursors). Such reductions must be verified by the EPA prior to commencing operation.

[40 CFR § 55.7, 40 CFR part 60 subpart IIII]

6.7.2 If the project extends beyond May 3, 2013, based on engine model years and engine use (summarized in Table 2 of Section 4 of this permit), diesel engines DR-GE-01 through 06 are subject to and shall comply with the applicable requirements of 40 CFR part 63, subpart ZZZZ.

6.7.2.1 Existing stationary engines located at an area source of HAP emissions must comply with the requirements in Table 2d and the operating limitations in Table 1b and Table 2b in subpart ZZZZ no later than May 3, 2013, in accordance with the compliance schedule requirements of Condition 5.21.

6.7.2.2 Compliance with the numerical emission limitations established in subpart ZZZZ is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR § 63.6620.

6.7.2.3 Recordkeeping and reporting: Compliance with Condition 6.7.2 shall be determined based upon recordkeeping required by the Annual Compliance Certification set forth in Condition 5.20.

[40 CFR part 63, subpart ZZZZ]

6.7.2.4 Based on engine model years and engine use (summarized in Table 1 of Section 4 of this permit), the DR-CE-01 through DR-CE-04 Crane engines are subject to 40 CFR part 63, subpart ZZZZ. For the purpose of compliance with 40 CFR part 63, subpart ZZZZ, compliance with Condition 6.7.1 shall constitute compliance with 40 CFR part 60, subpart IIII for the DR-CE-01 through DR-CE-04 crane engines.

[40 CFR part 63, subpart ZZZZ, 40 CFR part 60, subpart IIII, 40 CFR § 55.7]

6.7.3 The permittee shall submit to the EPA prior notification of any upgrades to or replacements of diesel units specified in Table 1 of Section 4 of this permit in addition to a reevaluation of the applicability of pertinent NESHAP and NSPS regulations for the modified diesel unit.

[40 CFR §§ 71.6(a)(1), (a)(3) and (c)(1)]

6.8 Monitoring and Recordkeeping Requirements for the Drillship.

6.8.1 Drillship Main Propulsion Generator Engines units DR-GE-01 through DR-GE-06.

6.8.1.1 In accordance with Condition 6.5.1., the permittee shall monitor NO_x, CO, VOC, CO_2 and $PM/PM_{10}/PM_{2.5}$ emissions from the main drillship engines by the use of either an EPA-approved continuous emissions monitoring system, or an EPA-approved alternative parametric monitoring method, or, with prior written approval by the EPA, a stack testing emissions monitoring system as described in Conditions 6.8.1.1.1. through 6.8.1.1.3., on a pollutant specific basis.

6.8.1.1.1 Continuous Emissions Monitoring (Compliance Monitoring Option #1)

6.8.1.1.1.1 The permittee shall properly install, maintain in good working order, and operate a continuous emissions monitoring system to monitor emissions from the main generator engines, DR-GE-01 through DR-GE-06.

6.8.1.1.1.2 The permittee shall obtain stack gas volumetric flow rates using a calibrated flow monitor that records data on a continuous basis.

6.8.1.1.1.3 The permittee shall monitor and record energy usage in kW-hr.

6.8.1.1.1.4 The permittee shall install, calibrate and maintain the continuous emissions monitoring system with a plan approved by the EPA.

6.8.1.1.1.5 The quality assurance plan used by the permittee for the certification and operation of the continuous emissions monitoring system shall be made available to the EPA upon request.

6.8.1.1.1.6 The permittee shall demonstrate compliance based on a 24-hour period.

6.8.1.1.2 Parametric Monitoring (Compliance Monitoring Option #2)

6.8.1.1.2.1 The permittee shall properly monitor NO_x, CO, VOC, CO_2 and $PM/PM_{10}/PM_{2.5}$ emissions from the main generator engines, DR-GE-01 through DR-GE-06, by using a parametric monitoring system such as the Transocean Diesel Engines with Turbochargers (DEWT) measurement system or its equivalent upon prior written approval by the EPA.

6.8.1.1.2.2 If the DEWT measurement system is utilized, the permittee shall monitor and record the following parameters once every 30 seconds for 30 minutes twice a day:

- Charge Air Pressure (kPa) after air cooler;
- Charge Air Temperature (Celsius) after air cooler;
- Turbocharger RPM A& B (RPM);
- Engine Air Inlet Pressure (kPa);
- Engine Air Inlet Temperature (Celsius);
- Engine Air Inlet Relative Humidity (g/kg);
- Generator Load (kW); and
- NO_x and CO (ppm); and CO_2 or O_2 (%) Emission Concentration.

[40 CFR part 52.21; 71.6(a)(1), (a)(3) and (c)(1)]

6.8.1.1.3 Stack Testing Emissions Monitoring (Compliance Monitoring Option #3)

6.8.1.1.3.1 The permittee shall properly monitor NO_x, CO, VOC, CO_2 and $PM/PM_{10}/PM_{2.5}$ emissions from the main generator engines, DR-GE-01 through DR-GE-06, by using stack testing data collected according to an the EPA approved protocol and in accordance with Condition 6.8.1.1 to prepare a graph of engine load versus emission rates expressed in grams per kilowatt-hour (g/kW-hr) for each engine. Data collected prior to issuance of this permit may be used with the EPA approval. Plot the engine load as the independent (or x) variable and the pollutant emission rates as the dependent (or y) variable for each load point tested. Construct the graph by drawing straight-line segments between each load point. Draw a horizontal line to the y-axis from the minimum load point tested.

6.8.1.1.3.2 Within 90 days of the start of the drilling campaign, the six main engines, DR-GE-01 through DR-GE-06, shall be stack tested under the requirements of this section.

6.8.1.1.3.3 Each stack test shall be conducted at three different loads within the expected range of operations.

6.8.1.1.3.4 At a minimum, each stack test run shall test for emissions of CO, NO_X, $PM_{2.5}$, PM_{10}, VOC, CO_2, and visible emissions.

6.8.1.1.3.5 During each test run, the permittee shall monitor and record the following information:

- Density of the fuel used (in lbs/gallon);
- Heat content of the fuel used (in Btu/gallon); and
- Electrical power produced (in kW-hr).

6.8.1.1.3.6 For each engine, each load, and each pollutant, the permittee shall determine emission rates in g/kW-hr.

6.8.1.1.3.7 Use the load information recorded per Conditions 6.8.1.1.3.3 through 6.8.1.1.3.6, along with the graph of engine load versus emission rates to determine the emission rate in g/kW-hr for each engine load recorded. Linear interpolation shall be used to determine the emission rate when the actual load falls between two tested load points. When the engine load exceeds the maximum load measured during the stack testing, report the g/kW-hr emission rate obtained for the highest load point tested during the most recent stack test. Calculate the average emission rate for each hour of operation from all the individual emission rate results recorded during the hour.

6.8.1.1.3.8 When records of engine load are not available, substitute the highest g/kW-hr emission rate calculated for all the load points tested during the most recent stack test.

6.8.1.1.3.9 Determine the average emission rate (g/kW-hr) for each unit from the hourly emission rate results in each rolling 24 hour period.

6.8.2 Drillship Crane Engines, DR-CE-01 through 04, Emergency Generator, DR-GE-07, Emergency Fire Pump, DR-PE-01, Escape Capsule Diesel Engines, DR-EC-01 through DR-EC- 04, and Diesel Boiler DR-B-01.

6.8.2.1 To show compliance with applicable operating limits in Conditions 6.5.2 through 6.5.7, the permittee shall monitor and maintain a record with the following information:

6.8.2.1.1 Unit ID.

6.8.2.1.2 Date/time engine or boiler started.

6.8.2.1.3 Date/time engine or boiler shut down.

6.8.2.1.4 Name of person operating equipment (printed).

6.8.2.1.5 Signature of person operating equipment.

6.8.3 Tanks DR-TA-01 through DR-TA-24.

6.8.3.1 Compliance with applicable operating limits in Condition 6.5.8 will be assured by using the EPA's TANKS 4.0.9d program.

6.8.3.2 The permittee shall monitor and maintain a record with the following information:

6.8.3.2.1 Unit ID.

6.8.3.2.2 Records showing the dimensions of units DR-TA-01 through 24, and an analysis showing its capacity. These records shall be kept for the life of the unit.

6.8.4 Tank Loading DR-TL-01.

6.8.4.1 Compliance with this operating limit in Condition 6.5.9. will be assured by maintaining a contemporaneous record of operating time.

6.8.4.2 The permittee shall monitor and maintain a record with the following information:

6.8.4.2.1 Unit ID.

6.8.4.2.2 Date/time loading started.

6.8.4.2.3 Date/time loading ended.

6.8.4.2.4 The amount of fuel consumed per day shall be recorded in gallons.

6.8.4.2.5 Name of person recording delivery (printed).

6.8.4.2.6 Signature of recorder.

6.8.5 Welding Operations

Compliance with Condition 6.5.10 will be assured by monitoring and recording the types and amounts (in pounds) of welding rods used on a daily basis.

6.8.6 Painting Operations

Compliance with Conditions 6.5.11 will be assured by monitoring and recording the types and amounts (in gallons) of coatings and thinners used on a daily basis. Also, MSDS information for all coatings and thinners used must be kept on file.

[40 CFR §§ 52.21, 55.8 and 71.6(a)(1), (a)(3) and (c)(1)]

6.9 Monitoring and Recordkeeping Requirements for the Support Vessel Engines

6.9.1 Compliance demonstration method for the support vessels, in accordance with Condition 6.6, the permittee shall monitor and maintain a contemporaneous record of the following information:

6.9.1.1 Compliance with this operating limit will be assured by maintaining a record of operating time within the 25 nautical mile radius of the *Pathfinder* and during standby time at the *Pathfinder*.

6.9.1.2 The permittee shall show compliance by determining and recording the sulfur content upon receiving each fuel shipment as specified in Condition 6.4.

6.9.2 Monitoring and Recordkeeping Requirements: The permittee shall monitor and maintain a contemporaneous record with the following information:

- Date/time entering the 25 nautical mile radius;
- Date/time exiting the 25 nautical mile radius;
- Sulfur content of all fuel used in any engine as specified in Condition 6.4;

[40 CFR §§ 52.21, 55.2, 55.6(a)(4) and 71.6(a)(1), (a)(3) and (c)(1)]

6.10 Reporting Requirements

6.10.1 The permittee shall submit the information required in Conditions 6.8 and 6.9 in accordance with reporting specifications detailed in Condition 5.17.

[40 CFR § 71.6(a)(3)(iii)]