



Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 1 of 19

EQUIPMENT OWNER:

Signal Hill Service, Inc.

205333

EQUIPMENT OPERATOR:

Pacific Operators Offshore, LLC.

EQUIPMENT LOCATION:

Pacific Operators - Carpinteria location

STATIONARY SOURCE/FACILITY:

Pacific Operators - Carpinteria
Platform Houchin

SSID: 08001
FID: 08002

AUTHORIZED MODIFICATION:

This permit authorizes the installation of two new drilling rig diesel engines on Platform Houchin. The engines are both Tier 3 Detroit Diesels rated at 665 bhp each.

EQUIPMENT DESCRIPTION:

The equipment subject to this permit is listed in the table at the end of this permit.

PROJECT/PROCESS DESCRIPTION:

Two drill rig engines were brought to Platform Houchin in November 2009 and operated under statewide PERP registrations. Operations exceeded the 12 month limit under the regulation and POO, LLC. was required to obtain a District permit. This permit requires daily monitoring of the engine fuel usage to ensure NSR offset thresholds are not exceeded.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 2 of 19

CONDITIONS:

9.A Standard Administrative Conditions

The following federally enforceable administrative permit conditions apply to the Platform Houchin:

- A.1 **Condition Acceptance.** Acceptance of this operating permit by POO-LLC shall be considered as acceptance of all terms, conditions, and limits of this permit. [Re: PTO 9109]
- A.2 **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit shall constitute grounds for the APCO to petition for permit revocation pursuant to California Health & Safety Code Section 42307 et seq. [Re: PTO 9109]
- A.3 **Defense of Permit.** POO-LLC agrees, as a condition of the issuance and use of this PTO, to defend at its sole expense any action brought against the District because of issuance of this permit. POO-LLC shall reimburse the District for any and all costs including, but not limited to, court costs and attorney's fees which the District may be required by a court to pay as a result of such action. The District may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve POO-LLC of its obligation under this condition. The District shall bear its own expenses for its participation in the action. [Re: PTO 9109]
- A.4 **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities related to the implementation of Regulation XIII (*Part 70 Operating Permits*) that follow the issuance of this PTO permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by POO-LLC as required by Rule 210. [Re: PTO 9109, District Rule 210]
- A.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, POO-LLC shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. [Re: PTO 9109]
- A.6 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [Re: PTO 9109]

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 3 of 19

- A.7 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all written data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file), and with the District's analyses under which this permit is issued. [Re: PTO 9109]
- A.8 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on the Platform Houchin by the State of California or the California Coastal Commission in any consistency determination for the Project with the California Coastal Act. [Re: PTO 9109]
- A.9 **Compliance with Department of Interior Permits.** POO-LLC shall comply with all air quality control requirements imposed by the Department of the Interior in the *Plan of Development* approved for Platform Houchin on October 27, 1967, and any subsequent modifications. Such requirements shall be enforceable by the District. [Re: PTO 9109]
- A.10 **Compliance with Permit Conditions.**
- (a) POO-LLC shall comply with all permit conditions.
 - (b) This permit does not convey property rights or exclusive privilege of any sort to POO-LLC.
 - (c) Noncompliance with any permit conditions is grounds for permit termination, revocation and re-issuance, modification, enforcement action, or for denial of permit renewal. Any permit non-compliance constitutes a violation of the Clean Air Act and its implementing regulations or of District Rules or both, as applicable.
 - (d) The permittee shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for noncompliance with any permit condition.
 - (e) A pending permit action or notification of anticipated noncompliance by Nuevo does not stay any permit condition.
 - (f) Within a reasonable time period, POO-LLC shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
 - (i) compliance with the permit, or
 - (ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.
 - (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible.
[Re: 40 CFR Part 70.6.(a)(6), District Rule 1303.D.1]
- A.11 **Emergency Provisions.** The permittee shall comply with the requirements of the District, Rule 505 (Upset/Breakdown rule) and/or District Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the District, in writing, a "notice of emergency" within 2 working days of the emergency. The "notice of emergency" shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [Re: 40 CFR 70.6(g), District Rule 1303.F]

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 4 of 19

A.12 Compliance Plan.

- (a) The permittee shall comply with all federally enforceable requirements that become applicable during the permit term in a timely manner.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards.

[Re: 40 CFR 70.6(c)(3), District Rule 1302.D.2]

A.13 Right of Entry. The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

- (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
 - (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
 - (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times.
- Monitoring of emissions can include source testing.

[Re: 40 CFR 70.6(c), District Rule 1303.D.2]

A.14 Permit Life. The Part 70 permit shall become invalid three years from the date of issuance unless a timely and complete renewal application is submitted to the District. Any operation of the source to which this Part 70 permit is issued beyond the expiration date of this Part 70 permit and without a valid Part 70 operating permit (or a complete Part 70 permit renewal application) shall be a violation of the CAAA §502(a) and §503(d), and of the District rules.

The permittee shall submit an application for renewal of the Part 70 permit not later than 6 months before the date of the permit expiration. Upon submittal of a timely and complete renewal application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [Re: District Rule 1304.D.1]

A.15 Payment of Fees. The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [Re: District Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)]

A.16 Prompt Reporting of Deviations. The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 180 days after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation; 2) equipment involved; 3) the quantity of excess pollutant emissions, if any; and, 4) actions taken to correct the deviation. The requirements of this condition shall not apply to

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 5 of 19

deviations reported to the District in accordance with Rule 505. *Breakdown Conditions*, or Rule 1303.F *Emergency Provisions*. [District Rule 1303.D.1, 40 CFR 70.6(a) (3)]

- A.17 **Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the USEPA annually, i.e., along with the March 1 Annual Report; the reports shall be provided to the Control Officer every six months. These reports shall be submitted on District forms and shall identify each applicable requirement/ condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1 and March 1, respectively, each year. Supporting monitoring data shall be submitted in accordance with the “Semi-Annual Monitoring/Compliance Verification Report” condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [Re: *District Rules 1303.D.1, 1302.D.3, 1303.2.c*]
- A.18 **Federally-enforceable Conditions.** Each federally enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review. [Re: *CAAA, § 502(b)(6), 40 CFR 70.6(b)*]
- A.19 **Recordkeeping Requirements.** The permittee shall maintain records of required monitoring information that include the following:
- (a) The date, place and time of sampling or measurements or maintenance activity;
 - (b) operating conditions at the time of sampling or measurement or maintenance activity;
 - (c) date, place, name of company or entity that performed the analyses or measurement or maintenance activity and the methods used; and
 - (d) results of the analyses or measurement or maintenance. Additionally, records must be kept that document the date of analysis and the analytical techniques or methods used.

The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request. . [Re: *District Rule 1303.D.1.f, 40 CFR 70.6(a)(3)(ii)(A)*]

- A.20 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:
- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 6 of 19

years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.

- (b) Inaccurate Permit Provisions: If the District or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (c) Applicable Requirement: If the District or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists. If the permit is reopened, and revised, it will be reissued with the expiration date that was listed in the permit before the re-opening. [Re: 40 CFR 70.7(f), 40 CFR 70.6(a)]

- A.21 **Indemnity and Separation Clauses.** The Permittee shall defend, indemnify and hold harmless the District or its agents, officers and employees from any claim, action or proceeding against the District or its agents, officers or employees, to attack, set aside, void, or annul, in whole or in part, the approval granted herein. In the event that the District fails promptly to notify the Permittee of any such claim, action or proceeding, or that the District fails to cooperate fully in the defense of said claim, this condition shall thereafter be of no force or effect. In the event that any condition contained herein is determined to be invalid, then all remaining conditions shall remain in force. [Re: 40 CFR 70.6(c), District Rules 103 and 1303.D.1]

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

- B.1 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 7 of 19

the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [*Re: District Rule 301*]

- B.2 **Visible Emissions (Rule 302).** POO-LLC shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:
- (a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
 - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.(a) above.
- B.3 **PM Concentration - South Zone (Rule 305).** POO-LLC shall not discharge into the atmosphere, from any source, particulate matter in excess of the concentrations listed in Table 305(a) of Rule 305. [*Re: District Rule 305*]
- B.4 **Specific Contaminants (Rule 309).** POO-LLC shall not discharge into the atmosphere from any single source sulfur compounds, carbon monoxide and combustion contaminants in excess of the applicable standards listed in Sections A, E and G of Rule 309. [*Re: District Rule 309*].
- B.5 **Odorous Organic Sulfides (Rule 310).** POO-LLC shall not discharge into atmosphere H₂S and organic sulfides that result in a ground level impact beyond the POO-LLC property boundary in excess of either 0.06 ppmv averaged over 3 minutes or 0.03 ppmv averaged over 1 hour. [*Re: District Rule 310*]
- B.6 **Sulfur Content of Fuels (Rule 311).** POO-LLC shall not burn fuels with sulfur content in excess of 0.5% (by weight) for liquid fuels. Compliance with this condition shall be based on diesel fuel billing records or other data showing the certified sulfur content for each shipment. POO-LLC shall submit such statement *semi-annually* as a part of its semi-annual Part 70 compliance verification report to the District. [*Re: District Rule 311*]
- B.7 **Organic Solvents (Rule 317).** POO-LLC shall comply with the emission standards listed in Section B of Rule 317. Compliance with this condition shall be based on POO-LLC's compliance with Condition C.7 of this permit. [*Re: District Rule 317*]
- B.8 **Metal Surface Coating Thinner and Reducer (Rule 322).** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on POO-LLC's compliance with Condition C.7 of this permit and facility inspections. [*Re: District Rule 322*]

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 8 of 19

- B.9 **Architectural Coatings (Rule 323).** POO-LLC shall comply with the coating ROC content and handling standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. Compliance with this condition shall be based on POO-LLC's compliance with Condition C.7 of this permit and facility inspections. [*Re: District Rules 323, 317, 322, 324*]
- B.10 **Disposal and Evaporation of Solvents (Rule 324).** POO-LLC shall not dispose through atmospheric evaporation of more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on POO-LLC's compliance with Condition C.7 of this permit and facility inspections. [*Re: District Rule 324*]
- B.11 **Emergency Episode Plan.** During emergency episodes, POO-LLC shall implement the Emergency Episode Plan as approved by the District in July 2002. [*Re: District Rule 1303, 40 CFR 70.6*]
- B.12 **Adhesives and Sealants (Rule 353).** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee complies with the following:
- A) Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternately
 - B) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353, Section B.1, the total reactive organic compound emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353.
[*Re: District Rule 353*]
- B.13 **Emissions Of Oxides Of Nitrogen From Large Water Heaters and Small Boilers (Rule 360):** This rule applies to any person who supplies, sells, offers for sale, installs, or solicits the installation of any new water heater, boiler, steam generator or process heater for use within the District with a rated heat input capacity greater than or equal to 75,000 Btu/hour up to and including 2,000,000 Btu/hour.
- B.14 **Small Boilers, Steam Generators, and Process Heaters (Rule 361):** The permittee shall comply with the requirements of District Rule 361: *Small Boilers, Steam Generators, and Process Heaters* whenever a new boiler, process heater or other external combustion device is added or an existing unit is replaced.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 9 of 19

- B.15 **Oil and Natural Gas Production MACT.** POO-LLC is exempt from this MACT under 40 CFR 63.760(e)(1) [*Black Oil Exemption*]; however, it is subject to recordkeeping required under the General Standards of 40 CFR 63.10(b)(3). [Re: 40 CFR 63, Subpart HH]

9.C **Equipment Specific Conditions**

This section includes non-generic federally enforceable conditions, incorporating emissions and operations limits, and monitoring, recordkeeping and reporting requirements. This section may also contain other non-generic conditions.

- C.1 **Emission Limitations.** The mass emissions from the equipment permitted herein shall not exceed the values listed in Table 1. Emissions of PM and other pollutants shall not exceed the emission standards listed in Table 2 of this permit. Compliance shall be based on the operational, monitoring, recordkeeping, reporting, and source testing conditions of this permit.

- a. NO_x BACT Limit: Emissions from each new stationary prime diesel-fueled CI engine shall not exceed the emission standards in Table 4.0 of this permit. Compliance shall be based on portable analyzer monitoring and source testing as required by Conditions C.3.e (*Portable Analyzer Monitoring*) and C.9 (*Source Testing*) of this permit.
- b. Rule 333 Emission Limits: Emissions from each new stationary prime diesel-fueled CI engine shall not exceed 700 ppmv NO_x, at 15 % O₂, 750 ppmv ROC at 15% O₂ and 4,500 ppmv CO at 15% O₂ as specified in District Rule 333. Compliance with the NO_x BACT limit above in Condition C.1.a and the Tier standards for the other pollutants ensures compliance with the Rule 333 requirements. Compliance with the NO_x, ROC and CO limits shall be based on portable analyzer monitoring and source testing required by Conditions C.3.e (*Portable Analyzer Monitoring*) and C.9 (*Source Testing*) of this permit.

- C.2 **Operational Restrictions.** The equipment permitted herein is subject to the following operational restrictions listed below.

- a. Fuel Use Limits.
 - i. The cumulative daily fuel use for both the diesel-fueled CI engines shall not exceed 250.2 gallons per calendar day.
 - ii. The cumulative annual fuel use for both the diesel-fueled CI engines shall not exceed 89,371.3 gallons per calendar year.
- b. Engine Lockout. The Rig 23 diesel engines shall be equipped with an electronic lock-out that prevents simultaneous operation of both diesel engines. This lockout requirement shall be demonstrated upon request of a District inspector.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 10 of 19

- c. Fuel and Fuel Additive Requirements. The permittee may only add fuel and/or fuel additives to the engines or any fuel tank directly attached to the engines that comply with the State's Stationary Diesel Engine ATCM (title 17, California Code of Regulations section 93115), as applicable.
- d. Diesel Fuel Sulfur Limit. The total sulfur content of the diesel fuel used shall not exceed 15 ppmv. Compliance with this condition shall be based on Condition C.3.d (*Diesel Fuel Sulfur Content*).

C.3 **Monitoring.** The equipment permitted herein is subject to the following monitoring requirements:

- a. Non-Resettable Hour Meter: Each of the stationary prime diesel-fueled IC engines subject to this permit shall have installed a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District has determined (in writing) that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.
- b. Non-Resettable Fuel Meters: Each engine shall be equipped with two non-resettable fuel meters, as specified in the *Equipment List* attachment to this permit. The fuel meters shall be calibrated biennially pursuant to the recommendations of the manufacturer and shall be maintained in proper operating condition. The permittee must obtain an authority to construct permit prior to making any modifications to the fuel use metering system.
- c. Fuel Usage Monitoring. The volume of diesel fuel (in gallons) burned in each engine shall be measured through the use of District-approved calibrated non-resettable fuel meters. A log shall be maintained that records the daily fuel usage for each engine. Each daily fuel use observation shall be taken at 12:00 am (midnight). POO, LLC. shall use the *Fuel Use Monitoring Log* attachment to this permit unless an alternate log format has been approved by the District in writing. If at any time the District determines the fuel usage monitoring requirements are inadequate to ensure the emissions limitations and operational restrictions of this permit are not exceeded, a data-logging fuel use monitoring system may be required by the District. Within 60 days of this determination, POO, LLC. shall submit a permit modification application for the installation of a fuel use data-logging system.
- d. Diesel Fuel Sulfur Content. Compliance with the *Diesel Fuel Sulfur Limit* condition shall be based upon information provided on the diesel fuel by fuel vendor analysis, or documentation for each fuel shipment that the fuel meets California Code of Regulations,

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 11 of 19

Title 13, Section 2281 standards (i.e., ARB "Clean Diesel"). Alternately, the permittee shall annually sample and perform a fuel total sulfur analysis consistent with appropriate ASTM procedures.

- e. Portable Analyzer Monitoring. The permittee shall perform initial portable analyzer NO_x and CO monitoring as well as quarterly monitoring during each calendar quarter in which a source test is not performed and the engine is operated in excess of 20 hours per quarter. The compliance procedures outlined in Section F.3 of Rule 333 shall be followed for the portable analyzer monitoring. Portable analyzer instrument readings shall not exceed the limits specified in Table 3 of this permit.
- f. ICE Inspection and Maintenance Plan: The permittee shall implement the District approved ICE Inspection and Maintenance (I&M) Plan as required by Rule 333, Section F. Within 30 days from the date stamped on this permit a plan shall be submitted to the District for review and approval. The permittee must obtain approval of the plan within 90 days from the date stamped on this permit.

C.4 **Recordkeeping.** The permittee shall record and maintain the information listed below. Log entries shall be retained for a minimum of 60 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 60 months from most recent entry shall be made available to District staff within 5 working days from request.

- a. Operating Hours. A log shall be maintained that details the number of operating hours each day and total days of operation throughout the month for each engine, separately. In addition, the cumulative total annual hours for each engine shall be recorded.
- b. Fuel Use. The total amount of diesel fuel combusted in each engine shall be recorded on a daily, monthly and annual basis in units of gallons. The permittee shall record each daily fuel use observation at 12:00 am (midnight). The permittee shall use the *Fuel Use Monitoring Log* attachment to this permit unless an alternate log format has been approved by the District in writing. The operator performing each daily recordkeeping inspection must write and sign their name in the appropriate boxes of the log.
- c. Portable Analyzer Monitoring Results. Results of the portable analyzer monitoring required by Rule 333 and specified in Condition C.3.e (*Portable Analyzer Monitoring*) of this permit and the District approved ICE Inspection and Maintenance (I&M) Plan.
- d. Source Test Reports. Source test reports for all District-required stack emission tests.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 12 of 19

- e. Diesel Fuel Purchase. The owner or operator shall document fuel use through the retention of fuel purchase records that demonstrate that the only fuel purchased and added to the engine, or to any fuel tank directly attached to the engine, meets the requirements of the State's Stationary Diesel Engine ATCM (title 17, California Code of Regulations section 93115).
 - f. Engine Inspection and Maintenance Logs. IC engine inspection and maintenance logs shall be maintained, including quarterly inspection results, consistent with the reporting requirements incorporated in the District approved Rule 333 I&M Plan.
 - g. Fuel Meter Calibration. All records of required biennial fuel meter calibrations.
- C.5 **Reporting**. On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. In addition to the information required by Condition 9.C.17 of PTO 9109-R3, the report shall include the information required in the Recordkeeping Condition above.
- C.6 **Rule 333 Compliance**. The equipment identified in this permit operates in a facility subject to District Rule 333. In order to demonstrate compliance with the requirements of Rule 333, the permittee must submit the following information to the District for approval by the timelines specified:
- a. Inspection and Maintenance Plan (Section F) - An ICE Inspection and Maintenance ("I&M") Plan is required by Rule 333, Section F. Within 30 days of the final permit issuance, this Plan shall be submitted to the District for its review and approval. The permittee must obtain approval of the plan within 90 days from the date stamped on this permit. The Plan shall be prepared in accordance with the District's *Rule 333 I&M Plan Preparation Guidelines* document.
 - b. Testing (Section I) – Portable analyzer monitoring and source testing shall be conducted as stated in Conditions C.3.e (*Portable Analyzer Monitoring*) and C.9 (*Source Testing*) of this permit.
- C.7 **Best Available Control Technology (BACT)**. The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology (BACT) to the operation of the equipment/facilities as described in this permit and the District's Permit Evaluation for this permit. Table 3 and the Emissions, Operational, Monitoring, Recordkeeping and Reporting Conditions of this permit define the specific control technology and performance standard emission limits for BACT. The BACT shall be in place, and shall be operational at all times, for the life of the project. BACT related monitoring, recordkeeping and reporting requirements are defined in those specific permit conditions.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 13 of 19

C.8 Temporary Engine Replacements - DICE ATCM. Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be replaced temporarily only if the requirements (a – f) listed herein are satisfied.

- a. The permitted engine is in need of routine repair or maintenance.
- b. The permitted engine that is undergoing routine repair or maintenance is returned to its original service within 180 days of installation of the temporary engine.
- c. The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine that is being temporarily replaced. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower than the permitted engine if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.
- d. The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine that is undergoing routine repair or maintenance.
- e. For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form may be sent hardcopy, or can be faxed (fax: 961-8801) to the District (Attn: Engineering Supervisor).
- f. Within 14 days upon return of the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy, or can be faxed (fax: 961-8801) to the District (Attn: Engineering Supervisor).

Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. This condition does not apply to engines that have experienced a cracked block (unless under manufacturer's warranty), to engines for which replacement parts are no longer available, or new engine replacements {including "reconstructed" engines as defined in the ATCM}. Such engines are subject to the provisions of New Source Review and the new engine requirements of the ATCM.

C.9 Source Testing. The following source testing provisions shall apply:

- a. Source testing shall be required for NO_x, CO, and ROC if the result from a portable analyzer reading (required by Condition C.3.e. of this permit) exceeds a threshold of 223 ppmvd NO_x @ 15% O₂ as required by BACT, unless compliance with this threshold

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 14 of 19

is demonstrated by a retest within 15 days of the initial reading. A source test shall be conducted within 60 days of the initial over-the-threshold reading if triggered by this criteria. If source testing of the engine demonstrates compliance with the NO_x, CO, and ROC emission limits specified in Table 3 of this permit, the engine shall not be subject to another source test for two years from the date of the initial compliant source test. After two years, source testing may again be triggered based on the result of a portable analyzer reading, unless compliance is demonstrated by a retest within 15 days of the initial reading. If the engine does not demonstrate compliance with the NO_x, CO, and ROC emission limits specified in Table 3 of this permit in any source test, it shall be source tested every two years thereafter.

- b. If requested in writing by the District, a source test for PM shall be conducted within 60 days of the written request. The PM emission rate from the engine shall be determined using EPA Method 5 or a District-approved alternate method. The source test may demonstrate compliance with the permitted PM emission limit directly by sampling at the outlet of each DPF. Source testing shall be conducted at typical engine operating conditions.
- c. The permittee shall submit a written source test plan to the District for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's *Source Test Procedures Manual* (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.
- d. Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates in Table 4 and applicable permit conditions, rules and NSPS (if applicable). All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.
- e. A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 15 of 19

on the equipment item on the scheduled test day. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

The timelines in (a), (b), (c), and (d) may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District.

- C.10 **Documents Incorporated by Reference.** The documents listed below, including any District-approved updates thereof, are incorporated herein by reference and shall have the full force and effect of a permit condition for this permit. These documents shall be implemented for the life of the Project and shall be made available to District inspection staff upon request.
- a. *ICE Inspection and Maintenance (I&M) Plan* (to be submitted).
- C.11 **Notification of Non-Compliance.** Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.
- C.12 **Notification of Loss of Exemption.** Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in the ATCM from all or part of the requirements of the ATCM, shall notify the District immediately after they become aware that the exemption no longer applies and shall demonstrate compliance within 180 days after notifying the District.

9.D District-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the District and the State of California. These conditions are issued pursuant to District Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of Platform Houchin complies with all

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 16 of 19

applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health & Safety Code and any applicable requirement.

D.1 **Permit Activation.** All aspects of this permit are enforceable by the District and the State of California upon the issuance date stamped below. The Part 70 aspects of this permit are not final until:

- (a) The USEPA has provided written comments to the District and these comments require no modification to this permit. The District will issue a letter stating that this permit is a final Part 70 permit. The effective date that this permit will be considered a final Part 70 permit will be the date stamped on the District's letter.
- (b) After the USEPA has provided the District written comments that require a modification to this permit, the District will modify this permit to address the USEPA's comments and issue the Part 70 permit as final. The re-issued permit will supersede this permit in its entirety.


AIR POLLUTION CONTROL OFFICER

MAY 16 2012

DATE

Attachments:

- Table 1 – Mass Emission Limits
- Table 2 – Emission Factors
- Table 3 - Source Test Requirements
- Table 4 - Best Available Control Technology Requirements
- Fuel Use Monitoring Log
- Permit Equipment List(s)
- Permit Evaluation for Authority to Construct/Permit to Operate 13575

Notes:

- Reevaluation Due Date: April 1, 2013
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 17 of 19

TABLE 1. MASS EMISSION LIMITS

Device ID #	NO _x		ROC		CO		SO _x		PM		PM10	
	lb./day	tpy	lb./day	tpy	lb./day	tpy	lb./day	tpy	lb./day	tpy	lb./day	tpy
114676	30.46	5.44	2.18	0.39	28.28	5.05	0.06	0.01	1.63	0.29	1.63	0.29
114677	30.46	5.44	2.18	0.39	28.28	5.05	0.06	0.01	1.63	0.29	1.63	0.29
Total	30.46	5.44	2.18	0.39	28.28	5.05	0.06	0.01	1.63	0.29	1.63	0.29

TABLE 2. EMISSION FACTORS (lb/1000 gallon)

Device ID #	NO _x	ROC	CO	SO _x	PM	PM10
114676	121.72	8.69	113.02	0.24	6.52	6.52
114677	121.72	8.69	113.02	0.24	6.52	6.52

Table Notes:

- (a) NO_x as NO₂. SO_x as SO₂. PM means diesel PM.
- (b) Device ID # from permit equipment list.
- (c) lb./day = pounds per day. tpy = tons per year
- (d) Emission data that round down to 0.00 has been set to a default of 0.01.
- (e) The daily Potential to Emit (PTE) is based on a 250.2 gallon cumulative fuel consumption of both engines, as limited by this permit. The annual PTE based on a 89,371.3 gallon cumulative fuel consumption of both engines, as limited by this permit.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Table 3. SOURCE TESTING REQUIREMENTS FOR THE INTERNAL COMBUSTION ENGINES

Emission & Limit Test Points	Pollutants ^(e)	Parameters ^(b)	Test Methods ^{(a)(c)}	Limit		
				Concentration (ppmvd @ 15% O ₂)	Emission Standard (g/bhp-hr)	Mass Emissions (lb/hr)
IC Engine Exhaust ^(d)	Diesel PM	g/bhp-hr, lb/hr	ARB Method 5, per §93115.14 of Stationary Diesel IC Engine ATCM	--	0.15	0.23
	NO _x	ppmv, lb/hr	EPA Method 7E, ARB 1-100	223	--	4.35
	ROC	ppmv, lb/hr	EPA Method 18	46	--	0.31
	CO	ppmv, lb/hr	EPA Method 10, ARB 1-100	340	--	4.04
	Sampling Point Det. Stack Gas Flow Rate		EPA Method 1 EPA Method 2 or 19			
O ₂	Dry, Mol. Wt	EPA Method 3				
Moisture Content		EPA Method 4				

Table Notes:

- ^(a) Alternative methods may be acceptable on a case-by-case basis.
- ^(b) The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- ^(c) For NO_x, ROC, CO and O₂ a minimum of three 40-minute runs shall be obtained during each test.
- ^(d) Source testing shall be performed for the IC engine in an "as found" condition operating at a representative, District-approved, IC engine load (gal/hr).
- ^(e) PM testing may be required by the District upon written notification per Source Testing Condition C.9.b.

Table 4. BEST AVAILABLE CONTROL TECHNOLOGY

Emission Source	Pollutant	BACT Technology	BACT Performance Standard
Prime Diesel Fired Internal Combustion Engine	NO _x	Tier 3 ICE: the latest "Tier" engine available for this engine based on the engine power rating.	223 ppmvd NO _x at 15% O ₂ .

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 19 of 19

Pacific Operators Offshore LLC

Platform Houchin Rig 23 Monthly Hours & Fuel Use Monitoring Log

Month: _____

Year: _____

Day	Time	Engine No. 1 Meter Readings			Engine No. 2 Meter Readings			Operator Name	Operator Signature
		Hours	Fuel Supply (gallons)	Fuel Return (gallons)	Hours	Fuel Supply (gallons)	Fuel Return (gallons)		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

Criminal fines are recoverable against any person who knowingly makes any false material statement, representation or certification required by a Part 70 operating permit. By signing this form you certify that all information contained herein is true and correct.

Equipment List for Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 1 of 2

PERMIT EQUIPMENT LIST - TABLE A

ATC/PTO 13575 / FID: 08002 Platform Houchin / SSID: 08001

A PERMITTED EQUIPMENT

1 Drill Rig 23 Engine 1

<i>Device ID #</i>	114676	<i>Device Name</i>	Drill Rig 23 Engine 1
<i>Rated Heat Input</i>		<i>Physical Size</i>	665 Brake Horsepower
<i>Manufacturer</i>	Detroit Diesel	<i>Operator ID</i>	Rig 23
<i>Model</i>	60.14.0.L	<i>Serial Number</i>	06R0912384
<i>Location Note</i>			
<i>Device</i>	Tier 3		
<i>Description</i>	EPA Family Name: 6DDXL14.0VLD ARB Executive Order: U-R-007-0106 Model Year: 2006 Equipped with electronic operational interlock to prevent simultaneous operation with Drill Rig Engine 2.		

2 Drill Rig 23 Engine 2

<i>Device ID #</i>	114677	<i>Device Name</i>	Drill Rig 23 Engine 2
<i>Rated Heat Input</i>		<i>Physical Size</i>	665 Brake Horsepower
<i>Manufacturer</i>	Detroit Diesel	<i>Operator ID</i>	Rig 23
<i>Model</i>	60.14.0.L	<i>Serial Number</i>	06R0912385
<i>Location Note</i>			
<i>Device</i>	Tier 3		
<i>Description</i>	EPA Family Name: 6DDXL14.0VLD ARB Executive Order: U-R-007-0106 Model Year: 2006 Equipped with electronic operational interlock to prevent simultaneous operation with Drill Rig Engine 1.		

Equipment List for Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

Page 2 of 2

3 Drill Rig 23 Fuel Monitoring System

<i>Device ID #</i>	114678	<i>Device Name</i>	Drill Rig 23 Fuel Monitoring System
<i>Rated Heat Input</i>		<i>Physical Size</i>	1.0 – 50.0 gal/Hour
<i>Manufacturer</i>	Actaris	<i>Operator ID</i>	
<i>Model</i>	VLf 8	<i>Serial Number</i>	tbd
<i>Location Note</i>			
<i>Device Description</i>	Each engine is equipped with two non-resettable, instantaneous totalizing fuel meters. The meters measure fuel flow at both the fuel delivery and fuel return lines. The engine fuel consumption is determined by subtracting the fuel return line volume from the fuel delivery line volume.		



PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
 and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 1 of 7

1.0 BACKGROUND

1.1 General: In November 2009, Pacific Operators Offshore, LLC. (POO, LLC) submitted PERP notifications for the mobilization and use of two portable diesel engines on Platform Houchin in the OCS. The engines were brought to the platform in December 2009, and were used for an eight well redrill program. The intention was to complete the drilling work and remove the engines in no more than 364 days. The engines have remained at the platform for more the 12 months, making them no longer eligible for operation under PERP registrations. In November, 2010 POO, LLC. submitted a permit application for these engines. This permit application was deemed incomplete due to inadequacies with the fuel use monitoring and recordkeeping systems for the engines. After several submittals from POO, LLC., the application was deemed complete on October 25, 2011. This permit incorporates fuel use monitoring, recordkeeping and reporting requirements to ensure the offset thresholds for NO_x are not exceeded.

1.2 Permit History:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PTO 09109	09/04/1994	Past due fees
PTO Mod 09109 01	05/02/1996	Past due fees
ATC 09555	06/20/1996	
PTO 09555	06/21/1996	Past due fees
Reeval 09109 R1	12/15/1999	Facility Reevaluation permit. The reevaluation due date of 9/97 was delayed pending resolution of source status as a Part 70 source. Part 70 status was resolved in 6/99.
ATC Mod 10358 02	10/09/2001	ATC reflecting modification of crane engines. Past due fees.
ATC 10713	10/12/2001	AWT tester modification. Past due fees.
PT-70/Reeval 09109 R1	04/24/2002	First reeval
PTO Mod 09109 03	07/28/2004	Application to eliminate the use of inaccurate fuel flow meters for the North Crane IC engine and allow the more conservatibe mode of hour meter use to estimate fuel flow.

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 2 of 7

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PT-70/Reeval 09109 R2	05/19/2005	Offshore oil and gas platform.
PTO 11952	07/25/2006	One CAT D-330 firewater pump engine- 110 bhp. One CAT D-379 E/S generator- 510 bhp and a DDC 3-71, 99 bhp crane engine. PTO due to loss of Rule 202 exemption. Limited to 200 hr/yr M&T operations. See P70-R 11953. Reissued 7/25/06 (7/12 final replaced)
ATC 12388	08/07/2008	Installation of a John Zink model KMI 8-1 open pipe flare equipped with flare ionization monitoring system and an electronic ignition system.
ATC/PTO 13370	02/16/2010	Modification to revise flare gas volumes for the John Zink model KMI 8-1 open pipe flare.
ATC Mod 12388 01	04/05/2010	Modification to install the new GE Fuel Meter to the John Zink model KMI 8-1 open pipe flare.
PTO 13107	04/14/2010	Loss of exemption of well kill pump and well service rig engines.
PT-70/Reeval 09109 R3	04/14/2010	Permit Reevaluation
ATC 13671	10/10/2011	Replacement of the main and auxiliary engines on crew boat Matthew.

1.3 Compliance History:

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
NOV	5109	04/28/1995	using an unpermitted cold solvent degreaser
NOV	5122	11/02/1995	not maintaining both valves on an open-ended line closed & the line leaking in excess of 10,000 ppm
NOV	5333	03/28/1996	3 leaking valves/two over limit
NOV	5344	12/12/1996	exceeding the number of leaks in "other" category
NTC	5741	05/24/1999	Late submittal of 1Q99 CVR report for Platform Houchin
NTC	5742	05/24/1999	Use of wrong emission factors in quarterly reports for platform Houchin
NTC	5746	08/18/1999	Notice to Comply not an AIDOC. Response due by 8-31-99

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 3 of 7

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
NTC	7742	03/09/2004	Failed to submit annual s/t report 45 days after the s/t of the north crane ICE on Houchin.
NOV	7984	03/23/2004	Exceeded threshold limit for pump seal (other) leaking > 10,000 ppm during I&M inspection. Three pump seal found leaking, one more than allowed.
NTC	8005	11/30/2004	Failed to submit Deviation Report in the 1st half CVR 2004 documenting late submittal of s/t results on north crane.
NOV	8308	10/25/2005	I&M leak summary report for 3Q05 period revealed that two valves were not in compliance with Rule 331.D as required in condition 9.C.2(b) when monitored, recorded and reported.
NOV	8309	10/25/2005	POOI failed to submit Deviation Report for fugitive I&M violations noted in NOV #8308.
NTC	9244	12/23/2008	Failure to update one plan and submit another plan within 30 days of start of SCDP per the ATC
NOV	9606	07/29/2010	NOV 9606 also documents violations of Rule 206, Conditions 9.C.6 (c) (i) and 9.C.6 (d) (i) of Part 70 PTO 9109-R3 and Condition 1. c, d, f, g and h of ATC 12388-01.
NOV	9718	02/08/2012	failure to submit a Permit to Operate (PTO) application and the appropriate filing fee not more than 120 calendar days after the SCDP began pursuant to Rule 201.E.2 .

2.0 ENGINEERING ANALYSIS

- 2.1 Equipment/Processes: The diesel engines subject to this permit provide power for the “Rig 23” drilling rig located on Platform Houchin. An electronic lockout ensures only one diesel engine is operated at any one time.
- 2.2 Emission Controls: Both engines are certified as Tier 3 engines. The engine emissions satisfy District Best Available Control Technology (BACT) standards and District Rule 333 for Control of Emissions from Reciprocating Internal Combustion Engines requirements.
- 2.3 Emission Factors: Emission factors are based on USEPA Tier 3 engine emission standards per 40 CFR Part 89. The emission factors were converted from units of g/bhp-hr to units of lb/1000 gal using the following equation:

$$EF_{lb/1000 \text{ gal}} = EF_{g/bhp-hr} \times 1/CF1 \times 1/BSFC \times HHV \times 1000 \text{ gal}/1000 \text{ gal}$$

where:

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
 and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 4 of 7

EF_{lb/1000 gal} = emission factor in units of "lb/1000 gallons"
 EF_{g/bhp-hr} = emission factor in units of "g/bhp-hr"
 CF1 = grams to pounds conversion factor (453.6 g/lb)
 BSFC = engine brake-specific fuel consumption - HHV based (Btu/bhp-hr)
 HHV = fuel higher heating value (Btu/gallon)

2.4 Reasonable Worst Case Emission Scenario: Emissions are based on information provided by the applicant and USEPA Tier 3 emission factors for engines built from 2006-2010 with a bhp rating between 600 - 750 bhp. The worst case scenario for this permit is based on an aggregate fuel consumption of 250.5 gallons in any one calendar day and 89,371.3 gallons per year. This keeps the NEI for the stationary source under the offset threshold of Regulation VIII.

2.5 Emission Calculations: The emissions listed in Table 1 (*Mass Emission Limits*) are determined by the equations listed below. See Tables 2 for the variables required by these equations.

$$E1, \text{ lb. /day} = EF (\text{lb}/1000 \text{ gal}) * \text{Daily Fuel Use (gal/day)} / 1000$$

$$E2, \text{ tpy} = EF (\text{lb}/1000 \text{ gal}) * \text{Annual Fuel Use (gal/yr.)} * (\text{ton}/2000 \text{ lb.}) / 1000$$

2.6 Special Calculations: The NO_x BACT concentration limit in units of ppmvd @ 15% O₂ was calculated using the following equation:

$$\text{ppmvd} = [EF_{\text{g/bhp-hr}} \times mv \times 10^{12}] / [F_D \times EAC \times BSFC \times CF1 \times MW_p]$$

where:

EF = pollutant emission factor (g/bhp-hr)
 mv = molar volume (379 std ft³ S/lb-mol S -- assumes std temp of 60°F)
 FD = F-factor exhaust volume at 0% O₂ and 60°F (dscf/MMBtu)
 EAC = excess air correction (0% O₂ to 15% O₂ => EAC = 3.5424)
 BSFC = engine brake-specific fuel consumption - HHV based (Btu/bhp-hr)
 CF1 = grams to pounds conversion factor (453.6 g/lb)
 MW_p = molec. weight of pollutant (lb/lb-mol=> NO_x= 46, CO = 28, VOC=16)

$$\text{ppmvd} = \frac{[2.8 \text{ g/bhp-hr} \times 379 \text{ std ft}^3 \text{ S/lb-mol S} \times 10^{12}]}{[9080 \text{ dscf/MMBtu} \times 3.5424 \times 7100 \text{ Btu/bhp-hr} \times 453.6 \text{ g/lb} \times 46 \text{ lb/lb-mol}]} = 223 \text{ ppmv}$$

2.7 BACT Analyses: These engines trigger BACT for NO_x since they are over the 25 lb./day BACT project threshold for NO_x. The engines are new Tier 3 engines and therefore satisfy District BACT emissions standards. Source testing shall be required for NO_x, CO, and ROC if the result of a portable analyzer reading exceeds a threshold of 223 ppmvd NO_x @ 15% O₂ as required by BACT, unless compliance with this threshold is demonstrated by a retest within 15 days of the initial reading.

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 5 of 7

- 2.8 Enforceable Operational Limits: Fuel consumption of both new stationary prime diesel-fueled CI engines is limited to an aggregate of 250.2 gallons in any one calendar day to ensure emissions remain below offset levels.
- 2.9 Monitoring Requirements: Monitoring of the equipment's operational limits are required to ensure that these are enforceable. Detailed fuel use monitoring requirements are ensure the emissions from the engines remain below offset levels. Portable analyzer monitoring is required for NO_x and CO during each calendar quarter in which a source test is not performed and the engine is operated in excess of 20 hours per quarter. Portable analyzer readings must not exceed a threshold of 223 ppmvd NO_x @ 15% O₂ as required by BACT.
- 2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the District.

3.0 REEVALUATION REVIEW (not applicable)

4.0 REGULATORY REVIEW

4.1 Partial List of Applicable Rules:

Rule 101.	Compliance of Existing Facilities
Rule 201.	Permits Required
Rule 202.	Exemptions to Rule 201
Rule 205.	Standards for Granting Permits
Rule 302.	Visible Emissions
Rule 303.	Nuisance
Rule 309.	Specific Contaminants
Rule 310.	Odorous Organic Sulfides
Rule 311.	Sulfur Content of Fuels
Rule 333.	Control of Emissions from Reciprocating Internal Combustion Engines
Rule 801.	New Source Review
Rule 802.	Nonattainment Review
Rule 803.	Prevention of Significant Deterioration
Rule 810.	Federal Prevention of Significant Deterioration
CCR 93115	ATCM for Stationary Compression Ignition Engines
NSPS IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

4.2 Rules Requiring Review:

- 4.2.1 § 93115.3 ATCM for Stationary CI Engines – Exemptions. Section (h) of this provision exempts stationary diesel-fueled engines used solely on outer continental shelf (OCS) platforms from the emission standards requirements of the ATCM. The engines are still

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 6 of 7

required to meet the Fuel and Fuel Additive Requirements and Recordkeeping, Reporting and Monitoring Requirements of the ATCM.

- 4.2.2 *Rule 311 - Sulfur Content of Fuels:* Section B and Section C of this rule limit the sulfur content of liquid fuels (e.g., diesel) to no more than 0.5 percent by weight. The permittee has indicated the use of low-sulfur diesel fuel No. 2 with a sulfur content not exceeding 0.05 percent by weight, in compliance with the Stationary ATCM requirements.
- 4.2.3 *Rule 333 - Control of Emissions from Reciprocating Internal Combustion Engines:* The engine is subject to the requirements of Rule 333. The engine will be monitored quarterly for NO_x and CO. The permitted exhaust concentration limits are lower than the Rule 333 limits due to the New Source Review (NSR) BACT mass emission limits. Compliance with the NSR exhaust concentration limits ensures compliance with the Rule 333 exhaust concentration limits.

Rule 333 does not require a source test for certified compression ignition engines, unless exhaust monitoring detects NO_x concentrations of greater than 560 ppmv @ 15% O₂ and exhaust concentrations are not brought under 560 ppmv @ 15% O₂ within 15 days of the initial reading. The more stringent BACT requirements of this permit require source testing if NO_x concentrations of greater than 223 ppmv @ 15% O₂ are found during exhaust monitoring and are not brought under 223 ppmv @ 15% O₂ within 15 days of the initial reading.

The engines subject to this permit are not nonroad compression ignition engines as defined in 40 CFR Part 89.

- 4.2.4 *Rule 802 - Nonattainment Review:* The District is currently designated nonattainment for the state ozone and PM₁₀ standards. The provisions of this rule apply to ozone precursor pollutants (NO_x and ROC), PM₁₀ and PM₁₀ precursor pollutants (NO_x, ROC and SO_x).

BACT - The BACT threshold is exceeded for NO_x.

Emission offsets (§E) are not triggered as limited by fuel use.

- 4.3 NEI Calculations: The net emission increase calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This is an existing source that has been modified. This permit's contribution to the existing NEI and the NEI values for this facility are documented in the *Detailed NEI Tables* Attachment to this permit.

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13575
and
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13575

Page 7 of 7

6.0 OFFSETS/ERCs

6.1 Offsets: The emission offset thresholds of Regulation VIII are not exceeded as limited by fuel use.

6.2 ERCs: This source does not generate emission reduction credits.

7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

8.0 CEQA / LEAD AGENCY

The District is the lead agency under CEQA for this project. Pursuant to Section 15061(b)(3) of the California Environmental Quality Act ("CEQA") Guidelines, the proposed modifications authorized under this permit are exempt from CEQA because the project does not have the potential for causing a significant effect on the environment. Further, no cross-media impacts are projected.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT

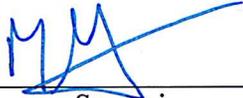
10.1 This project was not subject to public notice. A draft permit was not issued.

11.0 FEE DETERMINATION

Fees for the APCD's work efforts are assessed on a cost reimbursement basis. The Project Code for this permit is 205333 (*POO-LLC Platform Houchin*).

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

<u>David Harris</u> AQ Engineer/Technician	<u>5/15/2012</u> Date	 Supervisor	<u>5-16-12</u> Date
---	--------------------------	--	------------------------

13.0 ATTACHMENT(S)

- IDS Tables
- Detailed NEI Tables

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

ATTACHMENT
IDS Tables

PERMIT POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	30.46	2.18	28.28	0.06	1.63	1.63
lb/hr						
TPQ						
TPY	5.44	0.39	50.5	0.01	0.29	0.29

FACILITY POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	1523.12	142.08	350.14	0.66	113.32	110.29
lb/hr						
TPQ						
TPY	91.72	18.57	34.63	0.24	9.69	9.42

FACILITY NEI90

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
lb/day	53.86	9.42	34.58	2.87	3.33	3.33
lb/hr						
TPQ						
TPY	7.91	1.96	7.92	0.66	0.67	0.66

Notes:

- (1) Emissions in these tables are from IDS.
- (2) Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

Part 70 Minor Modification 13575
and
Authority to Construct/Permit to Operate 13575

ATTACHMENT
Detailed NEI Tables

Table 5.5
Pacific Operators Offshore LLC (POO-LLC) Platform Houchin: ATC/PTO 13575
Entire Source Net Emissions Increase

Platform Hogan	NOx	ROC	CO	SOx	PM	PM10
Part 70/PTO 9108-R2						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	1.33	0.11	0.66	0.36	0.21	0.21
ATC 12389 and ATC/PTO 13371 - New Flare						
lb/day	0.24	5.66	1.31	0.13	0.07	0.07
tons/year	0.36	1.29	1.94	0.19	0.10	0.10
Facility Total NEI						
lb/day	0.24	5.66	1.31	0.13	0.07	0.07
tons/year	1.69	1.40	2.60	0.55	0.31	0.31

Platform Houchin	NOx	ROC	CO	SOx	PM	PM10
Part 70/PTO 9109-R2						
lb/day	23.16	1.58	4.99	2.68	1.63	1.63
tons/year	2.10	0.26	0.83	0.45	0.27	0.26
ATC 12388 and ATC/PTO 13370 - New Flare						
lb/day	0.24	5.66	1.31	0.13	0.07	0.07
tons/year	0.37	1.31	2.04	0.20	0.11	0.11
ATC/PTO 13575 for Drill Rig 23						
lb/day	30.46	2.18	28.28	0.06	1.63	1.63
tons/year	5.44	0.39	5.05	0.01	0.29	0.29
Facility Total NEI						
lb/day	53.86	9.42	34.58	2.87	3.33	3.33
tons/year	7.91	1.96	7.92	0.66	0.67	0.66

Stationary Source Total NEI	NOx	ROC	CO	SOx	PM	PM10
lb/day	54.10	15.08	35.88	3.00	3.40	3.40
tons/year	9.60	3.36	10.51	1.21	0.99	0.98



**Santa Barbara County
Air Pollution Control District**

MAY 16 2012

Certified Mail 7011 3500 0002 7298 3385
Return Receipt Requested

Clement Alberts
Pacific Operators Offshore, LLC.
1145 Eugenia Place, Suite 200
Carpinteria, CA 93013

FID: 08002
Permit: AP 13575
SSID: 08001

Re: Final Authority to Construct/Permit to Operate 13575

Dear Mr. Alberts:

Enclosed is the final Authority to Construct/Permit to Operate (ATC/PTO) No. 13575 for two drill rig diesel engines at Platform Houchin.

Please carefully review the enclosed documents to ensure that they accurately describe your facility and that the conditions are acceptable to you. Note that your permitted emission limits may, in the future, be used to determine emission fees.

You should become familiar with all District rules pertaining to your facility. This permit does not relieve you of any requirements to obtain authority or permits from other governmental agencies.

This permit requires you to:

- Follow the conditions listed on your permit. Pay careful attention to the recordkeeping and reporting requirements.
- Mail us the enclosed Start-up Notification postcard once you have completed construction of the permitted equipment and are ready to operate it.
- Ensure that a copy of the enclosed permit is posted or kept readily available near the permitted equipment.
- Promptly report changes in ownership, operator, or your mailing address to the District.

If you are not satisfied with the conditions of this permit, **you have thirty (30) days from the date of this issuance to appeal this permit to the Air Pollution Control District Hearing Board** (ref: California Health and Safety Code, §42302.1). Any contact with District staff to discuss the terms of this permit will not stop or alter the 30-day appeal period.

Please include the facility identification (FID) and permit numbers as shown at the top of this letter on all correspondence regarding this permit. If you have any questions, please contact David Harris of my staff at (805) 961-8824.

Sincerely,



Michael Goldman, Manager
Engineering & Compliance Division

enc: Final ATC/PTO 13575
Final Permit Evaluation
Air Toxics "Hot Spots" Fact Sheet District Form 12B
Start-up Notification Postcard

cc: Platform Houchin 08002 Project File
ECD Chron File
Ben Ellenberger (Cover letter only)
David Harris (Cover letter only)

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 08001 Pacific Operators - Carpinteria\Houchin\ATCs\ATC-PTO 13575\ATC-PTO 13575 - Final Letter - 5-11-2012.doc