



air pollution control district
SANTA BARBARA COUNTY

HEARING BOARD STAFF REPORT

TYPE: **MODIFICATION OF FINAL
COMPLIANCE DATE AND
MODIFICATION OF
CONDITIONS OF REGULAR
VARIANCE**

CASE NO: **2021-04-M1**

DATE: **January 5, 2022**

1.0 GENERAL INFORMATION:

- 1.1 **PETITIONER COMPANY NAME:** Beacon West Energy Group, LLC (Beacon West)
- 1.2 **EQUIPMENT LOCATION:** Platform Houchin, Offshore Lease Tract OCS-P-0166
- 1.3 **PERMIT NUMBER(S):** Part 70 Permit to Operate 9109-R4
- 1.4 **FACILITY NAME/ID:** Platform Houchin/FID 8002
- 1.5 **FACILITY DESCRIPTION:** Platform Houchin is a nine leg, 60 wellhead slot platform which has not produced oil, water, or gas since December 2014. When the platform was in operation, sweet natural gas and crude oil emulsion were produced. Both products were transported via sub-sea pipelines to the La Conchita oil and gas plant in Ventura County. In addition to oil and gas related equipment (e.g., flare, storage tanks, vapor recovery system, etc.) the platform also has the following equipment: cranes and associated engines, emergency generator, and an emergency firewater pump. The platform is located approximately 7 miles southeast from the City of Santa Barbara.

- 2.0 **REASON FOR THE VARIANCE REQUEST:** On June 28, 2019, the State Lands Commission terminated the right-of-way lease to Signal Hill Services, Inc (Signal Hill). The right-of-way lease allowed for use and maintenance of four submerged pipelines for Platforms Hogan and Houchin, operated by Pacific Operators Offshore, LLC (POOI). Oil and gas was sent to the La Conchita Oil and Gas Processing Facility in Ventura County via these pipelines. Signal Hill attempted to renew the right-of-way lease, however, it was denied.

In September 2019, POOI notified the U.S Bureau of Safety and Environmental Enforcement (BSEE), the District, and other agencies they intended to cease all crude oil and natural gas production operations from platforms Hogan and Houchin. Shortly after, POOI stopped adequately maintaining and operating the platforms.

BSEE called on the former lessee, Conoco Phillips, to carry out removal of the existing oil and gas infrastructure on these leases (decommissioning). On November 6, 2020, Conoco Phillips notified Beacon West Energy Group, LLC (Petitioner) they could begin platform oversight. As such, the Petitioner began evaluating the platforms to prepare for the decommissioning process. During the evaluation process, the Petitioner discovered the platforms are significantly deteriorated causing safety concerns. However, before the decommissioning process can begin, platform safety concerns need to be addressed.

On March 3, 2021, Variance Order 2021-04-R, was granted by the Hearing board for District Rules 331.D - I, 325.E, 359.D.2.b, and 206, Part 70 Permit to Operate 9109-R4 Conditions 9.C.1.b.v, 9.C.1.b.vi, 9.C.1.c.i, 9.C.2.a, 9.C.2.b, 9.C.2.c, 9.C.2.d, 9.C.6.b.ii, 9.C.6.b.iii, 9.C.6.b.iv, 9.C.9, 9.C.14, and 9.C.15 from March 3, 2021 through January 7, 2022, or the date compliance is achieved, whichever occurs first.

Prior to the granting of the Variance Order 2021-04-R, the Petitioner identified one of the first steps would be to establish a working crane. A crane is needed for all aspects of work on the platform, including transferring personnel, parts, supplies, and fuel to operate needed equipment. With a working crane in place major safety repairs can be initiated and the flare can be brought back online.

The monthly status updates provided by the Petitioner for Variance Order 2021-05-R indicate the following steps have been taken to return to compliance:

Month	Venting & Leak	Crane Status	Flare Status	ROC Excess Emissions (monthly)
February	Leaks were discovered at wells B-1, B-11, B-34 and B-39. Daily monitoring was conducted, however, repairs were pending having an operational crane.	Schedule crane inspection for March. North crane inoperable and require replacement.	None taken; crane required	8,098 lbs, 4.05 tons
March	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	North crane inspected; significant repairs. South crane inspected on March 9 and 10. Significant repairs. Researched feasible repairs for both cranes.	None taken; crane required	5,778 lbs, 2.89 tons
April	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	North crane evaluated for repair/replacement. Worked with vendors for replacement of south crane.	None taken; crane required	13,225.73 lbs, 6.61 tons
May	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	North crane evaluated for repair/replacement. Worked with vendors for replacement of south crane.	None taken; crane required	8,748.36 lbs, 4.37 tons
June	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	Received inspection report/repair list/cost for north crane. Evaluating portable crane options. Followed up with vendors about repair/conversion to hydraulic on south crane.	None taken; crane required	8,41.74 lbs, 4.02 tons
July	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	North crane will not be repair. Portable bull frog crane to be rented/purchased.	None taken; crane required	8,373.17 lbs, 4.19 tons

August	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	Portable bull frog crane to be used on north side and rebuild south crane.	None taken; crane required	7,256.327 lbs, 3.63 tons
September	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	Procurement and construction for rebuild/conversion of south crane. Portable crane assessed to be used.	None taken; crane required	7,841.63 lbs, 3.92 tons
October	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	Procurement and construction for rebuild/conversion of south crane. Portable crane assessed to be used.	None taken; crane required	7,285.092 lbs, 3.64 tons
November	No repair actions for ongoing leaks; crane required for repairs. No additional leaks found.	Procurement and construction for rebuild/conversion of south crane. Portable crane deployment Q2 2022.	None taken; crane required	6,834.85 lbs, 3.42 tons
Total ROC emissions:				40.74 tons

The Petitioner is requesting additional time to establish a safe working environment on the platform. Challenges remain for the facility due to the structural integrity of the platform. For example, the handrails and grating in the well bay have been deemed unsafe.

The Petitioner is not pursuing further variance coverage for Part 70 Permit to Operate 9108-R4 Conditions 9.C.1.c.i and 9.C.15 (source testing requirements), and 9.C.14 (process stream analysis), as they are being addressed through a District permit modification. As a result, the Petitioner requested a Modification of Conditions of Regular Variance 2021-04-R, per Health and Safety Code §42356.

In addition, the repairs were unable to be completed during the variance period specified in Variance Order 2021-04-R. As a result, additional relief is being sought and the Petitioner is requesting a Modification of Final Compliance Date, per Health and Safety Code §42357.

Without Variance coverage, the Petitioner will be in violation of District Rules 331.D - I, 325.E, 359.D.2.b, and 206, Part 70 Permit to Operate 9109-R4 Conditions 9.C.1.b.v, 9.C.1.b.vi, 9.C.2.a, 9.C.2.b, 9.C.2.c, 9.C.2.d, 9.C.6.b.ii, 9.C.6.b.iii, 9.C.6.b.iv, and 9.C.9.

The Petitioner has requested variance coverage for emission controls, maintenance, and monitoring requirements during the evaluation process and eventual decommissioning of the platform.

3.0 BACKGROUND: A Petition for Variance Order 2021-04-R was submitted on January 8, 2021 by Beacon West Energy Group, LLC and granted by the Hearing Board on March 3, 2021. Variance Order 2021-05-R granted enforcement relief from March 3, 2021 through January 7, 2022, or the date compliance is achieved, whichever occurs first. On December 6, 2021, the Petitioner submitted a Petition for Modification of Regular Variance Order 2021-04-R, to modify the final compliance date and associated conditions. If granted, Variance Order 2021-04-M1, would grant enforcement relief from the date a decision is made through January 4, 2023.

4.0 PERMITTING HISTORY: The Petitioner submitted an application for transfer of owner operator for Part 70 Permit to Operate 9109-R4 on November 20, 2020. The transfer of owner operator application was deemed complete on November 30, 2020 and issued on December 9, 2020. On December 6, 2021, the Petitioner submitted a permit modification application to modify Conditions 9.C.1.c.i, 9.C.14 and 9.C.15 of Part 70 Permit to Operate 9109-R4. The permit modification application (PTO Mod 9109-04), was deemed complete on December 7, 2021.

5.0 COMPLIANCE HISTORY: NOV 12584 was re-issued to POOI on November 25, 2020 (originally issued on October 14, 2020) for failing to submit the second half 2019 and first half 2020 Compliance Verification Reports. On March 4, 2020, NOV 12198, was issued to POOI for failing to apply for permit renewal of their Part 70 permit to operate. This violation has been corrected. In the past three years, there have been four NOVs issued to POOI for Rule 331 (fugitive leaks) violations at Platform Houchin.

6.0 REGULATORY ANALYSIS: The Petitioner has requested the below permit conditions and rules to be included in Variance Order. Please see Section 10.0 for additional discussion.

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.1.b.v (Crane Operating Maintenance Requirements)**

(v) The North Crane engine (ID 004849) and the South Crane engine (ID 004848) are each subject to the following operating requirements:

1. Change the oil and filter every 1,000 hours of operation or annually, whichever comes first. In place of changing the oil every 1,000 hours of operation or annually, the operator may analyze the oil of each engine every 1,000 hours of operation or annually, whichever occurs first. The analysis shall measure the Total Base Number, the oil viscosity, and the percent water content. The oil and filter shall be changed if any of the following limits are exceeded:
 - (a) The tested Total Base Number is less than 30 percent of the Total Base Number of the oil when new.
 - (b) The tested oil viscosity has changed by more than 20 percent from the oil viscosity when new.
 - (c) The tested percent water content (by volume) is greater than 0.5 percent.
2. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.1.b.vi (Emergency Backup Generator, Emergency Fire Water, and Well Kill Pump Maintenance Requirements)**

(vi) Three engines, the diesel fired 510 bhp Standby Emergency Generator (ID 004850), the diesel fired 110 bhp Fire Water Pump (ID 004851), and the 318 bhp Well Kill Pump (ID 004856) are subject to the following requirements:

1. Change the oil and filter every 500 hours of operation or annually, whichever comes first. In place of changing the oil every 500 hours of operation or annually, the operator may analyze the oil of each engine every 500 hours of operation or annually, whichever occurs first. The analysis shall measure the Total Base Number, the oil viscosity, and the percent water content. The oil and filter shall be changed if any of the following limits are exceeded:
 - (a) The tested Total Base Number is less than 30 percent of the Total Base Number of the oil when new.
 - (b) The tested oil viscosity has changed by more than 20 percent from the oil viscosity when new.
 - (c) The tested percent water content (by volume) is greater than 0.5 percent.
2. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.2.a-d (Fugitive Hydrocarbon Emissions Components)**

C.2 The following equipment is included in this emissions unit category:

ID No.	Equipment. Item Name, Number of Component Leak Paths/item
	<i>Oil Service Components</i>
102718	Components -- Controlled (4,984 component leak paths)
102719	Components -- Unsafe (301 component leak paths)
	<i>Gas/Light Liquid Service Components</i>
102717	Components -- Controlled (1,317 component leak paths)
105826	Components -- Unsafe (116 component leak paths)

- (a) Emission Limits: Emissions from equipment items listed in the table above shall meet the limits listed for these items in Tables

5.1-3 and 5.1-4 of this permit. Compliance with these limits shall be assessed through compliance with the monitoring, record-keeping and reporting (MRR) conditions listed in this permit. *(Reference: OCS PTO 9109)*

- (b) Operational Limits: Operation of the equipment listed in this section shall conform to the requirements listed in District Rule 331.D and E. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping, and reporting conditions in this permit. In addition POO-LLC shall meet the following specific requirements:
- (i) The District-approved I&M Plan for Platform Houchin shall be implemented for the life of the facility. The Plan, and any subsequent District-approved revisions, is incorporated by reference as an enforceable part of this permit.
 - (ii) The total leak-path component counts listed in POO-LLC's most recent I&M component leak-path inventory (*e.g., Avanti Report to the District dated 8/6/2001*) shall not exceed the total leak-path component counts listed in the Table above (Section 9.C.2) and the Table 5.1-1 by more than five percent.
 - (iii) All routine venting of hydrocarbons shall be routed to either the sales compressor, flare header, injection well or other District-approved control device.

(References: District Rule 331, 40 CFR 70.6.a.3.(iii), OCS PTO 9109)

- (c) Monitoring: The equipment listed in this section is subject to all the monitoring requirements listed in District Rule 331.F. The test methods in Rule 331.H shall be used, when applicable.

(References: District Rule 331, 40 CFR 70.6.a.3.(iii))

- (d) Recordkeeping: All inspection and repair records shall be retained at the source for a minimum of five years. The equipment listed in this section is subject to all the recordkeeping requirements listed in District Rule 331.G. In addition, POO-LLC shall do the following:

POO-LLC shall record in a log the following:

- a record of leaking component-leak-paths found (including name, location, type of component-leak-path, date of leak detection, the ppmv reading, date of repair attempt, method of detection, date of re-inspection and ppmv reading after leak is repaired);

- a record of the total component leak paths inspected and the total number and percentage found leaking by component-leak-path type;
- a record of leaks from critical component-leak-paths;
- a record of leaks from component-leak-paths that incur five repair actions within a continuous 12-month period;
- a record of component-leak-path repair actions including dates of component-leak-path re-inspections; and
- calibration records of Organic Vapor Analyzer including dates and methods of calibration and repair

[References: District Rule 331]

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.6.b.ii-iv (Combustion Equipment – Flare Operational Limits)**
 - (b) Operational Limits:
 - (ii) *Ignition System* - The outlet shall be equipped with an automatic ignition system including a pilot-light gas source or equivalent system, or, shall operate with a pilot flame present at all times - with the exception of purge periods for automatic-ignition equipped flares or thermal oxidizers.
 - (iii) *Flame Monitoring* - The presence of the flame in the pilot of the flare shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame.
 - (iv) *Flame Operation* - The flame shall be operating at all times when combustible gases are vented through the flare.
- **Part 70 Permit to Operate 9109-R4, Condition 9.C.9 (Produced Gas)**

C.9 **Produced Gas.** POO-LLC shall direct all produced gases to the sales compressors, the flare header or other permitted control device when degassing, purging or blowing down any oil and gas well or tank, vessel or container that contains reactive organic compounds or reduced sulfur compounds due to activities that include, but are not limited to, process or equipment turnarounds, process upsets (e.g., well spikes), well blowdown and Bureau of Safety and Environmental Enforcement ordered safety tests. [Reference: District Rules 325, 331, PTO 9109]

- **District Rule 325.E**
 - E. Requirements for Produced Gas
 - 1. The emissions of produced gas shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system, to one of the following:
 - a. A system handling gas for fuel, sale, or underground injection.
 - b. A flare that combusts reactive organic compounds,
 - c. A device with a reactive organic compound vapor removal efficiency of at least 90% by weight.
 - 2. The provisions of Section E.1 shall not apply to wells which are undergoing routine maintenance.

- **District Rule 359.D.2.b - Requirements**
 - 2. Technology-based Standard

The owner or operator of any source subject to this Rule shall comply with the following technology standards:

 - b. All new and existing flares and thermal oxidizers shall comply with the following:
 - 1) The outlet shall be equipped with an automatic ignition system including a pilot-light gas source or equivalent system, or, shall operate with a pilot flame present at all times -- with the exception of purge periods for automatic-ignition equipped flares or thermal oxidizers.
 - 2) The presence of the flame in the pilot of the flare or the thermal oxidizer shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame, unless such device(s) can be demonstrated by the permittee to be infeasible, based on engineering, safety or costs constraints, and to the satisfaction of the Control Officer; and,
 - 3) The flame shall be operating at all times when combustible gases are vented through the flare or thermal oxidizer.

- **District Rule 331 – Fugitive Emissions Inspection and Maintenance (see Attachment 1 for District Rule 331)**

The Petitioner has requested the below permit conditions be removed from the Variance Order.

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.1.c.i (Monitoring)**
 - (i) *North Crane Source Testing:* POO-LLC shall source test the air emissions and process parameters of the North Crane IC Engine and Well Service Rig engine biennially, in accordance with Table 4.1 and Condition C.15 of this permit (within thirty days, or other District-approved date, of the units' source test anniversary date) for compliance with applicable emission limits.

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.14 (Process Stream Sampling and Analysis)**

C.14 POO-LLC shall sample and analyze the process streams listed in Section 4.12.2 of this permit according to the methods and frequency detailed in that Section. All process stream samples shall be taken according to District approved ASTM methods and must follow traceable chain of custody procedures

- **Part 70 Permit to Operate 9109-R4, Condition 9.C.15 (Source Testing)**

C.15 The following source testing provisions shall apply:

 - (i) POO-LLC shall conduct source testing of air emissions and process parameters listed in Section 4.12 and Table 4.1 of this Permit to Operate. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the APCO, occur. Source testing of the North Crane engine shall be performed on a biennial schedule using October 2001 as the initial test date. Source testing of the Well Service Rig engine shall be performed biennially, using December 2008 as the initial test date. The crane and rig engines shall be loaded to the maximum safe load obtainable. Source testing of one crew boat and one supply boat shall occur on an annual basis, and testing shall be completed by December 31 each year. The crew and supply boat main engines shall be tested at normal cruise speeds (minimum of 70% of maximum engine load).

 - (iii) Source testing for the Drill Rig 23 engines shall be required for NO_x, CO, and ROC if the result from a portable analyzer reading (required by Condition 9.C.1.(c)(ix) of this permit) 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. 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 by Condition 9.C.1.(a)(ii) 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 Condition 9.C.1.(a)(ii) of this permit in any source test, it shall be source tested every two years thereafter.

- (iv) If requested in writing by the District, a source test for the Drill Rig 23 engines 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 engine exhaust. Source testing shall be conducted at typical engine operating conditions.
- (iv) POO-LLC shall submit a written source test plan to the District for approval at least thirty (30) calendar 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). POO-LLC 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.
- (v) 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 on the equipment item on the scheduled test day. 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. 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. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's prior authorization, except in the case of an emergency, 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.
- (vi) 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 demonstrate compliance with emission rates in Section 5 and

applicable permit conditions. All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by POO-LLC as provided for by District Rule 210. The timelines in (ii), (iii), and (iv) above 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.

7.0 **EMISSIONS ANALYSIS:** The excess emissions associated with the granting of Variance Order 2021-04-R resulted in approximately 40.74 tons of ROC through November 2021. The excess emissions report for December 2021 is not yet due. The excess emissions associated with the granting of this Variance are expected to be similar to the previous variance, however, as repairs are made, the excess emissions could decrease.

8.0 ***RESERVED***

9.0 **OTHER FACTORS:** None.

10.0 **DISTRICT RECOMMENDATION:** The District supports the Petitioner's variance request.

11.0 **ATTACHMENTS:**

- Attachment 1 – District Rule 331 – Fugitive Emissions Inspection and Maintenance
- Attachment 2 – Regular Variance Order 2021-04-R
- Attachment 3 – Monthly Regular Variance Order 2021-04-R updates
- Attachment 4 – Draft Modification Variance Order 2021-04-M1



Aimee Long, Air Quality Specialist
Compliance Division

December 17, 2021
Date