



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2017-03-R

DATE: February 01, 2017

1.0 **GENERAL INFORMATION:**

- 1.1 **PETITIONER NAME:** ExxonMobil Production Company (ExxonMobil)
- 1.2 **EQUIPMENT LOCATION:** Petitioner operates the equipment described in the Petition on Offshore lease tract OCS-P-0190
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 9101
- 1.4 **FACILITY NAME/ID:** Platform Harmony, FID 08018
- 1.5 **FACILITY DESCRIPTION:** Platform Harmony is part of the *Exxon – Santa Ynez Unit (SYU) Project* stationary source (SSID # 01482). The *Exxon – SYU Project* stationary source consists of five facilities: Platform Harmony (FID 08018), Platform Heritage (FID 08019), Platform Hondo (FID 08009), Las Flores Canyon Oil and Gas Plant (FID 01482), and POPCO Gas Plant (FID 03170). ExxonMobil Production Company (ExxonMobil), an unincorporated division of Exxon Mobil Corporation, is the sole owner and operator of the facility.

- 2.0 **REASON FOR THE VARIANCE REQUEST:** As a result of the Plains All American Pipeline (AAPL) Line 901 failure on May 19, 2015, ExxonMobil experienced facility impacts. Due to these impacts, SYU onshore and offshore facilities are preparing for an extended suspension of operations. On June 16, 2015, all platform gas being sent onshore was terminated. Facility equipment is not operating normally and is being preserved to manage its integrity over the longer term. This preservation process may involve the temporary and intermittent use of equipment, not reflective of normal operating conditions. Line 901 remains shutdown and Plains continues to work with local and federal agencies to reestablish pipeline operations. Although it is unclear when the restart of the Petitioners facility may occur, it is anticipated that all of the equipment will eventually be operated again. Since the facility is not in operation, the Petitioner is requesting coverage from performing measurement and/or recordkeeping of process parameters that do not exist during this extended shutdown. Any emissions related to the granting of this variance are expected to be within permitted limits.

- 3.0 **BACKGROUND:** A Petition for Variance Order 2017-03-R was submitted on January 10, 2017 by ExxonMobil Production Company. If granted, 2017-03-R would grant enforcement relief from February 01, 2017 through January 31, 2018, or the date the facility resumes operations, whichever occurs first. A Regular Variance was requested due to the unknown timeline for the AAPL repair.

- 4.0 **PERMITTING HISTORY:** Since the original permitting of Platform Harmony, PTO 9101 has been re-evaluated numerous times, with the most recent being in March of 2016.

5.0 COMPLIANCE HISTORY: The permit conditions listed in 6.0 have historically been performed in compliance with District rules and regulations.

6.0 REGULATORY ANALYSIS: The following permit conditions of Part 70 Permit to Operate 9101 and rule requirements are applicable to the variance request:

- **Condition 9.C.2 (Combustion Equipment – Central Process Heater)**

- c. *Monitoring: The equipment in this section are subject to all the monitoring requirements listed in District Rule 342.E, G and I. The test methods In Rule 342.H shall be used. In addition, ExxonMobil shall:*
 - i. *Fuel Meters - The amount of fuel combusted in the Central Process Heater shall be measured using permanently installed District-approved in-line fuel meter. Alternative methods for determining propane usage may be proposed by ExxonMobil for District review and approval.*
 - 1. *The hourly fuel rate (scfh) of the fuel combusted by the CPH shall be measured by a District-approved fuel metering system.*
 - 2. *On a quarterly basis, a produced gas sample shall be obtained and analyzed for high heating value (Btu/scf).*
 - ii. *Central Process Heater Monitoring Plan – ExxonMobil shall collect and analyze a produced gas sample for HHV according to the District approved Central Process Heater Monitoring Plan. The District may approve a revision to the plan, reducing the frequency of sampling and reporting required for the higher heating value at their discretion. The District will assess the appropriateness of reducing the sampling and reporting frequency on a quarterly basis, and inform ExxonMobil in writing of the modified sampling and reporting requirements, if any. The plan modifications will not be enforceable until ExxonMobil submits a plan revision for District approval.*
 - v. *Natural Gas Fuel Data - ExxonMobil shall monitor the sulfur content of the natural gas fuel using an in-line continuous hydrogen sulfide analyzer. This analyzer shall be operated consistent with the requirements of the District's CEM Protocol document (dated October 22, 1992 and subsequent updates), where applicable. The readings from this analyzer shall be adjusted upward to take into account the average non-hydrogen sulfide reduced sulfur compounds in the fuel gas (if any). ExxonMobil shall implement the District-approved Fuel Gas Sulfur Reporting Plan for the life of the project. This Plan shall detail: the monitoring equipment and CEM protocol procedures, the adjustments to the hydrogen sulfide readings due to non-hydrogen sulfide reduced sulfur compounds and the reporting methods for compliance with the applicable limits. ExxonMobil shall submit the lab analyses reports to the District.*
 - vii. *ExxonMobil shall monitor all the parameters required by the Platform Harmony Central Heater Monitoring Plan approved December 27, 2012, or the most recent District-approved version of the Plan.*
- d. *Recordkeeping: The equipment listed in this section are subject to all recordkeeping requirement listed in Rule 342.I. In addition, ExxonMobil shall:*
 - i. *Natural Gas Fuel Use - Daily, quarterly and annual fuel use for the Central Process Heater in units of standard cubic feet.*
 - ii. *Sulfur Content - A monthly log of the total sulfur content of the natural gas and propane combusted as fuel gas.*
 - iv. *Hourly Heat Input - Record in a log or electronic file the calculated heat input (MMBtu/hr) for each hour of operation. The heat input shall be calculated*

from the measured hourly fuel rate and the latest quarterly higher heating value result from the fuel analysis.

- v. *ExxonMobil shall maintain records as required by the Platform Harmony Central Heater Monitoring Plan approved December 27, 2012, or the most recent District-approved version of the Plan.*

- **Condition 9.C.3 (Combustion Equipment – Flare)**

- d. *Monitoring: The equipment in this section are subject to all monitoring requirements listed in District Rule 359.G. The test methods In Rule 359.E. shall be used. In addition, ExxonMobil shall:*

- i. *Flare Volumes - The volumes of gas flared during each planned event shall be monitored by use of District-approved flare header flow meters. Unplanned flaring shall be monitored on an aggregate basis and shall be the difference between the total flare volume and the volume of gas flared during planned flaring events. The meters shall be calibrated and operated consistent with ExxonMobil's District approved Process Monitor Calibration and Maintenance Plan. An event is defined as any flow recorded by the flare header flow meters that exceeds the event flow rate thresholds listed below where the duration is 60 seconds or greater. During an event, any subsequent flows recorded by the flare header flow meter within 5 minutes after the flow rate drops below the minimum detection level of the meter shall be considered as part of the event.*
 - 1. *All planned flaring not classified as an event pursuant to the above definition shall be aggregated as a single quarterly volume and recorded in the Planned Other flaring category. Notwithstanding the above definition of an event, continuous flaring is prohibited for the Planned Other and Unplanned Other flaring categories.*
- ii. *Purge/Pilot Gas - ExxonMobil shall continuously monitor the purge/pilot fuel gas using H2S analyzer. ExxonMobil shall also perform annual total sulfur content and HHV measurements of the fuel gas using ASTM or other District-approved methods. ExxonMobil shall utilize District-approved sampling and analysis procedures.*
- iii. *Flaring Sulfur Content - The hydrogen sulfide content of produced gas combusted during flaring events shall be measured on the schedule pursuant to the District-approved Flare Gas Sulfur Reporting Plan using District-approved ASTM methods. On an annual basis, ExxonMobil shall also measure the non-hydrogen sulfide reduced sulfur compounds and these values shall be added to the hydrogen sulfide measurements to obtain the total sulfur content. ExxonMobil shall perform additional testing of the sulfur content and hydrogen sulfide content, using approved test methods, as requested by the District.*
- v. *Pilot Flame Detection - ExxonMobil shall continuously monitor each pilot to ensure that a flame is present at each pilot at all times.*

- e. *Recordkeeping: The equipment listed in this section is subject to all recordkeeping requirements listed in Rule 359.H. In addition, ExxonMobil shall:*

- ii. *The total volume of gas combusted and resulting in mass emissions of all criteria pollutants from unplanned flaring events shall be summarized for each quarter and year.*
- iii. *Pilot/Purge Gas Volume - The volume of pilot/purge fuel gas combusted in the flare shall be recorded on a weekly, quarterly and annual basis.*

- **Condition 9.C.4 (Fugitive Hydrocarbon Emissions Components)**

- *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 ExxonMobil shall meet the following requirements:*
 - *i. VRS Use - The vapor recovery and gas collection (VR & GC) systems at Platform Harmony shall be in operation when equipment connected to these systems are in use. These systems include piping, valves, and flanges associated with the VR & GC systems. The VR & GC systems shall be maintained and operated to minimize the release of emissions from all systems, including pressure relief valves and gauge hatches.*
- **Condition 9.C.7 (Tanks/Sumps/Separators)**
 - *b. Operational Limits: All process operations from the Group A equipment listed in this section shall meet the requirements of District Rule 325, Sections D.3, D.4, E, F and G. All process operations from the Group B equipment listed in this section shall meet the requirements of District Rule 325, Sections F.5 and F.6. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition, ExxonMobil shall:*
 - *i. VRS Use - The vapor recovery systems shall be in operation when the equipment connected to the VRS system at the facility are in use. The VRS system includes piping, valves, and flanges associated with each VRS system. Each VRS system shall be maintained and operated to minimize the release of emissions from all systems, including pressure relief valves and gauge hatches.*
 - *d. Recordkeeping: The equipment listed in this section is subject to all the recordkeeping requirements listed in District Rule 325.F. In addition, ExxonMobil shall maintain logs for the information listed below. These logs shall be made available to the District upon request:*
 - *1. On a monthly basis, the total oil emulsion and produced gas production along with the number of days per month of production*
- **Condition 9.C.10 (Compliance Verification Reports)**
 - *Twice a year, ExxonMobil shall submit a compliance verification report to the District. Each report shall document compliance with all permit, rule or other statutory requirements during the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and the second report shall cover calendar quarters 3 and 4 (July through December). The reports shall be submitted by March 1st and September 1st each year. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit and shall document compliance separately for each calendar quarter. These reports shall be in a format approved by the District. Compliance with all limitations shall be documented in the submittals. All logs and other basic source data not included in the report shall be made available to the District upon request. The second report shall also include an annual report for the prior four quarters. Pursuant to Rule 212, a completed District Annual Emissions Inventory questionnaire should be included in the annual report or submitted electronically via the District website. ExxonMobil may use the Compliance Verification Report in lieu of the Emissions Inventory questionnaire if the format of the CVR is acceptable to the District's Emissions Inventory Group and if ExxonMobil submits a statement signed by a responsible official stating that the information and calculations of quantifies of emissions of air pollutants presented in the CVR are accurate and complete to best knowledge of the individual certifying the statement. The report shall include the following information:*
 - *b. Central Process Heater.*

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- Platform Harmony production shall be limited to a monthly average of 75,000 barrels of oil emulsion¹ per day and 75 million standard cubic feet of produced gas per day. ExxonMobil shall record in a log the volumes of oil emulsion and gas produced and the actual number of days in production per month. The above limits are based on actual days of operation during the month. [Re: PTO 9101]
- **Condition 9.C.24 (Documents Incorporated by Reference)**
 - The documents listed below, including any District-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition for this operating permit. These documents shall be implemented for the life of Platform Harmony.
 - d. Flare Gas Sulfur Reporting Plan (approved 12/23/1994).
 - e. Process Monitor Calibration and Maintenance Plan (approved 05/05/2010).
 - j. Fuel Gas Sulfur Reporting Plan (approved 11/13/1995)
 - m. Platform Harmony Central Process Heater Monitoring Plan (approved 12/27/12)
- **Rule 325 (Crude Oil Production and Separation)**
 - 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:
 - b. A flare that combusts reactive organic compounds.
 - F (Requirements – Recordkeeping)
 - 4. The operator shall maintain the following records annually:
 - b. The maximum vapor pressure of the liquid
 - d. The American Petroleum Institute gravity of the oil in the tanks.
- **Rule 342 (Control of Oxides of Nitrogen (NO_x) from Boilers, Steam Generators, and Process Heaters)**
 - I. Recordkeeping
 - 1. The owners or operators of units subject to Section D of this rule shall monitor and record for each unit the Higher Heating Value and cumulative annual usage of each fuel.
- **Rule 359 (Flares and Thermal Oxidizers)**
 - F. Source Testing
 - Any owner or operator of a source subject to this Rule shall perform the following:
 - 2. Measure (a) the purge gas fuel sulfur content, if such gas is not a PUC quality gas or an inert gas, and (b) the gaseous fuel sulfur content and the net heating value for all gaseous fuel which constitute planned flaring. Measurement shall be performed triennially, except for sources which require federal Part 70 operating permits, in which case annual or more frequent testing shall be performed as required by applicable Part 64 Rules.

- G. *Monitoring and Recordkeeping*
 - Any owner or operator of a source subject to this Rule shall perform the following, as applicable:
 - 1. Monitor the volume (in scf/month) of all gaseous fuel flared as part of planned/unplanned flaring, if subject to Section D.3. A flare volume monitoring plan shall be submitted to the Control Officer for approval as part of the flare minimization plan. A record of monitored volumes shall be kept by the owner or operator in a format prescribed and approved by the Control Officer, and shall be available for inspection upon request by the District.
- H. *Reporting*
 - Any owner or operator of a source subject to this Rule shall provide the following reports, as applicable:
 - 2. The result of each test report for (a) purge gas S content (if applicable), (b) gaseous fuel S content and (c) gaseous fuel net heating value, obtained pursuant to Section F.2, shall be submitted to the Control Officer by March 1st of the year following the calendar year on which the testing occurred.
 - 3. Data for the monthly volumes (in scf/month) of gas flared per (i) planned continuous and (ii) planned intermittent flaring categories, obtained pursuant to Section G.1, shall be submitted annually to the Control Officer. Each calendar year data report shall be submitted by March 1st of the following calendar year.

7.0 **EMISSIONS ANALYSIS:** Any emissions related to the granting of this variance are expected to be within permitted limits.


8.0 **RESERVED**

9.0 **OTHER FACTORS:** none

10.0 **DISTRICT RECOMMENDATION:** The District supports the Petitioner's request and recommends the granting of a Regular Variance for ExxonMobil as listed in the attached draft variance order.

11.0 **ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 2017-03-R


Mike McKay, Inspector
Compliance Division

01/13/17
Date