



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2016-23-R

DATE: September 07, 2016

1.0 **GENERAL INFORMATION:**

- 1.1 **PETITIONER NAME:** ExxonMobil Production Company (ExxonMobil)
- 1.2 **EQUIPMENT LOCATION:** Petitioner operates the equipment described in the Petition at the Pacific Offshore Pipeline Company Gas Plant located at 12000 Calle Real, Goleta, CA and Platform Heritage located in the Santa Ynez Unite (SYU) on lease tract OCS-P-0182 approximately 25 miles west of Santa Barbara, CA
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 8092 and Part 70/Permit to Operate 9102
- 1.4 **FACILITY NAME/ID:** POPCO, FID 03170 and Platform Heritage, FID 08019
- 1.5 **FACILITY DESCRIPTION:** The Pacific Offshore Pipeline Company (POPCO) Gas Plant and Platform Heritage are 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). POPCO, a subsidiary of Exxon Mobil Corporation, owns the POPCO Gas Plant. ExxonMobil Production Company (ExxonMobil), an unincorporated division of Exxon Mobil Corporation, operates the POPCO Gas Plant. ExxonMobil also owns and operates Platform Heritage.

POPCO has operated the existing gas processing plant since 1984, processing raw sour gas produced from the SYU oil and gas field located in the Outer Continental Shelf. The POPCO Gas Plant facility currently includes a Sulfur Removal Unit, two 41.000 MMBtu/hr steam boilers, two tri-ethylene glycol reboilers, an electrically driven propane refrigerant gas treatment system, and a thermal oxidation unit. The facility also has many other permitted pieces of equipment including, but not limited to, storage tanks and four IC engines.

Platform Heritage is an eight leg, 60 well slot platform that produces natural gas and crude oil. Emulsion and produced gas from Platform Heritage is shipped via subsea pipeline to Platform Harmony and then onto ExxonMobil's onshore processing facilities in Las Flores Canyon (LFC). The design production rate for Platform Heritage is 75 thousand barrels of emulsion per day and 75 million standard cubic feet of produced gas per day. The emission sources associated with Platform Heritage include crew, supply and emergency response boats, piping components (such as valves and flanges), a flare, helicopters, solvent cleaning, a process heater, and IC engines.

- 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 incoming platform gas 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. At this time, it is unclear when the restart of the Petitioners facility may occur. Per Health and Safety Code §42357, the Petitioner is requesting a Modification of Final Compliance Date, extending variance coverage through September 29, 2017. There are no expected emissions related to the granting of the Petitioners request.
- 3.0 BACKGROUND:** An application was submitted on August 09, 2016 by ExxonMobil Production Company to consider a Modification of a Final Compliance Date of Regular Variance 2015-26-R, which granted enforcement relief from September 30, 2015 through September 29, 2016. If granted, 2016-23-R would grant enforcement relief from September 30, 2016 through September 29, 2017, 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:** The POPCO Gas Plant was permitted in two phases. The first phase was constructed 1980 under District Rule 205. While the second phase was constructed in 1984 and routine operations began. Platform Heritage was installed during the 1989 to 1992 time frame. The first Authority to Construct was issued for Platform Heritage in 1993 in the same year that drilling operations began.
- 5.0 COMPLIANCE HISTORY:** Historically, the conditions described in Section 6.0 have not been violated.
- 6.0 REGULATORY ANALYSIS:** The following permit conditions of Part 70 Permit to Operate 8092-R8 are applicable to the variance request:
- **Condition 9.C.1(c)**
 - *Monitoring: The Utility Boilers in this section are subject to all the monitoring requirements listed in Table 4.10 and District Rule 342.E, G and I. The source test methods in Rule 342.H shall be used.*
 - **Condition 9.C.1(c)(iv)**
 - *CEMS - POPCO shall monitor the emission and process parameters listed in Table 4.10 for the life of the project POPCO and shall maintain and operate continuous in stack monitoring equipment for the Utility Boilers for emissions of nitrogen oxides (as NO₂) and sulfur oxides (as SO₂) consistent with District Rule 328, the District-approved CEMS Plan for the POPCO facility and Table 4.10.*
 - **Condition 9.C.1(c)(v)**
 - *Boiler Fuel Gas Data – POPCO shall monitor the total sulfur content of the plant fuel gas used in the Utility Boilers by (a) weekly sorbent tube (or equivalent District-approved) readings of hydrogen sulfide, and (b) quarterly gas samples for third party lab*

analyses for hydrogen sulfide, total reduced sulfur compounds and higher heating value (HHV). The readings from the weekly sorbent tubes shall be adjusted upward to take into account the non-hydrogen sulfide reduced sulfur compounds in the fuel gas from the last analysis. The District may require more frequent lab analyses upon request. POPCO shall utilize the District-approved Fuel Gas Sulfur and HHV Reporting Plan.

- **Condition 9.C.3(c)(i)**
 - *ERCs for Platform Heritage Low/Intermediate Pressure and High Pressure Projects - POPCO shall perform quarterly monitoring on a minimum of 434 standard (i.e., non-bellows seal and non-low emissions) valves and a minimum of 1,302 standard flanges/connections at 100 ppmv leak detection threshold in order to generate 0.263 tpq of ROC ERCs of the total required for projects permitted by ATC 11132. These components will be listed in a separate table in POPCO's I&M Plan. POPCO shall replace any component on the list with a replacement if the component is no longer in hydrocarbon service. The District shall be notified, in writing, of all such replacements within ninety (90) days after the replacement. The notification shall include complete equipment description information equivalent to the table in POPCO's District approved I&M Plan and the reason for the replacement. Subsequent I&M records and reports shall include the replacement component(s).*
- **Condition 9.C.7(a)**
 - *Emission Limits: Except for startup and shutdown operations as defined in Table 4.5, mass emissions from the Sulfur Recovery Plant (SRU) and Tailgas Unit shall not exceed the limits specified in Tables 5.3, 5.4 and 5.5. During startup and shutdown operations, the emissions of SO_x (as SO₂) from the SRU listed as (Combined B-801 A/B Stack Emissions) shall not exceed the limits as listed in Table 5.5. Compliance shall be based on sliding-one hour readings of 15-minute averages (or less) through the use of process monitors (e.g., fuel use meters) and CEMS; and the monitoring, recordkeeping and reporting condition of this permit. For pollutants without CEMS monitors, the permitted emission factors in Table 5.2 shall be used.*
- **Condition 9.C.7(c)**
 - *Monitoring: POPCO shall monitor the emission and process parameters listed in Tables 4.9 through 4.12 for the life of the project. POPCO shall perform annual source testing of the SRU consistent with the requirements listed in Table 4.14 and the source testing permit condition below.*
- **Condition 9.C.7(c)(i)**
 - *Process Monitors – POPCO shall install and maintain in-plant process monitors as shown in Figure 4.1 and Table 4.9 for the life of the project*
- **Condition 9.C.12 (Continuous Emission Monitoring)**
 - *POPCO shall implement a CEM program for emissions and process parameters as specified in Section 4.11 and Tables 4.9 through 4.12 of this permit. POPCO shall implement the District-approved CEM Plan. The CEM monitors shall be in place and functional for the life of the project. The District shall use the CEM data alone, or in combination with other data, to verify and enforce project conditions. Excess mass emissions indicated by the CEM systems shall be considered a violation of the applicable mass emission limits.*

- **Condition 9.C.12(a)**
 - *The monitoring devices shall meet the requirements set forth in District Rule 328 and 40 CFR 51 and 40 CFR 60. Monitors must be installed, maintained, and operated in accordance with District and EPA requirements, as specified in the CFR and the District-approved CEM Plan and with manufacturer's specifications.*
- **Condition 9.C.12(f)**
 - *POPCO shall maintain and operate continuous in stack monitoring equipment for the mass emissions (lb/hr basis) of nitrogen oxides (as NO₂) and sulfur oxides (as SO₂) from each Utility Boiler (B-801 A and B). POPCO shall compute and telemeter the sliding hourly average for nitrogen oxide emissions (lb/hr) and sulfur oxide emissions (lb/hr) individually from Utility Boiler B-801 A and B.*
- **Condition 9.C.13 (Data Telemetry)**
 - *POPCO shall telemeter monitoring data to the District as specified by Conditions C.12 (Continuous Emission Monitoring) and C.16 (Ambient Air Quality and Odor Monitoring Program) of this permit. The data telemetry equipment shall be in place and functional for the life of the project consistent with the above-specified conditions. This telemetry equipment shall be compatible with the District's Central Data Acquisition System. Table 9.1 (CEMs Parameters to Be Telemetered to The Data Acquisition System (DAS)), defines the parameters required to be telemetered to the DAS (excluding Ambient Air Quality and Odor Monitoring Program data). [Re: PTO 8092, PTO 9215]*
- **Condition 9.C.20 (Process monitoring Systems- Operation and maintenance)**
 - *All facility process monitoring devices listed in Section 4.11.2 of this permit shall be properly operated and maintained according to manufacturer recommended specifications. POPCO shall implement the District approved Process Monitor Calibration and Maintenance Plan for the life of the project. This Plan details the manufacturer recommended maintenance and calibration schedules. Where manufacturer guidance is not available, the recommendation of comparable equipment manufacturers and good engineering judgment is utilized. [Re: ATC 9047]*
- **Condition 9.C.21 (Fuel Gas Sulfur and HHV Reporting Plan)**
 - *Fuel Gas Sulfur and HHV Reporting Plan. POPCO shall implement the District-approved Fuel Gas Sulfur and HHV Reporting Plan for the life of the project. This Plan shall detail for each unique fuel supply: the monitoring equipment (and CEM protocol procedures if applicable), 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. At a minimum, the non-H₂S total sulfur adjustment shall occur on a quarterly basis. POPCO shall maintain records of the daily fuel gas analyses in a log (using a District-approved format).*

The following permit conditions of Part 70 Permit to Operate 9102-R5 are applicable to the variance request:

- **Condition 9.C.4(c)(i)**
 - *ERCs for Platform Heritage Low/Intermediate Pressure and High Pressure Projects - ExxonMobil shall perform quarterly monitoring on a minimum of 118 standard (i.e., non-bellows seal and non-low emissions) valves and a minimum of 370 standard flanges/connections at 100 ppmv leak detection threshold. These monitoring requirements must be fulfilled in order to generate 0.115 tpq of ROC ERCs of the total required for projects permitted by ATC 11132 Mod-01. These components are listed in a*

separate table in ExxonMobil's District approved I&M Plan. ExxonMobil shall replace any component on the list with a replacement if the component is no longer in hydrocarbon service. The District shall be notified, in writing, of all such replacements within ninety (90) days after the replacement. The notification shall include complete equipment description information equivalent to the table in ExxonMobil's District approved I&M Plan and the reason for the replacement. Subsequent I&M records and reports shall include the replacement component(s).

The following rule requirements are applicable to the variance request:

- **Rule 311 (Sulfur Content of Fuels)**
 - *No person shall burn within any portion of the Southern Zone any gaseous fuel containing sulfur compounds in excess of 15 grains per 100 cubic feet (calculated as hydrogen sulfide at standard conditions) or any liquid or solid fuel having a sulfur content in excess of 0.5 percent by weight.*
- **Rule 328 (Continuous Emissions Monitoring)**
 - *Install, calibrate, operate, and maintain in good working order equipment for continuously monitoring and recording emissions from a stationary source.*
- **Rule 342 (Control of Oxides of Nitrogen (NO_x) from Boilers, Steam Generators and Process Heaters)**
 - *This rule applies to boilers, steam generators, and process heaters with rated heat inputs greater than or equal to 5 million Btu per hour used in all industrial, institutional, and commercial operations.*
- **Rule 359 (Flares and Thermal Oxidizers)**
 - *This Rule shall, on the date of its adoption, supersede the fuel combustion provisions of Rule 311 only insofar as these fuel combustion provisions apply to flares and thermal oxidizers.*

7.0 **EMISSIONS ANALYSIS:** Excess emissions are not expected as a result of granting this variance.

8.0 **RESERVED**

9.0 **OTHER FACTORS:** none

10.0 **DISTRICT RECOMMENDATION:** The APCD 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 2016-23-R

FOR Kaitlin McNally
Mike McKay, Inspector
Compliance Division

8/25/16
Date