



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2016-15-M2

DATE: May 1, 2019

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 12000 Calle Real, Goleta, CA
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 8092-R9
- 1.4 **FACILITY NAME/ID:** POPCO, FID 03170
- 1.5 **FACILITY DESCRIPTION:** The Pacific Offshore Pipeline Company (POPCO) Gas Plant 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). POPCO, a subsidiary of ExxonMobil Corporation, owns the facility. ExxonMobil Production Company (ExxonMobil), an unincorporated division of ExxonMobil Corporation, operates the facility. The POPCO facility has operated as a 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.

- 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 Production Company has shut down operations and facility equipment has been preserved to manage its integrity. Because the facility is shut down, the Petitioner is unable to perform source testing on multiple pieces of permitted equipment. The Petitioner is currently operating under Regular Variance Order 2016-15-M1, which provides relief from the below conditions through June 25, 2019 (or within 90 days of POPCO resuming the processing of platform gas, whichever occurs first). Per Health and Safety Code §42357, the Petitioner is requesting a modification of final compliance date for Regular Variance 2016-15-M1 to extend coverage through June 25, 2021 (or within 90 days of POPCO resuming the processing of platform gas, whichever occurs first). There are no expected emissions related to the granting of the Petitioners request.

- 3.0 **BACKGROUND:** An application was submitted on April 8, 2019, by ExxonMobil to consider a modification of Regular Variance 2016-15-M1, to extend relief coverage from June 26, 2019 through June 25, 2021 (or within 90 days of POPCO resuming the processing of platform gas, whichever occurs first), 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 in 1980 under District Rule 205. While the second phase was constructed in 1984 and routine operations began. Modifications to the Sulfur Recovery Unit (SRU) were made in 1997.
- 5.0 **COMPLIANCE HISTORY:** The source tests and Relative Accuracy Test Audits 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 8092-R9 and rule requirements are applicable to the variance request:
- **Condition 9.C.1(c)(iii)**
 - *Source Testing - POPCO shall source test the Utility Boilers according to the Source Testing condition in this permit. More frequent testing may be required, as determined by the District, if full operating loads have not been achieved.*
 - **Condition 9.C.5(b)(v)**
 - *The source test condition 9.C.18 shall be adhered to, and the source test plan shall address the following items:*
 - (1) *A process description of the tank and the flows into the tank.*
 - (2) *Operational conditions during the test, and how they will be representative of worst-case operations/throughputs*
 - (3) *The duration of the test and how it will address breathing and working losses*
 - (4) *Measurement of tank inflow rates*
 - (5) *The procedure for determining lb/hr ROC emission rates*
 - **Condition 9.C.7(c)(ii)**
 - *Stretford Unit Oxidizer Tanks - To ensure that hydrocarbon emissions associated with carry-under of hydrocarbons from the Beavon Tailgas into the Stretford unit oxidizers are within permitted limits, POPCO shall source test the tanks on a triennial basis. The source test plan for this test shall include, but not necessarily be limited to the following parameters:*
 - (1) *Stretford oxidation air flow rates (i.e., inlet air to oxidation tanks);*
 - (2) *Bag samples of representative air flow emanating from the oxidizer tanks;*
 - (3) *Analysis of bag samples for reactive hydrocarbon speciation C6+*
 - (4) *A calculation of the apparent mass of reactive hydrocarbons emitted to the atmosphere from the oxidation tanks (lb/hr and tons/yr);*
 - (5) *Data on the Stretford solution and Beavon Tailgas temperatures where the solution contacts Beavon Tailgas; and*
 - (6) *The total Stretford Tailgas flow rate to the Utility Boilers*
 - **Condition 9.C.12 Continuous Emission Monitoring (CEM).**
 - *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.*
 - (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.*

- (b) Performance certification (relative accuracy testing and seven day calibration drift test) of the boiler SO_x & NO_x, inlet feed H₂S and Stretford Tailgas H₂S analyzers shall occur at least once per year, or more often if determined necessary by the District. POPCO shall perform quarterly quality assurance audits as per 40 CFR 60, Appendix F on these analyzers. Additional continuous monitors or redundant systems may be required by the District if problems with the facility or the continuous monitors develop which warrant additional monitoring.
- (c) The required data will be consolidated and submitted to the District within forty-five (45) days after the close of each calendar quarter. More frequent reporting may be required if deemed necessary by the District. Minimum data reporting requirements shall be consistent with District Rule 328 and the approved CEM Plans and (as a minimum) must include the following:
 - (i) Data summaries for each parameter as per the District-approved CEM plan
 - (ii) Monitor downtime summary, including explanation and corrective action
 - (iii) Report on compliance with permit requirements, including any corrective action being taken
- (d) In addition, operator log entries, strip charts, magnetic tapes, computer printouts, circular charts or diskettes, whichever is applicable, shall be provided upon request to the District.
- (e) Pursuant to California HS&C §42706, POPCO shall report all emission exceedances detected by the CEMS to the District within 96 hours of each occurrence.
- (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.
- (g) Inlet Sour Gas Feed H₂S Analyzer – POPCO shall continuously monitor the inlet sour gas H₂S content per 40 CFR 60.646. In the event that the inlet analyzer is non-operational for more than twenty four (24) hours POPCO will follow the District-approved back-up sampling protocol defined in the updated District-approved CEM Plan. [Re: PTO 8092, ATC 9047, PTO 9215]
- **Condition 9.C.18(a)**
 - POPCO shall conduct source testing of air emissions and process parameters listed in Section 4.12 and Tables 4.13, 4.14, and 4.15 of this permit. 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 District, occur. Source testing shall be performed at the frequency specified in Table 4.13 using May-June as the anniversary date for the utility boilers and the SRU. The first semi-annual test of the POPCO boilers shall be completed in December 2009.
- **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.

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

8.0 ***RESERVED***

9.0 **OTHER FACTORS:** none

10.0 **DISTRICT RECOMMENDATION:** The District supports the Petitioner's request and recommends the granting of the attached draft variance order.

11.0 **ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 2016-15-M2



Aimee Long, Air Quality Specialist
Compliance Division



Date