



## HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2016-32-R

DATE: November 02, 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 12000 Calle Real, Goleta, CA
- 1.3 PERMIT NUMBER(S): Part 70/Permit to Operate 8092
- 1.4 FACILITY NAME/ID: Pacific Offshore Pipeline Company (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 Exxon Mobil Corporation, owns the POPCO Gas Plant. ExxonMobil Production Company (ExxonMobil), an unincorporated division of Exxon Mobil Corporation, operates the POPCO Gas Plant. 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.

- 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. Until the facility is able to resume operations, the Petitioner is requesting this Variance to allow for suspension of the permit requirements listed in 6.0 REGULATORY ANALYSIS to perform many measurement and/or recordkeeping procedures of process parameters that are infeasible, impractical or do not exist during this extended shutdown. Upon resumption of platform gas processing, the Petitioner will return to compliance with all conditions listed in 6.0 and the attached draft variance order. At this time, it is unclear when the restart of the Petitioner's facility may occur. There are no expected emissions related to the granting of the Petitioner's request.

**3.0 BACKGROUND:** A Petition for a Regular Variance was submitted on October 11, 2016 by ExxonMobil Production Company. If granted, 2016-32-R would grant enforcement relief from November 02, 2016 through November 01, 2017, or the date the facility resumes platform gas processing, 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.

**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.B.12 (Continuous Emissions Monitoring)**

- *POPCO shall comply with the requirements of Section C, F, G, H and I of Rule 328. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit as well as on-site inspections. [Re: District Rule 328]*

- **Condition 9.C.1 (External Combustion)**

- *(b)(iii)(2)(a) Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit. POPCO shall use the most recent heating value analysis in conjunction with the fuel gas meter reading to calculate the heat input to each boiler.*
- *(b)(iv)(1) TGU Tailgas to Boilers B-801A/B: 5.620 MMBtu/hr; 135 MMBtu/day; 12,308 MMBtu/quarter; 49,231 MMBtu/year Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit. POPCO shall use the most recent heating value analysis in conjunction with the TGU tailgas meter readings to calculate the heat input to the boilers.*
- *(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. In addition, POPCO shall:*
  - *(i) Utility Boiler Fuel Meters – The amount of fuel gas combusted in each Utility Boiler shall be measured using a permanently installed District-approved in-line fuel meter. POPCO shall obtain written District approval prior to implementing any changes to the meter configuration.*
  - *(ii) TGU Tailgas Meters – The volume of TGU tailgas directed to each Utility Boiler shall be metered using District-approved meters.*
  - *(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.*

- (vi) *Sales (PUC Quality) Fuel Gas Data – POPCO shall continuously monitor the hydrogen sulfide content (as H<sub>2</sub>S) of the sales (PUC Quality) fuel gas used in the TEG Reboilers and Forced Air Furnace using one District-approved monitor. This monitor shall adhere to the District's CEMS Protocol document and District Rule 328 requirements regarding CEMS. On a quarterly basis, POPCO shall take gas samples for third party lab analyses for: hydrogen sulfide content, total reduced sulfur compounds and the higher heating value (HHV). The District may require more frequent lab analyses upon request. POPCO shall utilize the District-approved Fuel Gas Sulfur and HHV Reporting Plan.*
- (vii) *TGU Tailgas Data – POPCO shall monitor the higher heating value of the TGU tailgas combusted in the Utility Boilers by taking quarterly gas samples for third party lab analyses for the higher heating value (HHV). The District may require more frequent lab analyses upon request. POPCO shall utilize the District-approved Fuel Gas Sulfur and HHV Reporting Plan.*
- (viii) *Steam Injection – POPCO shall monitor the steam delivery pressure to Utility Boilers B-801A and B-801B burner steam injection wand using a dedicated pressure gage.*
- (d) *Recordkeeping: The Utility Boilers listed in this section are subject to the recordkeeping requirements listed in Table 4.10 and Rule 342.I. POPCO shall record the emission and process parameters listed in Table 4.10. In addition, POPCO shall:*
  - (i) *Utility Boiler Fuel Gas Use - The total amount of boiler fuel gas combusted in each Utility Boiler shall be recorded on a daily, quarterly and annual basis in units of standard cubic feet. Heat input to each boiler from plant fuel gas on a daily, quarterly, and annual basis shall be calculated after each gas HHV analysis in a million BTUs (x.xxx) format.*
  - (ii) *TGU Tailgas Input - The total amount of TGU tailgas combusted in each Utility Boiler shall be recorded on a daily, quarterly and annual basis in units of standard cubic feet. The heat input to each boiler from TGU tailgas on a daily, quarterly, and annual basis shall be calculated after each gas HHV analysis in a million BTUs (x.xxx) format.*
  - (iii) *Boiler Fuel Gas Data - A logbook or electronic file shall be maintained that records the weekly sorbent tube readings and the quarterly lab analysis results. The logbook or electronic file shall also store as backup documentation, a photocopy picture of each sorbent tube and the laboratory reports, including chain of custody forms.*
  - (iv) *Sales (PUC Quality) Fuel Gas Data - A logbook or electronic file shall be maintained that records the highest weekly H<sub>2</sub>S analyzer readings and the quarterly lab analysis results. The logbook shall also store as backup documentation, a copy of the analyzer data and the laboratory reports, including chain of custody forms.*

- (v) *TGU Tailgas Data – A logbook or electronic file shall be maintained that records the quarterly lab analysis results. The logbook shall also store as backup documentation, a copy of the laboratory reports, including chain of custody forms.*
  - (vi) *Steam Injection - A logbook or electronic file shall be maintained that records all instances of steam gas pressure exceeding 10 psig.*
  - (vii) *Maintenance and Calibration Logs – A logbook or electronic file shall be kept that documents all maintenance and calibration performed for the boilers, emission control systems, fuel flow meters and other associated monitoring equipment.*
  - (viii) *H2S Monitors – POPCO shall maintain records as required by District Rule 328 for the sales gas CEMS analyzer according to the District-approved CEMS Plan for the POPCO facility and Table 4.12.*
- **Condition 9.C.2 (Thermal Oxidizer)**
    - (c) *Monitoring: The equipment in this section is subject to all the monitoring requirements listed in Table 4.11 and District Rule 359.G. The test methods In Rule 359.E. shall be used. POPCO shall monitor the emission and process parameters listed in Table 4.11 for the life of the project. In addition, the following monitoring requirements apply to the flare relief system:*
      - (ii) *Purge/Pilot Gas - POPCO shall monitor the total sulfur and hydrogen sulfide content of the sales gas used in the thermal oxidizer as purge and pilot gas by (a) on an in-line continuous hydrogen sulfide analyzer for the POPCO sales, 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 analyzer shall be adjusted upward to take into account the average 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. (conditionally approved 10/29/98).*
      - (iii) *Pilot Gas Flow Meter - POPCO shall continuously monitor the combined pilot gas flow to the thermal oxidizer using a District-approved meter.*
      - (iv) *Hydrocarbon and Acid Gas Meters – POPCO shall continuously monitor the flare gas volumes in the hydrocarbon and acid gas flare headers using the District-approved Flare Volume Metering System meters (Re: ATC 9487). The Thermal Oxidizer Pilot Fuel Gas metering system output and all the Hydrocarbon and Acid Gas flow metering system outputs will be tied into the facility's Distributed Control System (DCS) control/monitoring system. The DCS will be capable of tracking instantaneous flows, as well as recording cumulative flows measured by the above-specified meters. Six-minute average instantaneous flow rates (in units of scfh) and one-hour average flow rates shall be telemetered to the District's DAS.*
      - (v) *Meter Calibrations – The four (4) Flare Volume Meters and the Thermal Oxidizer Pilot Fuel Gas Meter shall be calibrated and maintained in*

*accordance with the meter manufacturer's procedures and frequency. All meters shall be calibrated at least once every six-calendar months, not to exceed seven calendar months between calibrations.*

- (vi) *Compressor Seal Meters – POPCO shall operate the District-approved gas flow meters for measuring compressor seal leakage flow rates.*
  - (vii) *Purge Gas Flow Meters – POPCO shall operate the District-approved flow indicator meters for measuring all purge gas flow to the hydrocarbon and acid gas flare headers.*
  - (x) *Flaring Sulfur Content Correction – During non-flaring events, POPCO shall sample, on a weekly basis, the hydrocarbon and acid gas flare headers to determine the hydrogen sulfide content using sorbent tubes. On an annual basis, gas samples shall be obtained from each flare header for third party lab analyses of hydrogen sulfide and total reduced sulfur compounds. To correct for the total sulfur content, POPCO shall add the prior year's non-hydrogen sulfide reduced sulfur compounds analysis result to the sorbent tube readings. This data shall be used to determine SOx emissions associated with non-event flaring. POPCO shall perform additional testing of the sulfur content and hydrogen sulfide content, using approved test methods, as requested by the District.*
- (d) *Recordkeeping: The equipment listed in this section is subject to all the recordkeeping requirements listed in Table 4.11 and Rule 359.H. POPCO shall record the emission and process parameters listed in Table 4.11. In addition, the following recordkeeping conditions apply to the thermal oxidizer:*
- (i) *Flare Event Logs - All flaring events shall be recorded in a log. The log shall include: date; duration of flaring events (including start and stop times); quantity of gas flared; total sulfur content; hydrogen sulfide content; high heating value; reason for each flaring event, including the processing unit or equipment type involved; the total heat input (MMBtu) per event; the type of event as defined by District P&P 6100.004 (e.g., Planned - Continuous, – Planned – Frequent, Planned – Infrequent, etc.); and, the District Breakdown and/or Variance number for each Unplanned Flaring event. The volumes of gas combusted and resulting mass emissions of all criteria pollutants for each type of event shall also be summarized for a cumulative summary for each day, quarter and year.*
  - (ii) *Pilot Gas Volumes/Mass Emissions - The total volume of pilot fuel gas and resulting mass emissions of all criteria pollutants combusted in the thermal oxidizer shall be recorded on a daily, weekly, quarterly and annual basis. POPCO may petition the District to eliminate the requirement for daily recordkeeping. The petition shall include all daily records from the prior year and POPCO's analyses showing that weekly records provide an equivalent method of determining compliance with the daily volume limits. Upon approval of the petition by the District, the weekly data shall be used to record and report daily gas volumes and emissions.*
  - (iii) *Purge Gas Volumes/Mass Emissions - The volume of purge fuel gas and resulting mass emissions of all criteria pollutants combusted in the thermal*

*oxidizer shall be recorded on a weekly, quarterly and annual basis. POPCO may petition the District to revise the recordkeeping frequency. The petition shall include all weekly records from the prior year and POPCO's analyses showing that monthly records provide an equivalent method of determining compliance with the daily volume limits. Upon approval of the petition by the District, the monthly data shall be used to record and report daily gas volumes and emissions.*

- (iv) *Compressor Seal Leakage Gas Volumes/Mass Emissions - The volume of compressor seal leakage and resulting mass emissions of all criteria pollutants combusted in the thermal oxidizer shall be recorded on a weekly, quarterly and annual basis. POPCO may petition the District to eliminate the requirement for weekly recordkeeping. The petition shall include all weekly records from the prior year and POPCO's analyses showing that monthly records provide an equivalent method of determining compliance with the daily volume limits. Upon approval of the petition by the District, the monthly data shall be used to record and report daily gas volumes and emissions.*
  - (v) *Baseline System Leakage Gas Volumes/Mass Emissions - The volume of baseline system leakage 1 gas in both the hydrocarbon and acid gas headers and resulting mass emissions of all criteria pollutants combusted in the thermal oxidizer shall be recorded on a daily, quarterly and annual basis. POPCO shall use District-approved methods to measure and calculate the baseline system leakage in each flare header. The basis for each baseline system leakage volume calculation shall be clearly documented.*
  - (vi) *Hydrocarbon and Acid Gas Meters (Telemetered Data) – POPCO shall telemeter both 6-minute average instantaneous and clock-hour average instantaneous flow rates (in units of scfh) to the District's DAS.*
  - (vii) *Maintenance and Calibration Logs – Maintenance and calibration logs of all the Flare Volume Metering system meters and Thermal Oxidizer Pilot Fuel Gas Metering system meters shall be kept on site by the permittee and made available for District inspection upon request.*
  - (viii) *Rule 359 Planned Monthly Volumes – POPCO shall record in a log the total planned flaring volumes for each month.*
- **Condition 9.C.3 (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, POPCO shall meet the following requirements:*
      - (i) *VRS Use - The vapor recovery and gas collection (VR & GC) systems at the POPCO Gas Plant 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 (Sulfur Recovery Unit/Stretford Tailgas Unit)**
  - *(b) Operational Limits: All process operations from the equipment listed in this section shall meet the requirements of District Rule 311.A.2, the BACT requirements listed in Tables 4.5 and 4.6, and the requirements of NSPS Subpart LLL. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition, POPCO shall:*
    - *(ii) Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit. POPCO shall use the most recent heating value analysis in conjunction with the TGU tailgas meter readings to calculate the heat input to the boilers.*
    - *(v) Minimum Boiler Incineration Temperature – The average daily temperature of the gas leaving the boiler’s combustion zone when tailgas is being incinerated shall be at or above 919 °F at all times. Compliance shall be based on at least 96 evenly spaced measurements of the combustion zone temperature over each 24 hour period and telemetry of that data to the District’s DAS.*
  - *(d) Recordkeeping: POPCO shall record the emission and process parameters listed in Tables 4.9 through 4.12. In addition, POPCO shall maintain the following:*
    - *(i) Sulfur Recovery Unit/Stretford Tailgas Unit Report - On a daily basis through the DAS:*
      - *Inlet sour gas volume treated;*
      - *The maximum H2S concentration in sour gas inlet to the plant; and through written records;*
      - *Amount of H2S processed (LTD) through SRU;*
      - *The percent H2S reduction across the SRU;*
      - *The percent total sulfur reduction across the SRU;*
      - *The maximum H2S mass flow rate (lb/hr) in the Stretford tailgas;*
      - *The maximum Stretford tailgas H2S concentration;*
      - *The amount of sulfur production (LTD) (both Stretford and molten elemental sulfur production).*
      - *The maximum peak SO2 emission rate (lb/hr) from the combined Process Boiler stacks;*
      - *The total SO2 emissions (in lb/day) from the combined Process Boiler stacks.*
- **Condition 9.C.8 (Process Monitoring Systems- Operation and Maintenance)**
  - *Facility Throughput Limitations. The POPCO gas processing facility shall be limited to the following processing limits:*
    - *(f) POPCO shall track in a log, on a daily basis, the actual usage data of the parameters limited by this condition (using a District-approved format). [Re: ATC 9047, ATC 9047-2, ATC 9047-5, PTO 8092]*
- **Condition 9.C.10 (Compliance Verification Reports)**
  - *Twice a year, POPCO 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. POPCO 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 POPCO 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:*

- (a) *External Combustion.*
  - *The Boiler Fuel Gas Usage: For each utility boiler, the daily, quarterly and annual fuel use in units of million Btu and standard cubic feet. In addition, the five highest hourly heat input rates per month in units of million Btu/hr for each utility boiler.*
  - *TGU Tailgas Usage: For each utility boiler, the daily, quarterly and annual amount of TGU tailgas combusted in the boiler in units of million Btu and standard cubic feet. In addition, the five highest hourly heat input rates per month in units of million Btu/hr.*
  - *Boiler Fuel Gas Data: Results of the weekly sorbent tube readings of H<sub>2</sub>S and the quarterly analyses of H<sub>2</sub>S, total sulfur compounds and high heating value. Include copies of the quarterly lab analyses.*
  - *Sales Fuel Gas Data: Results of the highest weekly reading observed from the H<sub>2</sub>S analyzers and the quarterly analyses of H<sub>2</sub>S, total sulfur compounds and high heating value. Include copies of the quarterly lab analyses.*
  - *TGU Tailgas Data: Results of the quarterly analyses of high heating value. Include copies of the quarterly lab analyses.*
  - *Source Testing: Summary results of all compliance emission source testing performed including information required by District Rule 342.J and Table 4.10.*
  
- (b) *Thermal Oxidizer.*
  - *Volumes/Mass Emissions: The volumes of gas combusted and resultant mass emissions for each flare category (i.e., Purge; Pilot; Continuous – HC/AG Header Baseline System Leakage; Continuous – AG Header Compressor Seal Leakage; Planned Other; and, Unplanned Other) shall be presented as a cumulative summary for each day, quarter and year. The report shall clearly indicate the basis for each data point presented, including supporting data for the baseline system leakage calculations.*
  - *Volumes/Mass Emissions - Unplanned: The volumes of gas combusted and resultant mass emissions for each Unplanned Other flaring event. Include: the date, start time, duration, volume, H<sub>2</sub>S and total sulfur content, HHV, specific reason/cause for flaring and the District Rule 505 breakdown number and/or Variance Order number. The report shall clearly indicate the basis for each data point presented.*

- *The highest total sulfur content and hydrogen sulfide content observed each week in the HC header, Acid Gas header, Sale Gas line and Boiler Fuel Gas line.*
  - *A copy of Flare Event Log for the reporting period. Include a separate listing of all planned infrequent events that occurred more than four times per year from the same cause from the same processing unit or equipment type.*
  - *Monthly Volumes Flared: A summary of the total amount of gas flared at the facility for each month for all planned flaring (event and non-events).*
  - *Any other information required by District Rule 359.H.*
- (d) *Pigging. The number of pigging events per quarter and per year along with a copy of the pigging log.*
- (g) *Sulfur Recovery Unit/Stretford Tailgas Unit.*
- (1) *Sulfur Recovery Unit/Stretford Tailgas Unit Report (on a daily basis Through the DAS):*
    - (i) *inlet sour gas volume treated;*
    - (ii) *amount of H<sub>2</sub>S processed (LTD) through SRU;*
    - (iii) *the maximum H<sub>2</sub>S concentration in sour gas inlet to the plant; and through written records;*
    - (iv) *the amount of sulfur production (LTD) (both Stretford and molten elemental sulfur production);*
    - (v) *the percent H<sub>2</sub>S reduction across the SRU;*
    - (vi) *the maximum H<sub>2</sub>S mass flow rate (lb/hr) in the Stretford tailgas;*
    - (vii) *the maximum Stretford tailgas H<sub>2</sub>S concentration;*
    - (viii) *the percent total sulfur reduction across the SRU;*
    - (ix) *the maximum peak SO<sub>2</sub> emission rate (lb/hr) from the combined Utility Boiler stacks; and*
    - (x) *the total SO<sub>2</sub> emissions (in lb/month) from the combined Utility Boiler stacks.*
  - (2) *SRU shutdown report (for any unplanned shutdowns include the date, shutdown time start, cause for shutdown, and estimated SRU acid gas volumes sent to the flare).*
  - (3) *Any other information required by NSPS Subpart LLL.*
- (j) *Facility Throughput Data.*
- (1) *The inlet rate of sour gas to the gas plant per day in units of million standard cubic feet.*
  - (2) *The highest recorded hydrogen sulfide content (ppmv) of the inlet sour gas on a daily basis.*
  - (3) *The annual average value of inlet sour gas to the gas plant in units of million standard cubic feet.*
  - (4) *The amount of sour gas transported in the offshore-to-onshore sour gas pipeline on a daily basis in units of million standard cubic feet.*
- (k) *General Reporting Requirements.*
- (5) *Information as required by the District-approved Fuel Gas and HHV Reporting Plan.*

- (6) *Process stream analyses report (for Section 4.12.2 requirements).*
- (7) *Maintenance and Calibration: Summary of all maintenance and calibration activities/logs performed on the utility boilers, thermal oxidizer, emission control systems, process meters, H2S analyzers and CEMS.*
- (8) *The monthly summary of the total volume (e.g., gallons) of NGL transferred from POPCO to the ExxonMobil facility shall be recorded and reported to the District.*
- **Condition 9.C.14 (Central Data Acquisition System)**
  - *This system shall receive and analyze continuous emissions data from POPCO CEMs (as specified in Condition C.12), and odor monitoring (as specified in Condition C.16) and any other data necessary to evaluate observed and potential air quality impacts either site-specific or regional. [Re: ATC 9047, PTO 8092, PTO 9215, ATC 9047-3]*
- **Condition 9.C.17 (Offsets and Consistency with the Clean Air Plan)**
  - *POPCO shall comply with all the procedures and requirements specified in Section 7 of this document including all requirements for offsets, source testing and reporting (if applicable). POPCO shall provide the following offsets:*
    - (a) *POPCO shall offset the net emission increase (NEI) resulting from operation of the Las Flores Canyon facility as detailed in Section 7 and Tables 7.1, 7.2, 7.3 and 7.4.*
    - (b) *If offsets are not in place as required by this permit, POPCO shall provide replacement offsets and shall obtain variance relief. [Re: ATC 9047-4]*
- **Condition 9.C.19 (Process Stream Sampling and Analysis)**
  - *POPCO shall sample and analyze the process streams listed in Section 4.12.2 of this permit consistent with the requirements of that section. All process stream samples shall be taken according to District-approved ASTM methods/procedures and must be follow traceable chain of custody procedures. POPCO shall maintain logs and records documenting the results from all process stream analyses (in a format approved by the District). [Re: ATC 9047]*
- **Condition 9.C.25 (Wastewater Tank)**
  - *The following equipment is included in this emissions unit category:*
    - (b) *Operational Limits:*
      - (i) *Wastewater tank T-601 shall be equipped with two Calgon VENTSORB canisters in series, each containing 180 lb of Calgon AP4-60 activated carbon, Calgon Centaur LAD activated carbon, or APCD-approved equivalent to reduce the ROC emissions from the tank by at least 90% by weight. Compliance with this limit shall be assessed through the source testing condition in this permit.*
      - (ii) *The tank cover and carbon canister system shall be leak-free, properly installed, and properly maintained.*
      - (iii) *The hydrogen sulfide concentration in the exhaust to the atmosphere shall not exceed 13 ppmv.*
      - (iv) *The carbon in the upstream canister shall be replaced: (a) within one week of indications the carbon is not performing as designed, (b) within one week of monitoring if the ROC concentration in the exhaust of the upstream canister is greater than 200 ppmv as methane or*

*greater than the range of the FID, or (c) within one year of the last carbon replacement, whichever is sooner. The carbon in the downstream canister shall be replaced: (a) within 24 hours of indications the carbon is not performing as designed, (b) within 24 hours of monitoring if the ROC concentration in the exhaust of the downstream canister is greater than 200 ppmv as methane or greater than the range of the FID, or (c) within one year of the last carbon replacement, whichever is sooner.*

- (v) *If the upstream canister must be replaced, it may be replaced with the downstream canister. The carbon in the downstream canister shall be as new as, or newer than, the carbon in the upstream canister at all times.*

▪ (c) *Monitoring:*

- (i) *ExxonMobil shall monitor the exhaust of each carbon canister serving wastewater tank T-601 once per week in accordance with EPA Method 21, or other APCD approved methods. ExxonMobil shall take one reading at the exhaust of each carbon canister for THC and one reading for methane. If using an FID and charcoal filter, ExxonMobil shall replace the charcoal filter on the FID prior to each methane reading. The ROC concentration at the exhaust of each carbon canister shall be reported as the difference between the THC and methane concentrations. THC or methane concentrations beyond the measurable range of the instrument shall be assumed to be greater than 200 ppmv as methane.*
- (ii) *ExxonMobil shall monitor the exhaust of the final carbon canister once per week for hydrogen sulfide using Draeger tubes or by taking a tedlar grab bag sample per EPA Method 18 and analyzing it within 24 hours of sample collection using GC-FPD or other APCD-approved analysis method. If the Draeger tube reading indicates a hydrogen sulfide concentration greater than 10 ppmv, a tedlar grab bag sample shall be taken per EPA Method 18 and analyzed within 24 hours of sample collection using GC-FPD or other APCD-approved analysis method.*

• **Condition 9.C.27 (Natural Gas Liquids)**

- (a) *NGL Loading Rack – The NGL loading rack shall be equipped with a vapor return system. Such vapor return system shall be capable of returning all vapors generated during loading to the NGL storage tanks. In the event of a malfunction in the vapor return system, all vapors shall be sent to the emergency flare where they will be combusted before release to the atmosphere. Such malfunctions shall be reported to the District as a breakdown pursuant to District Rule 505 or variance relief shall be obtained.*
- (b) *NGL Flowline – POPCO shall transport NGLs from its gas plant to Exxon's Stripping Gas Treating plant via the NGL flowline in accordance with the requirements of Condition P-14 of the Santa Barbara County Final Development Plan 93-DP-015. A monthly summary of the total volume (e.g., gallons) of NGL transferred from POPCO to the ExxonMobil facility shall be recorded and reported to the District.*

- **Condition 9.C.28 (PDS/TDS/SDS/Pig Receiver Educator Vapor Recovery System)**
  - *The PDS/TDS/SDS educator system shall be equipped with a high-pressure alarm set to alarm at 5.5 psig. Any high-pressure alarm indicated by this sensor shall be recorded by the plant Distributed Control System (DCS), and be reported to the District.*
    - *(a) Lean-Sulfinol shall continually flow through educator J-203 at all times when POPCO is processing sour gas and the PDS is operational. This shall be evidenced by the upstream and downstream lean-Sulfinol valves being configured to the open positions during the conditions described above.*
    - *(b) Maintenance logs of the educator and pressure controller systems shall be kept on site by the permittee and made available for District inspection upon request. This permit requires no other recordkeeping, if the Operational Limitations of this permit are adhered to by the permittee at all times. [Re: ATC/PTO 9471, ATC 9471-1]*
  
- **Condition 9.C.36 (Visible Emissions - Rule 302)**
  - *(b) Boilers (B-801A & B-801B): No visible emissions shall occur from Boiler B-801A or B-801B. Once per calendar quarter, ExxonMobil shall perform a visible emissions inspection for a one-minute period from each boiler. The start-time and end-time of each visible emissions inspection shall be recorded in a log, along with a notation identifying whether visible emissions were detected. All records shall be maintained consistent with the recordkeeping condition of this permit.*
  
- **Condition 9.D.3 (External Combustion)**
  - *The following equipment is included in this emissions unit category:*
    - *(c) Monitoring: The volume of natural gas (in units of standard cubic feet) used by Sulfinol TEG Reboiler E-251 shall be reported as permitted annual heat input limit for the unit (Btu/year) divided by the District-approved heating value of the fuel (Btu/scf).*
  
- **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 325 (Crude Oil Production and Separation)**
  - *This rule applies to equipment used in the production, gathering, storage, processing, and separation of crude oil and natural gas prior to custody transfer.*
  
- **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 331 (Fugitive Emissions Inspection and Maintenance)**
  - *This Rule shall apply to components in liquid or gaseous hydrocarbon service at refineries, chemical plants, oil and gas production fields, oil and gas processing plants, and pipeline transfer stations.*

- **Rule 342 (Control of Oxides of Nitrogen (NO<sub>x</sub>) 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 2016-32-R

  
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Mike McKay, Inspector  
Compliance Division

10/18/16  
\_\_\_\_\_  
Date