



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2015-37-M2

DATE: December 06, 2017

1.0 **GENERAL INFORMATION:**

- 1.1 **PETITIONER NAME:** Freeport McMoRan Oil & Gas (FMOG)
- 1.2 **EQUIPMENT LOCATION:** Petitioner operates the equipment described in the Petition at the Gaviota Oil & Heating Facility (GOHF), located at 17100 Calle Mariposa Reina, Gaviota, CA
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 5704
- 1.4 **FACILITY NAME/ID:** Gaviota Oil Heating Facility, FID 01325
- 1.5 **FACILITY DESCRIPTION:** Gaviota Oil Heating Facility is part of *The Point Arguello Project* stationary source (SSID # 01325). *The Point Arguello Project* stationary source consists of four facilities: Platform Harvest (FID 08013), Platform Hermosa (FID 08014), Platform Hidalgo (FID 08015), and Gaviota Oil Heating Facility (FID 01325). Freeport McMoRan Oil and Gas, LLC operates the facility.

- 2.0 **REASON FOR THE VARIANCE REQUEST:** As a result of the Plains All American Pipeline (AAPL) failure on May 19, 2015, Freeport McMoRan Oil & Gas has experienced facility impacts. Due to the uncertainty of when the AAPL will re-establish pipeline operations, the facility is in a standby and suspended status. FMOG has both onshore and offshore facilities that have temporarily ceased operations. At this time, it is unclear when the restart of the facility may occur.

Per Health and Safety Code §42357, the Petitioner is requesting a modification of final compliance date of Regular Variance 2015-37-M1, to extend variance coverage during the extended shutdown.

- 3.0 **BACKGROUND:** An application was submitted on November 14, 2017 by Freeport McMoRan Oil & Gas to consider a modification of final compliance date of Regular Variance 2015-37-M1. If granted, 2015-37-M2 would extend variance coverage from the previously approved variance order. Enforcement relief would be granted from December 02, 2017 through December 01, 2019, or the date the facility resumes oil and gas processing, whichever occurs first.
- 4.0 **PERMITTING HISTORY:** Since the original permitting of Gaviota Oil Heating Facility, PTO 5704 has been re-evaluated numerous times, with the most recent being in July of 2014. The Gaviota Oil Heating Facility is part of *The Point Arguello Project* stationary source and operates under a combined local and federal operating permit. See <https://www.ourair.org/lompoc-oil-field/> for details.
- 5.0 **COMPLIANCE HISTORY:** Historically, the permit conditions listed in section 6.0 have not been violated.

6.0 REGULATORY ANALYSIS: The following permit conditions of Part 70/Permit to Operate 5704 and rule requirements are applicable to the variance request:

- **Condition 9.B.2 (Rule 302 – Visible Emissions)**

- *FM O&G shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:*
 - *As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or*
 - *Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2(a) above.*

- **Condition 9.C.1 (Combustion Equipment – Turbines/HRSG/SCR)**

- *(b) Operational Limits: The following operational limits apply:*
 - *(i) BACT controls for the cogeneration plant are defined as simultaneous injection of water and ammonia with SCR. FM O&G shall maintain, except during "start up and shut down" periods, a minimum water-to-turbine fuel ratio of 0.8:1 on a weight basis when operating in excess of 875 kW and an ammonia-to-SCR inlet NOx ratio of 1.3:1.0±10 percent on a molar basis. Upon written approval by the District, FM O&G may elect to use a different water injection or ammonia ratio once it has been demonstrated to the satisfaction of the District to result in an equivalent or lower NOx emission rate than the ratios specified above. The compliance averaging times for water and ammonia injection shall be two consecutive 6-minute averages, i.e., two consecutive 6-minute data points outside the ratio limits for water or ammonia will constitute a violation.*
 - *(ii) FM O&G may operate a maximum of three (3) turbines, two (2) heat recovery steam generators (HRSG) and one (1) SCR duct burner simultaneously. Two turbines and three heat recovery steam generators shall remain out of service at all times consistent with permit condition 9.C.25. (Out of Service Equipment) FM O&G shall provide the District a 12-hour notice prior to the startup of a fourth unit and shutdown of an active unit and identify the unit to be activated. Alternatively, the hourly fuel use for each turbine shall be provided for any day in which four or more units operated. During the startup of an idle unit, which exceeds the maximum number of units allowed to operate, and shutdown of an active unit, simultaneous operation shall not occur. Simultaneous operation of more than three turbines or two HRSGs shall require an Authority to Construct to modify this permit consistent with the rules in effect at the time the application is deemed complete. Emission offsets shall be provided for the increased emissions resulting from simultaneous operation of these units.*
 - *(iii) Heat input (based on HHV) shall not exceed 48.40 MMBtu/hr for each turbine, 54.78 MMBtu/hr for each heat recovery steam generator and 49.50 MMBtu/hr for the SCR duct burner. Heating value records for any calendar day shall be made available for the District's inspection upon request. The total heat input for the turbines shall not exceed 145.2 MMBtu during any single hour. The total heat input for the turbine heat recovery steam generators shall not exceed 109.56 MMBtu during any single hour. For purposes of compliance determination, the higher heating value shall be assumed to be 1100 Btu/scf. Heat input units are based on standard conditions.*

- *(iv) The damper on each turbine diverter valve shall remain in a fully closed position during turbine operation, except during start-up and shutdown of the respective turbine and during annual SCR cleaning and regulatory inspections in which regulatory personnel are onsite for an inspection requiring opening of the diverter valve. For safety reasons, diverter valves shall be open to the atmosphere when the turbine is not in service. Only one turbine may be started and one diverter valve may be open at any one time.*
- *(v) Each diesel-fired turbine starter IC engine shall be operated for no more than 60 minutes per day, 10 hours per calendar quarter or 10 hours per calendar year. Notwithstanding the above, the total combined operation of all turbine starters may not exceed 2 hours per day.*
- *(vi) The waste heat boiler auxiliary burner shall not be operating during start-up or shutdown of the respective turbine. In no case shall any diverter valve remain open and the respective turbine operating for greater than 30 minutes per start-up or shutdown. Annual SCR cleaning shall be permitted for one continuous 48-hour period per calendar year. For regulatory inspections described in 9.C.1(b)(iv) above, a diverter valve may remain open as long as necessary to complete the inspection. FM O&G shall inform the District, in writing, 8 hours prior to the commencement of this activity and within 24 hours of completion.*
- *(vii) Cogeneration Stack Flow Measurement Device. For a one turbine operating case, if source tested stack flow rate is found to be beyond the fifteen percent required relative accuracy, FM O&G shall use a default value of 32,000 dscfm for determining stack flow rate at all loads.*
- *(viii) The sulfur content of the fuel gas burned in the turbines shall not exceed 10 ppmv total sulfur calculated as hydrogen sulfide (at standard conditions). The sulfur content of fuel gas burned in the auxiliary SCR heater and HRSG burners shall not exceed 4 ppmv total sulfur calculated as hydrogen sulfide (at standard conditions).*
- **Condition 9.C.13 (Odor Monitoring Plan)**
 - *FM O&G shall implement the most recently issued District-approved Odor Monitoring Plan, This Plan is hereby incorporated by reference into this permit.*
- **Condition 9.C.15 (Source Testing)**
 - *(a) The permittee shall conduct source testing of air emissions and process parameters listed in Table 4.4. 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 on an annual schedule, or biennial/ triennial, as applicable, using May/June as the anniversary date.*
- **Condition 9.C.21 (Continuous Emission Monitoring)**
 - *FM O&G shall notify the District fourteen (14) days in advance of the proposed date of any shutdown equipment to be returned to service. All associated CEMs shall be operational prior to the startup of this equipment. Prior to the startup of this equipment a cylinder gas audit (CGA) shall be conducted on all concentration analyzers and a relative accuracy audit (RAA) shall be performed on all exhaust flow measurement devices within three weeks after startup of this equipment. If the equipment has been out of service for more than nine (9) months a relative accuracy test audit (RATA) shall also*

be performed within one month. These audits shall be consistent with the 40 CFR Appendix F and the District approved CEM Plan.

- **Condition 9.C.26 (Documents Incorporated by Reference)**

- *FM O&G shall implement, and operate in accordance with, each of the plans listed below. The documents listed below, including any District-approved updates thereof, are incorporated herein and shall the full force and effect of a permit condition of this operating permit.*
 - *(n) Process Monitor Calibration and Maintenance Plan (revised and approved March 21, 2001)*

- **Condition 9.D.4 (Process Stream Sampling and Analysis)**

- *FM O&G shall sample and analyze the process streams listed in section 4.10. All process stream samples, except for TVP measurements, shall be taken according to District-approved ASTM methods and must be follow traceable chain of custody procedures. TVP samples shall be analyzed consistent with the requirements of Rule 325. FM O&G shall maintain logs and records documenting the results from all process stream analyses in a format approved by the District.*

- **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.*

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

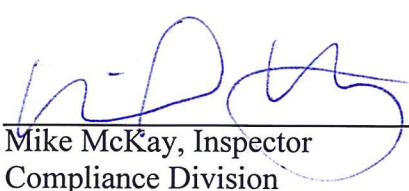
8.0 **RESERVED**

9.0 **OTHER FACTORS:** none

10.0 **DISTRICT RECOMMENDATION:** The APCD supports the Petitioner's request and recommends the granting of a modification of final compliance date for Regular Variance 2015-37-M1 for Freeport McMoRan as listed in the attached draft variance order.

11.0 **ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 2015-37-M2


Mike McKay, Inspector
Compliance Division

11/22/17
Date