



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2015-38-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 on offshore lease tract OCS-P-0316
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 9104
- 1.4 **FACILITY NAME/ID:** Platform Hermosa, FID 08014
- 1.5 **FACILITY DESCRIPTION:** Platform Hermosa 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 platform is in a production shutdown mode. 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 2015-38-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 2015-38-M1. If granted, 2015-38-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 production, whichever occurs first.
- 4.0 **PERMITTING HISTORY:** Since the original permitting of Platform Hermosa, PTO 9104 has been re-evaluated numerous times, with the most recent being in July of 2014. Platform Hermosa 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 9104 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.2 (Turbines)**
 - *(c)(iii) Source Testing: FM O&G shall source test turbines G-92, G-93 and G-94 on Platform Hermosa at least once per calendar year, (except as noted below), with water injection at the injection ratio specified above. The NOx water injection ratio shall be determined from current fuel gas densities, as determined from fuel gas samples taken within 14-days immediately prior to testing. If the NOx water controllers are not updated with the new fuel gas densities, the W/F setpoint shall be set such that the actual W/F ratio is as specified above. Turbines may be tested at as-found loads, unless otherwise requested by the District. Any turbine operated on fuel gas less than 877 hours in the previous calendar year, or as otherwise approved by the District, may be exempted from source testing requirements. The minimum time period between annual tests shall be 3-months.*

- **Condition 9.C.3 (Combustion Equipment - Flare)**
 - *(a) Emission Limits: Flaring emissions from the purge and pilot, planned continuous, planned intermittent (other) and unplanned events shall not exceed the volumes in Table 5.1-1 and the emission limits in Tables 5.1-3 and 5.1-4.*

 - *(b) Operational Limits:*
 - *(i) Flaring Volumes: Flaring volumes from the purge and pilot, planned continuous, planned (other) and unplanned events shall not exceed the volumes in Table 5.1-1.*

 - *(ii) Planned Flaring Operational Limits: FM O&G shall not combust in the flare, any combination of planned flaring events (as defined by Rule 359), any more than:*
 - *100,000 standard cubic feet in any one-hour period (60-minute sliding scale)*
 - *300,000 standard cubic feet in any three-hour period (180-minute sliding scale)*
 - *500,000 standard cubic feet in any 24-hour period (24-hour sliding scale)*

The above limits do not apply to flare purge and pilot gas volumes.

 - *(iii) Flare Purge/Pilot Fuel Gas Sulfur Limits: The sulfur content of fuel gas combusted as purge and pilot gas shall not exceed 165 ppmv total sulfur calculated as hydrogen sulfide (at standard conditions). The ppmv limit for the purge/pilot gas shall be based on a 15-minute average. Compliance shall be based on in-line continuous monitoring using a hydrogen sulfide analyzer. FM O&G shall obtain District-approval on the analyzer design specifications prior*

to any modification. This analyzer shall be operated consistent with the requirements of the most current version of the District CEM Protocol document (dated October 22, 1992 and subsequent updates), where applicable. FM O&G shall implement the monitoring, calibration, recordkeeping and reporting procedures contained in the most current version of the District-approved Fuel Gas Reporting Plan. FM O&G shall operate the amine based fuel gas sweetening system at all times when combusting fuel gas as purge/pilot fuel.

- (iv) *Fuel Sulfur Content Excursions: For specific events as defined below, the sulfur content of the flare purge/pilot gaseous fuel may be excluded from the 165 ppmv 15-minute average calculation defined above. However, at no time shall the fuel sulfur content exceed 15 grains per 100 cubic feet (239 ppmv). The specific events not subject to the 165 ppmv sulfur limit are:*
 - Platform start-up on gaseous fuel after running on propane.
 - Platform start-up on gaseous fuel after having been shut down.

Each event shall be limited to no more than one (1) hour in duration. The total number of events shall be limited to six (6) per calendar quarter and twelve (12) per calendar year. FM O&G shall record the date, time and duration of each event in a log, along with the peak sulfur content during the excursion. A copy of this log shall be included in the platform's semi-annual report.
- (v) *Flare Planned Continuous Flaring Sulfur Limits: The sulfur content of all gas burned as planned continuous flaring in the flare header shall at no time exceed 10,000 ppmv total sulfur. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit.*
- (vi) *Flare Planned (other) Sulfur Limits: The quarterly average sulfur concentration of produced gas flared as "planned - other" in the flare header shall not exceed 20,000 ppmv total sulfur. This limit shall be enforced on an average quarterly basis (i.e., the average of all sulfur content measurements during the quarter). Maximum quarterly "planned - other" gas flow volumes shall be determined through the use of the following formula:*
 - $$\text{MMscf/quarter} = \{1.205 \text{ TPQ SOx (PTE basis)} \times 2,000\} / (0.169 \times \text{avg. sulfur ppmv})$$

However, at no time shall the gas flow volume exceed 1.43 MMscf/quarter. Furthermore, FM O&G shall not exceed the quarterly (TPQ) "planned - other" flaring mass emission limits of NOx, ROC, CO, SOx, PM, and PM10 as specified in Tables 5.1 through 5.5. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit.
- (vii) *Use of Propane as Fuel Gas: Propane may be used as an auxiliary fuel to the flare purge and pilot fuel gas. The propane shall meet Gas Processors Association specifications for propane (HD-5 grade) and shall have a total sulfur content no greater than 165 ppmv (10 gr/100 scf).*
- (viii) *Rule 359 Technology Based Standards: FM O&G shall comply with the technology based standards of Rule 359.D.2. Compliance shall be based on monitoring and recordkeeping requirements of this permit as well as District inspections.*

- **Condition 9.C.24 (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.*
 - *(h) Process Monitor Calibration and Maintenance Plan (approved December 2002)*
 - *(i) Fuel Gas Sulfur Reporting Plan (approved December 2002)*

- **Rule 359 (Flares and Thermal Oxidizers)**
 - *The provisions of this Rule shall apply to the use of flares and thermal oxidizers at oil and gas production sources (SIC code 13), petroleum refinery and related sources (SIC code 29), natural gas services and transportation sources (SIC code 49) and wholesale trade in petroleum/petroleum products (SIC code 51).*

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

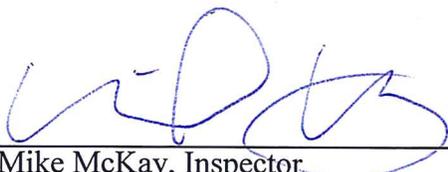
8.0 **RESERVED**

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 2015-38-M1 for Freeport McMoRan as listed in the attached draft variance order.

11.0 **ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 2015-38-M2



Mike McKay, Inspector
Compliance Division

11/22/17

Date