



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2016-10-R

DATE: April 06, 2016

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) Line 901 failure on May 19, 2015, and subsequent shutdown of Line 903, FMOG has experienced facility impacts. Due to these impacts, Hermosa is temporarily ceasing operations. Preservation plans for Hermosa are in progress and the facility is being placed in a standby and suspended status with operating staff reduced to a minimum safe level; at times this may be an un-manned condition. Although it is unclear when the restart of the Petitioners facility may occur, it is anticipated that all of the equipment will eventually be operated again.

- 3.0 **BACKGROUND:** A petition for Variance Order 2016-10-R was submitted on March 10, 2106. If granted, 2016-10-R would grant enforcement relief from March 11, 2016 through March 10, 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:** Since the original permitting of Platform Hermosa, PTO 9104 has been re-evaluated numerous times, with the most recent being in July of 2014.

- 5.0 **COMPLIANCE HISTORY:** The permit conditions listed in 6.0 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 9104-R4 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.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 shutdown.*

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.
- (c) *Monitoring:* The equipment in this section are subject to all the monitoring requirements listed in District Rule 359.G. The test methods In Rule 359.E. shall be used. In addition FM O&G:
 - (i) *Flare Volumes:* The volumes of gas flared during each event shall be monitored by use of District-approved flare header flow meters. The meters shall be calibrated and operated consistent with most recently issued version of the District-approved FM O&G's Process Monitor Calibration and Maintenance Plan.
 - (ii) *Pilot Flame Detection:* FM O&G shall continuously monitor each pilot to ensure that a flame is present at each pilot at all times.
- (d) *Recordkeeping:* The equipment listed in this section is subject to all the recordkeeping requirement listed in Rule 359.H. In addition FM O&G:
 - (i) *Flare Event Logs:* All flaring events shall be recorded in a log. The log shall include: date; duration of flaring events (start and stop times or start and duration times); quantity of gas flared; reason for flaring events; the type of event (e.g., planned or unplanned); and, a qualitative description of the gas flared including estimates of the sulfur content from the most recent measurements.
 - (ii) *Sulfur Content:* A log of the total sulfur content of produced gas combusted during flaring events shall be maintained.

- (iii) *Propane as Flare Fuel Gas: FM O&G shall record in a log each usage of propane in a District-approved format and shall maintain documentation of the sulfur content of each fuel shipment as certified in the fuel supplier's billing vouchers.*
- (e) *Reporting: The equipment listed in this section are subject to all the reporting requirements listed in District Rule 359.H. On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the Compliance Verification Reports condition of this permit. (Re: District Rules 359 and 1303, PTO 9104, ATC/PTO 10330, 40 CFR 70.6)*
- **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)*

7.0 EMISSIONS ANALYSIS: Excess emissions related to the granting of this variance will be from the flaring of well casing gas. Hermosa will likely exceed the quarterly planned flaring limit of 1.43MMscf as well as the quarterly average H₂S concentration for planned flaring. The Petitioner has requested variance relief from these emission limits in order to allow safe preparation for a potential long term shutdown.


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 Freeport McMoRan as listed in the attached draft variance order.

11.0 ATTACHMENTS:

- Attachment 1 – Draft Regular Variance Order 2016-10-R


Mike McKay, Inspector
Compliance Division

03/22/16
Date