



HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2015-36-M1

DATE: December 07, 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-0315
- 1.3 **PERMIT NUMBER(S):** Part 70/Permit to Operate 9103
- 1.4 **FACILITY NAME/ID:** Platform Harvest, FID 08013
- 1.5 **FACILITY DESCRIPTION:** Platform Harvest 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 Petitioner is preserving equipment to manage its integrity. FMOG has both onshore and offshore facilities that have temporarily ceased operations. The AAPL remains shutdown and Plains continues to work with local and federal agencies to understand the nature of the failure and repair options. At this time, it is unclear when the restart of the facility may occur.

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. Upon the facility resuming oil and gas production, the Petitioner will return to compliance with those conditions listed in section 6.0 and the attached draft variance order.

- 3.0 **BACKGROUND:** An application was submitted on November 07, 2016 by Freeport McMoRan Oil & Gas to consider a Modification of Variance and Modification of Final Compliance Date of Regular Variances 2015-36-R and 2016-08-R. If granted, 2015-36-M1 would combine 2015-36-R and 2016-08-R, effectively terminating 2016-08-R upon approval. Enforcement relief would also be granted from December 02, 2016 through December 01, 2017, or the date the facility resumes oil and gas production, whichever occurs first. A Modification of Variance and Modification of Final Compliance Dates set forth in 2015-36-R and 2016-08-R was requested due to the unknown timeline for the AAPL repair.

- 4.0 **PERMITTING HISTORY:** Since the original permitting of Platform Harvest, PTO 9103 has been re-evaluated numerous times, with the most recent being in July of 2014.

5.0 COMPLIANCE HISTORY: The permit conditions listed in section 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 9103 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)**

- *(e)(i) Continuous Monitoring System (CEMS). FM O&G shall install, maintain, and operate a NOx CEMS that continuously monitors the exhaust of all three turbine compressors for the parameters listed in Table 4.3. The monitoring devices shall meet the requirements of 40 CFR 60, and subsequent revisions, and be operated in accordance with manufacturer's specifications. FM O&G shall comply with the District-approved CEMS Plan dated August 15, 2007 (and any subsequent approved updates). CEMS operator log entries, strip charts, magnetic tapes, computer printouts, circular charts or diskettes, whichever is applicable, shall be provided upon request to the District. For each compressor, FM O&G shall maintain an 80% data recovery efficiency (DRE) on a quarterly basis for the CEMS parameters in Table 4.3. For the purposes of determining DRE, an hour period with twelve valid 1-minute NOx lb/hr average data points shall be considered a valid hour except during one hour per day for each exhaust sample train when the required daily calibration occurs.*
- *(e)(ix)(a) Source testing of air emissions and process parameters listed in Table 4.1 shall be conducted annually on all turbines. In addition, quarterly testing of turbine compressors A and B shall be performed if required by condition 9.C.2(e)(ii) of this permit. A relative accuracy test audit (RATA) for the CEM shall be performed in conjunction with the annual source test. During each annual source test, one turbine generator and one turbine compressor shall be tested while operating at maximum load and the remaining turbines will be tested at "historical" based on the prior year's usage. The turbine tested at maximum load for subsequent annual tests will rotate to each turbine with the remaining turbines being tested at "historical" loads.*
- *(e)(ix)(b) The permittee shall submit a written turbine source test plan for the turbine generators and compressors to the District for approval at least thirty (30) days prior to initiation of each source test. The plan shall address the RATA for the NOx and oxygen analyzers for the turbine compressors. The source test plan shall be prepared consistent with the District's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test and RATA plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.*

- *(e)(ix)(c) Source test results and the RATA test results for NOx and O2 monitors shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results and CEM data will be used to document the permittee's compliance status with, mass emission rates in Tables 5.1 and 5.2, ppmv concentration limits and applicable permit conditions, rules and NSPS. All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.*
- **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-approved 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 (other) Sulfur Limits: The quarterly average sulfur concentration of produced gas flared as "planned - other" in the flare header shall not exceed 17,000 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:*
 - $$\text{MMscf/quarter} = (2.338 \text{ TPQ SO}_x \text{ [PTE basis]} \times 2,000) / (0.169 \times \text{avg. sulfur ppm})$$
At no time shall the gas flow volume exceed 2.77 MMscf/quarter. Furthermore, FM O&G shall not exceed the quarterly (TPQ) "planned - other" flaring mass emission limits of NO_x, ROC, CO, SO_x, PM, and PM10 as specified in Tables 5.1 through 5.3. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit.
- *(vi) 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).*
- *(vii) 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.12 (CEM Reporting)**
 - *Semi-annual CEMS reports shall be submitted to the District in conjunction with the required Compliance Verification Reports. Data shall be reported consistent with the approved CEM Plan and (at a minimum) must include the following:*
 - *Data summaries for each parameter as per the District-approved CEM plan*
 - *Monitor downtime summary, including explanation and corrective action*
 - *Quarterly data capture calculations and summary result*
 - *Report on compliance with permit requirements, including any corrective action taken*
 - *A report summarizing the number of times the NO_x ppmv value exceeded 4 ppmv and any lb/hr limit exceedances detected by the CEM, except during startup and shutdown.*
- **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 have 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 328 (Continuous Emission Monitoring)**
 - *The Control Officer shall require the owner or operator of each stationary source (listed in a. through f.) below to install, calibrate, operate and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified.*

- **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:** There will be excess emissions related to the granting of this variance from the flaring of well casing gas. Platform Harvest will likely exceed the quarterly average H₂S concentration for planned flaring, however, the Petitioner does not expect to exceed the quarterly volume or mass emission limits. The Petitioner has requested variance relief from this emission limit in order to allow safe preparation for a potential long term shutdown.

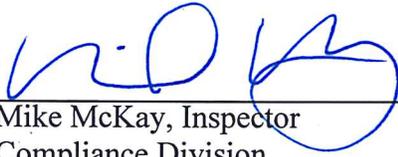
8.0 **RESERVED**

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 2015-36-M1



Mike McKay, Inspector
Compliance Division

11/22/16

Date