



## HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 21-13-R

DATE: October 16, 2013

### 1.0 GENERAL INFORMATION:

- 1.1 PETITIONER NAME: Freeport-McMoRan Oil and Gas (FMO&G)
- 1.2 EQUIPMENT LOCATION: FMO&Gs' Platform Irene is part of the Lompoc/Point Pedernales Stationary Source (SSID = 4632) located on OCS lease tract OCS-P-0441 approximately 4 miles west of Point Pedernales, California
- 1.3 PERMIT NUMBER(S): Part 70/Permit to Operate 9106
- 1.4 FACILITY NAME/ID: Platform Irene, FID 08016
- 1.5 FACILITY DESCRIPTION: Platform Irene is an oil and gas production platform. It was installed in 1985. Platform Irene produces crude oil and sour natural gas that is transported via subsea pipelines to the Lompoc Oil and Gas Plant located approximately three miles north of Lompoc, California. The oil emulsion is shipped via a 20" pipeline and the produced gas is dehydrated and compressed on Platform Irene, and then shipped via an 8" subsea pipeline. The average gravity of the produced oil is 13.5 degrees API. The design platform production is 150,000 barrels of wet oil per day and 12 million standard cubic feet of produced gas per day.

- 2.0 REASON FOR THE VARIANCE REQUEST: Platform Irene is equipped with a flare system to minimize emission of reactive organic compounds (ROC's) that would otherwise be emitted to the atmosphere. Flaring events on Platform Irene are categorized as either "unplanned" or "planned" flaring events. Unplanned flaring events are defined as all flaring that does not meet the definition of Rule 359. Unplanned flaring includes emergency and breakdown events.

There are four common or routine planned flaring scenarios that occur on Platform Irene. All planned events are scrubbed to remove sulfur compounds. Planned flaring events are defined according to the provisions of Rule 359.

- (1) During the start-up of each unit, an automatic cycle is initiated to sweep atmospheric air from the system. This minimizes the possibility of having combustion gas mixtures in the process.
- (2) During the shutdown of equipment, shutdown valves (SDV's) will close and blowdown valves (BDV's) will open automatically to release pressure from the system. This is a requirement of federal regulations.
- (3) During maintenance of equipment, the systems are purged with nitrogen or fuel gas and blowdown to the flare system.
- (4) During normal operations, low pressure flare gas may be released from the low pressure vents.

The Del Mar H<sub>2</sub>S analyzer is required to be used during all planned flaring to record the H<sub>2</sub>S concentration in accordance with the requirements of permit condition 9.C.2.(c)(iv) and the associated *Irene Flare Sulfur Monitoring Plan*. This analyzer failed in June 2013. After multiple repair attempts and vendor evaluation the Petitioner determined that the more than 20 year old unit should be replaced. Operation of the platform without the analyzer was approved under prior variance orders 11-13-I and 12-13-N.

- 3.0 **BACKGROUND**: The Petitioner has been operating under variance order 11-13-I and 12-13-N since July 9, 2013. Variance Order 12-13-N expires on November 5, 2013, prompting the need for continued enforcement relief. The new analyzer was ordered on September 5<sup>th</sup> and scheduled to be installed on November 5<sup>th</sup>. According to the Petitioner, the equipment vendor recently indicated that they would not be able to meet the November 5<sup>th</sup> date. Installation is now scheduled for late November or early December. The Petitioner is requesting enforcement relief through December 31, 2013 to accommodate unforeseen delays.
- 4.0 **PERMITTING HISTORY**: The Del Mar analyzer was installed by Torch in 1985 and incorporated within Part 70 Permit to Operate 9106 on October 17, 2000.
- 5.0 **COMPLIANCE HISTORY**: The Del Mar analyzer has historically operated in compliance with District rules and regulations. This is the first time the unit was in need of replacement.
- 6.0 **REGULATORY ANALYSIS**: PTO 9106, Condition 9.C.2. (c)(iv) requires operation of the Del Mar H<sub>2</sub>S analyzer during all planned flaring events.
- 7.0 **EMISSIONS ANALYSIS**: There are no excess emissions associated with the failure of the Del Mar H<sub>2</sub>S analyzer in that the analyzer is intended to record the H<sub>2</sub>S concentration of all flared gases during the flaring event. In lieu of the analyzer the Petitioner uses colorimetric tubes to determine flare emissions as is currently being done under 90-Day Variance Order 12-13-N.

During the 3<sup>rd</sup> quarter 2013 the Petitioner conducted five planned flaring events on July 20<sup>th</sup>, August 6<sup>th</sup> and 8<sup>th</sup> and September 16<sup>th</sup> and 18<sup>th</sup>. The total flare volume was 33.3 thousand standard cubic feet (mscf). In all these events the colorimeter draeger tubes recorded zero H<sub>2</sub>S. If the standard offset for total reduced sulfur (TRS) constituents as added (1 ppm<sub>v</sub>), the SO<sub>x</sub> emissions would be 0.006 tons.

8.0 **RESERVED**

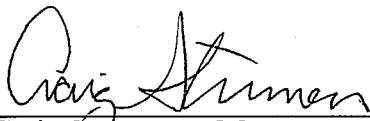
9.0 **OTHER FACTORS**: none

10.0 **DISTRICT RECOMMENDATION**:

The APCD supports Petitioner's request and recommends the granting of a regular variance for Platform Irene listed in the attached draft variance order.

**11.0 ATTACHMENTS:**

- Attachment 1 – Draft Regular Variance Order 21-13-R



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Craig Strommen, Manager  
Compliance Division

10/16/13

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Date