VIA UPS

April 22, 2022

Bay Area Air Quality Management District
ATTN: Mail Stop FM1
375 Beale Street, Suite 600
San Francisco, CA 94105

Subject: February 19, 2022 Reportable Flaring Event Incident Report-Public Version

To Whom It May Concern:

Pursuant to Regulation 12 Rule 12 Section 406, Martinez Refining Company submits the following information regarding a reportable flaring event as defined in Regulation 12-12-208 that occurred on February 19, 2022. The attached report discusses the cause of the flaring event and any prevention measures considered to prevent recurrence of the event.

If you have any questions concerning the enclosed information, please contact Rick Shih at (925) 313-0586 or richard.shih@pbenergy.com.

Sincerely,

Susan Nelson
Manager, HSSE
Martinez Refining Company

Attachment
Regulation 12 Rule 12 Reportable Flaring Event Causal Analysis Report

1. **Report Date:** April 18, 2022

2. **Refinery Name and Site Number:** Martinez Refining Company - BAAQMD Site # A0011

3. **Refinery Contact and Phone Number:** Rick Shih (925) 313-0586

4. **Flare Identification:** LOP flare S-1471

5. **Flaring Event Duration:**
   a. **Date:** February 19, 2022
   b. **Time:** 11:28 AM – 3:27 PM
   c. **Total Duration of Event:** Approximately 3 hours

6. **Brief Description of Flaring Event:** Flaring at LOP flare when a heater, [redacted], tripped off causing flaring that resulted in SO$_2$ emissions greater than 500 pounds in a 24-hour period.

7. **Process Flow Diagram:** see attached process flow diagram

8. **Volume of Gas Flared:** 0.8 MMSCF

9. **Total Emissions due to flaring based on Regulation 12 Rule 11 Methodology:**
   a. 388 lbs of methane
   b. 665 lbs of non-methane hydrocarbons
   c. 7994 lbs of sulfur dioxide

10. **Was the Gas Scrubbed?** The vent gas that went to the flare was not scrubbed.

11. **Primary Cause of Flaring Event including Detailed Description of the Cause and Contributing Factors:**

    The Saturates Gas Plant (SGP) serves to separate heavier hydrocarbon from process gases. On February 19 of 2021, the Hydrocracker Unit (HCU) and SGP were in the process of shutting down. Normally, SGP would use recovered heat from the HCU, but with the HCU also shutting down, heater [redacted] was brought online to generate the necessary heat. However, the fuel flow meter for the heater was plugged resulting in the heater tripping off. Without the heater, light end hydrocarbon was carried over from the rectified adsorber (X-XX), to the debutanizer (X-XX) and finally the gasoline column (X-XX). The light end hydrocarbons in the gasoline column caused the column to reach a pressure that resulted in MRC having to safely depressurize the SGP and send SGP material to the flare. MRC tried to restart [redacted] but was unsuccessful as the plugged flow transmitter would not allow a reset of the system. MRC also tried to divert the light end hydrocarbon in the gasoline column to mitigate the amount of gas being sent to the flare. Once SGP was completely depressurized and shutdown, flaring to the LOP flare stopped.

12. **Immediate Corrective Actions Taken:**

    MRC tried to restart [redacted] but was unsuccessful due to the plugged flow transmitter. This would have minimized the amount of light end hydrocarbon going to the gasoline column. The SGP was eventually completely depressurized and shutdown, and flaring stopped.
13. Was the Flaring the Result of an Emergency?
   Yes. Regulation 12 Rule 12 defines “Emergency” as “a condition at a petroleum refinery beyond the reasonable control of the owner or operator requiring immediate corrective action to restore normal and safe operation that is caused by a sudden, infrequent and not reasonably preventable equipment failure, natural disaster, act of war or terrorism or external power curtailment, excluding power curtailment due to an interruptible power service agreement from a utility.” Flaring was a result of a heater tripping off from a plugged flow monitor, which caused the gasoline column to reach a pressure that resulted in MRC having to safely depressurize the SGP and send SGP material to the flare. This was an emergency caused by a “sudden, infrequent and not reasonably preventable equipment failure.”

14. Was the Flaring Consistent with an Approved FMP?
   Yes, the flaring was consistent with Martinez Refining Company approved Flare Management Plan (FMP). As stated on page 3-1 of the FMP, Martinez Refining Company believes the key to flare minimization is careful planning to avoid flaring coupled with evaluation of any flaring events that occur and incorporation of lessons learned back into the planning process to further reduce flaring. As part of the FMP, Martinez Refining Company developed procedures to implement this process. As stated on page 3-1 of the FMP, “when these procedures are followed, any flaring is consistent with the FMP.” Operations followed procedure C(F)-20 – Unanticipated Flaring. This procedure addresses flare events caused by process upsets or unplanned events.

15. Was the Flaring due to a Regulatory Mandate to Vent to a Flare?
   The flaring was not due to a regulatory mandate to vent to the flare.

16. Prevention Measures Considered to Minimize Flaring from this Type of Flaring Event
   The heater flow meter tubing was unplugged, and the system was tested and verified to be functioning. No preventative measures have been identified at this time.