BAAQMD received on 07/17/24

Martinez
Refining Company

3485 Pacheco Boulevard
Martinez, CA 94553

VIA EMAIL

July 17, 2024

Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Subject: **May 6, 2024 Reportable FXG 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 May 6, 2024. The attached report discusses the cause of the flaring event and any prevention measures considered to prevent recurrence of the event.

Should you have any questions or concerns regarding this report, please contact me at (925) 313-5387 or at william.hewlett@pbfenergy.com.

Sincerely,

Will Hewlett

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Attachment

cc: ccrowley@baaqmd.gov and dfung@baaqmd.gov

Regulation 12 Rule 12 Reportable Flaring Event Causal Analysis Report

1. **Report Date:** July 17, 2024

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

3. **Refinery Contact and Phone Number:** William Hewlett (925) 313-5387

4. **Flare Identification:** [redacted] Flare S-1771

5. **Flaring Event Duration – [redacted] Flaring:**
   a. **Date:** May 6, 2024
      i. **Start Time:** May 6, 2024, 10:00 AM
      ii. **End Time:** May 6, 2024, 2:56 PM
      iii. **Total Duration of Event:** Approximately 4 hours and 56 minutes

6. **Brief Description of Flaring Event:**
   On May 6, 2024, at approximately 9:45 AM, a check valve failure with the [redacted] Air Compressor [redacted] created a loss of instrument air pressure throughout the refinery. The loss of instrument air led to control issues with the blastoff valve for the [redacted] Unit [redacted] /temporary air compressor system. The control issues with the [redacted] Unit blastoff valve caused a loss of air in the [redacted] Unit and ultimately a loss of [redacted] production. The sudden loss of [redacted] production created a pressure swing in the [redacted] flare gas header and resulted in emergency flaring, as described and allowed in MRC's BAAQMD approved Flare Minimization Plan.

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

8. **Volume of Gas Flared:** 2,177,587 SCF

9. **Total Emissions due to flaring based on Regulation 12 Rule 11 Methodology**

   a. 166 lbs of methane
   b. 3 lbs of non-methane hydrocarbons
   c. 14 lbs of sulfur dioxide

10. **Was the Gas Scrubbed?** Yes, the vent gas that went to the flare for this flaring event was scrubbed with water by the [redacted] Scrubber and [redacted] Cooler during the entire flaring event. In addition, the gas was also scrubbed with [redacted] in the [redacted] Absorber.

11. **Primary Cause of Flaring Event including Detailed Description of the Cause and Contributing Factors:** On May 6, 2024, at approximately 9:45 AM, a check valve failure with the [redacted] Air Compressor [redacted] caused an atmospheric air relief through the compressor blastoff valve. To maintain the air pressure in the header, [redacted] Air Compressor [redacted] began increasing it's air supply until it tripped to due to an overspeed condition. The [redacted] trip created an overall loss of instrument air pressure across the refinery. The loss of instrument air pressure led to control issues with the blastoff valve for the [redacted] Unit [redacted] /temporary air compressor system. The loss of instrument air caused the [redacted] Unit blastoff valve to fail open and relieve air directly to atmosphere. This resulted in a loss of air in the [redacted] Unit and led to a loss of [redacted] production which created a pressure swing in the flare gas header and resulted in emergency flaring.

12. **Immediate Corrective Actions Taken:**

Flaring continued while operations worked to stabilize the [redacted] Unit, the refinery furnaces, and resume [redacted] consumption.

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 sudden loss of air supplied to the Flexicoker Unit. Due to the loss of unit air, the Flexigas production dropped off, causing a pressure swing in the Flexigas distribution header system which required flaring. This was an emergency event 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

To help eliminate future flaring events this type of incident, the following action items will be completed:

1) Failed check valve on [redacted] will be replaced with upgraded design.

Figure 1: Process Flow Diagram