



3485 Pacheco Boulevard
Martinez, CA 94553

VIA UPS

June 29, 2023

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

Subject: April 2023 Reportable OPCEN HC 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 April 19, 2023. 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 Ms. Katie Hoffmann at (925) 313-5161 / kaitlyn.hoffmann@pbfenergy.com, or you may contact me at the numbers below.

Sincerely,

A handwritten signature in blue ink that reads "Michael Marlowe".

Michael Marlowe
Manager, Environmental Affairs
Martinez Refining Company, LLC
3485 Pacheco Boulevard
Martinez, CA 94553
O 925.313.3705
C 831.332.2820
michael.marlowe@pbfenergy.com

Attachment

cc: ccrowley@baaqmd.gov

Regulation 12 Rule 12 Reportable Flaring Event Causal Analysis Report

1. **Report Date:** June 29, 2023
2. **Refinery Name and Site Number:** Martinez Refining Company LLC (MRC) - BAAQMD Site # A0011
3. **Refinery Contact and Phone Number:** Katie Hoffmann (925) 313-5161
4. **Flare Identification:** OPCEN HC Flare [REDACTED]
5. **Flaring Event Duration:**
 - a. **Date:** April 19, 2023
 - i. **Start Time:** 7:50 AM
 - ii. **End Time:** 8:20 AM
 - iii. **Total Duration of Event:** 30 Minutes
6. **Brief Description of Flaring Event:**

[REDACTED] wet gas compressor tripped while attempting to remove the lube oil pressure controller from service. This event led to flaring on the OPCEN HC flare, resulting in SO₂ emissions greater than 500 pounds (lbs.).
7. **Process Flow Diagram:** see attached process flow diagram
8. **Volume of Gas Flared:** 375,246 SCF
9. **Total Emissions due to flaring based on Regulation 12 Rule 11 Methodology**
 - a. 110 lbs. of methane
 - b. 377 lbs. of non-methane hydrocarbons
 - c. 1,444 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:

On 04/19/2023, the Wet Gas Compressor [REDACTED] (WGC) tripped on low lube oil pressure during a routine maintenance operation. As a result, the Main Fractionator [REDACTED] over pressured. The Main Fractionator vent valve [REDACTED], which goes to the flare was opened in manual in attempt to control the pressure. During this time, the MF atmospheric vent valve [REDACTED] had lifted and released to the atmosphere.

On April 18th, operations attempted to switch from steam driven pump to a backup electric pump. The WGC experienced a near low pressure trip of the lube oil system during the switch from the turbine to electric, [REDACTED]. They decided to hold off putting the turbine online for another day to address the issues with more people present. On the 19th, Operations discussed what could be causing the low lube oil pressure. Pressure control valve [REDACTED] has had issues in the past, where the pressure control valve did not respond quickly enough and caused a sudden drop in lube oil pressure. The valve [REDACTED] was rebuilt [REDACTED]. They decided to route flow through a bypass valve so they could manually control the pressure. [REDACTED] valve is located on the opposite side of the skid from the indication, so it

requires two people to adjust the valve and monitor the pressure. One operator stood at a pressure indication, while a second operator started to close the downstream block valve. When the [REDACTED] closed the pressure dropped and the compressor tripped on low [REDACTED] differential seal oil. Operations opened the Main Fractionator overhead to the flare to prevent overpressure of the Main Fractionator Column. The vent valves to the flare did not open fast enough which caused the [REDACTED] to lift and vent to atmosphere.

12. Immediate Corrective Actions Taken:

To minimize flaring, operations started the steam driven lube oil pump back up and took down the electric motor driven. When the lube oil pressure was stable enough operations were able to restart WGC [REDACTED] compressor. Once the WGC [REDACTED] was restarted, the unit was restored to a stable condition. Operations then requested instrumentation to test [REDACTED]. The valve was found to be functioning per design. There was possible air in the impulse tubing to the control valve which was fully refilled during testing.

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.”.

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

- a. Added the Main Fractionator pressure to the Human Machine Interface. The Main Fractionator pressure was not previously on the lube oil display screen but was found on another display. Operations added the main fractionator to the lube oil screen and a corrective measure.
- b. Re-range the Accumulator pressure display [REDACTED] so that the operator can see when it goes [REDACTED]. This should be completed by the end of the 3rd quarter.
- c. Modify the pressure control for [REDACTED] to include a high select in relation [REDACTED]. This should be completed by the end of the 3rd quarter.

Figure 1: Process Flow Diagram.

[This figure has been redacted from the Public Version as it contains Business Confidential Information/ Trade Secrets]

Signature: *audrey galimbe*

Email: audreygalimba@baaqmd.gov

Signature: *Danny Fung*

Email: dfung@baaqmd.gov