

cc 4/12/23

JWK 4/12/23

AG 04/12/23



3485 Pacheco Boulevard
Martinez, CA 94553

VIA UPS

March 28, 2023

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

Subject: January 2023 Reportable FXG Flaring Event Incident Report for Flexicoker Shutdown-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 during shutdown of the flexicoker from January 4 through January 7, 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:** March 27, 2023
2. **Refinery Name and Site Number:** Martinez Refining Company - BAAQMD Site # A0011
3. **Refinery Contact and Phone Number:** Katie Hoffmann (925) 313-5161
4. **Flare Identification:** [REDACTED]
5. **Flaring Event Duration – [REDACTED] Shutdown:**
 - a. **Date:** January 04, 2023 - January 07, 2023
 - i. **Start Time:** January 04, 2023 1:12 am
 - ii. **End Time:** January 07, 2023 10:06 pm
 - iii. **Total Duration of Event:** Approximately 94 hours

6. **Brief Description of Flaring Event:**

[REDACTED] low-BTU fuel gas made in the [REDACTED] and burned in the refinery heaters along with refinery fuel gas. During shutdown, [REDACTED] resulting in flaring greater than 0.5 MMSCFD.

[REDACTED] which produces [REDACTED] was shut down for a scheduled major maintenance turnaround. To ensure safe and reliable operation of the refinery heaters that combust [REDACTED] [REDACTED] cannot be burned in the refinery heaters during shutdown of the [REDACTED] since the gas composition changes significantly during these periods.

7. **Process Flow Diagram:** see attached process flow diagram
8. **Total Volume of Gas Flared:** 120,824,404 SCF

Volume flared on 01/04/2023: 48,467,395 SCF

Volume flared on 01/05/2023: 25,389,920 SCF

Volume flared on 01/06/2023: 32,723,643 SCF

Volume flared on 01/07/2023: 14,248,446 SCF

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

Total Emissions

- a. 6952 lbs of methane
- b. 259 lbs of non-methane hydrocarbons
- c. 333 lbs of sulfur dioxide

Emissions by Date

01/04/2023

- a. 2381 lbs of methane
- b. 157 lbs of non-methane hydrocarbons
- c. 239 lbs of sulfur dioxide

01/05/2023

- a. 1535 lbs of methane
- b. 39 lbs of non-methane hydrocarbons
- c. 90 lbs of sulfur dioxide

01/06/2023

- a. 2077 lbs of methane
- b. 43 lbs of non-methane hydrocarbons
- c. 3 lbs of sulfur dioxide

01/07/2023

- a. 959 lbs of methane
- b. 20 lbs of non-methane hydrocarbons
- c. 1 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:

[REDACTED] must be shut down on a regular cycle for major maintenance to ensure safe and reliable operation. The primary cause of the [REDACTED] flaring is the basic design of the [REDACTED] and how it must be shut down.

[REDACTED] During shutdown this gas must be flared because the heat content value changes and can no longer be sent to the heaters.

12. Immediate Corrective Actions Taken:

To minimize flaring, the [REDACTED] kept in the heaters as long as possible during shut down.

13. Was the Flaring the Result of an Emergency?

No, the flaring was required as part of a planned shutdown of the unit for turnaround.

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)-21 – Flaring Due to Unit Startup, Unit Shutdown, Major Maintenance, or Turnaround Activities and C(F)-22 – Fuel System Management during Flaring Events. Also see discussion under Section 401.4 on page 4-84 of the FMP

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 flaring of [REDACTED] shut down could not be eliminated but was minimized in the following ways:

- Operations and Process Engineering carefully reviewed the shutdown procedures to minimize the amount of flaring while ensuring the stable operation of the heaters that

-

[REDACTED] MRC's permit to operate limits the SO2 emissions from flaring [REDACTED] is bypassed.

Any learnings from this turnaround will be incorporated into the shutdown and startup procedures to assure there is continuous improvement in flare minimization during [REDACTED].

Figure 1: Process Flow Diagram

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

Signature: *Jeremy W Kimball*

Email: jkimball@baaqmd.gov

Signature: *audrey galimba*

Email: audreygalimba@baaqmd.gov