



Kris Battleson
HSE Manager, Richmond Refinery

April 29, 2025

Via E-mail

Bay Area Air District
Attn: Compliance and Enforcement Division
375 Beale Street, Suite 600
San Francisco, CA 94105

**Chevron Richmond Refinery
March 2025 Flaring Causal Analysis Report**

To Whom It May Concern:

Attached is the flaring causal analysis report for March 2025 for Chevron's Richmond Refinery. This report is submitted pursuant to Regulation 12, Rule 12, Section 12-12-406. The report is due within 60 days of the end of March 2025 for any reportable flaring events that occurred during the month of March 2025.

There was one (1) reportable flaring event that occurred in March, 2025.

If you have any questions, please contact Duy Nguyen at 510-242-3132 or duy.nguyen@chevron.com

Sincerely,

for

Kris Battleson

Attachment

cc: Danny Fung, Bay Area Air Quality Management District (via e-mail, w/ attach)
Cristobal Frias, Bay Area Air Quality Management District (via e-mail, w/ attach)
Chris Coelho, Bay Area Air Quality Management District (via e-mail, w/ attach)
Haley Downing, Bay Area Air Quality Management District (via e-mail, w/ attach)
Kevin Cordes, Bay Area Air Quality Management District (via e-mail, w/ attach)

Richmond Refinery
Chevron Products Company
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841 Chevron Way, Richmond, CA 94801
Tel (510) 242-1400 Fax (510) 242-3762

Attachment I

Causal Analysis Report

Chevron Richmond Refinery
Reportable Flaring Events

March 02, 2025

Flaring Due to Startup of Hydrogen Plant Trains

Refinery Flare Event – Cause Investigation Report

1. Date on which the report was drafted: April 29, 2025

2. The refinery name and site number:

Refinery: Chevron Richmond Refinery

Refinery Site Number: A0010

3. The assigned refinery contact name and phone number:

Contact Name: Duy Nguyen

Contact Phone Number: (510) 242-3132

Is this a rescission/modification of a previous report: No

Date of initial report: Not Applicable

Reason for rescission/modification: Not Applicable

4. Identification of flare(s) at which the reportable event occurred by reviewing water seal monitoring data to determine which seals were breached during the event

Flare	Reportable Event (SO2 or Vent Gas Volume)
H2 (S-6021)	Vent Gas Volume

5. The flaring event duration for each affected flare

Flare (Source Number): H2 (S-6021)

The Date(s) of the event: March 02, 2025

The start time of the event: 03/02/2025 01:27 AM

The end time of the event: 03/02/2025 10:12 AM

6. A brief description of the flaring event –

On March 02, 2025, Hydrogen Plant Train started up. Hydrogen Plant startup procedures include routing flows to relief and subsequent flaring. Operations timely proceeded with the startup activities per the procedure to reduce the emissions.

7. A process flow diagram showing the equipment and process units that were the primary cause of the event.

See Attachment Ia.

8. The total volume of vent gas flared (MMSCF) throughout the event

Flare	Volume (MMSCF)
H2	22.5

9. The emissions associated with the flaring event per calendar day

Flare	Calendar Day	CH4 (lbs.)	NMHC (lbs.)	SO2 (lbs.)
H2	February 07, 2025	3,482	164	30.6

10. A statement as to whether or not the gas was scrubbed to eliminate or reduce any entrained compounds and a list of the compounds for which the scrubbing was performed.

The vent gas was not scrubbed to eliminate or reduce any entrained compounds.

11. The primary cause of the flaring event includes a detailed description of the cause and all contributing factors. Also identify the upstream process units that contributed vent Gas flow to the flare header and provide other flow instrumentation data where available.

Primary causal factor: Procedures are designed to adhere to unit and flare system design.

The primary contributor of the vent gas to the flare was the Hydrogen Plant Train.

12. Describe all immediate corrective actions to stabilize the flaring event, and to reduce or eliminate emissions (flare gas recovered or stored to minimize flaring during the event). If a decision was made not to store or recover flare gas, explain why.

Operations timely proceeded with the startup activities per the procedure to reduce any associated emissions. The Hydrogen Plant does not have flare gas recovery.

13. Was the flaring the result of an emergency? If so, was the flaring necessary to prevent an accident, hazard or release to the atmosphere?

Flaring was not due to an Emergency (defined in Regulation 12-12-201) as interpreted by the BAAQMD.

14. If not the result of an emergency and necessary to prevent an accident, hazard or release to the atmosphere, was the flaring consistent with an approved FMP? If yes, provide a citation to the facility's FMP and any explanation necessary to understand the basis for this determination.

Flaring was consistent with Chevron's FMP Section 2.1 Table 2-4. Table 2-4 identifies sources that can be flared in non-emergency situations (e.g. start-up, shutdown).

15. If the flaring was due to a regulatory mandate to vent to flare, why couldn't the gas be recovered, treated, and used as fuel gas?

N/A. Flaring was not due to a regulatory mandate.

16. Identify and describe in detail each prevention measure (PM) considered to minimize flaring from the type of reportable flaring event that occurred.

a) State whether the PM is feasible (and will be implemented), or not feasible

b) Explain why the PM is not feasible, if applicable

Flaring cannot be prevented during Hydrogen Plant startup due to facility and relief system design. Operational activities were consistent with shutdown procedures.

Attachment Ia: Flaring Due to Startup of Hydrogen Plant Train

