



Kris Battleson
HSE Manager, Richmond Refinery

December 17, 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
October 2025 Flaring Causal Analysis Report**

To Whom It May Concern:

Attached is the flaring causal analysis report for October 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 October 2025 for any reportable flaring events that occurred during the month of October 2025.

There were two (2) reportable flaring events that occurred in October 2025.

If you have any questions, please contact Luke Honnen at 510-242-5271 or Luke.Honnen@chevron.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Kris Battleson".

for

Kris Battleson

Attachment

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

Richmond Refinery
Chevron Products Company
A Division of Chevron U.S.A. Inc.
841 Chevron Way, Richmond, CA 94801
Tel (510) 242-1400 Fax (510) 242-3762

Attachment II

Causal Analysis Report

Chevron Richmond Refinery
Reportable Flaring Events

October 28, 2025 and October 29, 2025
Flaring Due to Unplanned Shutdown

Refinery Flare Event – Cause Investigation Report

1. Date on which the report was drafted: December 17, 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: Luke Honnen

Contact Phone Number: (510) 242-5271

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)
SISO (S-6012)	SO2
NISO (S-6013)	SO2

5. The flaring event duration for each affected flare

Flare (Source Number)	Event Date	Start Time	End Time
SISO (S-6012)	28-October-25	10/28/2025 23:44	10/28/2025 23:59
SISO (S-6012)	29-October-25	10/29/2025 00:00	10/29/2025 00:01
NISO (S-6013)	28-October-25	10/28/2025 23:50	10/28/2025 23:59
NISO (S-6013)	29-October-25	10/29/2025 00:00	10/29/2025 00:05
ALKY (S-6019)*	28-October-25	10/28/2025 23:44	10/28/2025 23:59
ALKY (S-6019)*	29-October-25	10/29/2025 00:00	10/29/2025 00:01
RLOP (S-6039)*	28-October-25	10/28/2025 23:51	10/28/2025 23:59
RLOP (S-6039)*	29-October-25	10/29/2025 00:00	10/29/2025 00:01
FCC (S-6016)*	28-October-25	10/28/2025 23:44	10/28/2025 23:59
FCC (S-6016)*	29-October-25	10/29/2025 00:00	10/29/2025 08:07

**Reporting per recommendation from BAAD to include vent gas volume and emission from the other flares occurring during the same flaring event.*

6. A brief description of the flaring event:

On October 28, 2025, a recycle gas compressor tripped due to power failure caused by physical contact between a plant operator and the compressor power supply breaker switch. Once it was determined that the compressor could not be immediately restarted, shutdown of the unit was initiated, resulting in the unplanned flaring event.

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

See Attachment IIa.

8. The total volume of vent gas flared (MMSCF) and emissions throughout the event per calendar day:

Flare (Source Number)	Event Date	Volume (mmscf)	CH4 (lbs.)	NMHC (lbs.)	SO2 (lbs.)
SISO (S-6012)	28-October-25	0.165	8.9	27.0	734.4
SISO (S-6012)	29-October-25	0.0393	2.3	7.9	220.2
NISO (S-6013)	28-October-25	0.266	9.7	31.2	1,115
NISO (S-6013)	29-October-25	0.179	11.9	25.3	928.7
ALKY (S-6019)*	28-October-25	0.0131	0.5	4.1	51.5
ALKY (S-6019)*	29-October-25	0.0000139	0.0	0.0	0.0
RLOP (S-6039)*	28-October-25	0.00202	0.2	1.9	2.7
RLOP (S-6039)*	29-October-25	0.000776	0.1	0.6	1.0
FCC (S-6016)*	28-October-25	0.0982	10.1	40.9	259.4
FCC (S-6016)*	29-October-25	0.0960	20.4	57.8	194.0

**Reporting per recommendation from BAAD to include vent gas volume and emission from the other flares occurred during the same flaring event.*

9. 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.

10. The primary cause of the flaring event including 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: The lack of a physical barrier to prevent unintentional physical contact between plant operator and the power supply breaker switch.

The primary contributor of the vent gas to the flare was multiple operating plants.

11. 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 immediately attempted to restart the tripped compressor. The tripped compressor was unable to be restarted immediately because the power supply to the compressor control panel was inactive. Once Operations determined that the compressor could not be immediately restarted, shutdown of the unit was initiated.

12. 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 Air District.

13. 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 2-2. Table 2-2 identifies sources that can be flared in non-emergency situations (e.g. start-up, shutdown).

14. 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.

15. 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

The prevention measure listed below is feasible and will be considered:

1. Install protective cover on affected breaker switch to minimize potential for accidental contact. Estimated Completion Date: 03/15/2026

Attachment IIa: Flaring Due to Unplanned Shutdown

