

**ATTENTION:** Nicole Heath  
 Acting Hazardous Materials Program Director  
 Contra Costa Health Services Department  
 4585 Pacheco Boulevard Suite 100  
 Martinez, CA 94553

**INCIDENT DATE:** 3/9/2023  
**INCIDENT TIME:** 19:45  
**FACILITY:** Chevron Richmond Refinery

**PERSON TO CONTACT FOR ADDITIONAL INFORMATION:**  
 Laura Leeds (510) 242-3887 (office)

**For CCHS Use Only:**

**Received By:**  
AS

**Date Received:**  
3/13/23

**Incident Number:**  
230309-01

**Copied To:**  
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**Event Classification Level:**  
1

**I. SUMMARY OF EVENT**

On 3/9/2023 at 19:45, flaring occurred at the North Yard as stabilizing actions were performed in reaction to a hydrogen producing plant tripping offline due to electrical equipment malfunction. A fire at a pump was quickly extinguished at one of the units affected after the pump developed a seal leak on the outboard seal.

**II. AGENCIES NOTIFIED, INCLUDING TIME OF NOTIFICATION**

After making a determination of potential off-site visibility from flaring, in accordance with the Contra Costa County Health Services (CCCHS) incident notification policy, a Community Warning System (CWS) Level 1 notification was sent.

Primary CWS:

- Level 1 CWS activated for flaring at approximately 19:50
  - Note: Equipment fire notification included in subsequent update to CCCHS

Secondary: Subsequent notifications via telephone to the agencies below

Agency	Person Reached	Phone Number	Time
Richmond Fire/Police Central Dispatch	Dispatcher #1354	510-620-6933	19:51
Contra Costa County Health Services Department	Dispatcher #82234	925-677-6700	19:53
BAAQMD	Left Message	415-749-4979	19:54
BAAQMD for Flow >500,000 SCF	Email	Flarenotification@baaqmd.gov	00:15 (3/10/23)
SOES	Romney	800-852-7550	01:10 (3/10/23)

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### III. AGENCIES RESPONDING, INCLUDING CONTACT NAMES AND PHONE NUMBERS:

At this time, we are aware of the following agencies that have responded.

Richmond Fire Department	Arrived 3/9/23 21:10	Departed 3/9/23 22:40
BAAQMD	Arrived 3/10/23 15:00	Departed 3/10/23 17:00

### IV. EMERGENCY RESPONSE ACTION:

On 3/9/2023 at 19:45, flaring occurred at the North Yard as stabilizing actions were performed in reaction to a hydrogen producing plant tripping offline due to electrical equipment malfunction. At the start of the flare activity, Chevron Fire Department (CFD) initialized standard downwind monitoring (10-point atmospheric evaluation between the community and the refinery).

At approximately 20:06, CFD was called to one of the process plants for a leak on a pump outboard seal that had caught fire during efforts to shut down the plant. Once CFD was on scene, command was established, and suppression efforts were initiated. As a precaution, mutual aid was requested from the City of Richmond Fire Department. The fire was extinguished by CFD and Operations via initial suppression tactics before mutual aid arrived at the facility. CFD remained on scene while operations further stabilized the process plant and secured the leak. Mutual aid was released. Downwind monitoring was conducted again including the 10-point check with no recordable reading. Command was terminated. No injuries or public complaints were reported.

### V. IDENTITY OF MATERIAL RELEASED AND ESTIMATED OR KNOWN QUANTITIES:

Emissions from flaring associated with the event are summarized below. Vent gases were combusted with at least 98% combustion efficiency.

	Flare emissions
Vent Gas Volume (SCF)	4,636,315
SO <sub>2</sub> (lbs)	33,972

\* Flare emissions data presented herein is for the date of the flaring (3/9/2023-3/10/2023). Estimates herein are based on currently available data and are pending sample analysis. Upon further investigation and analyses, an update will be provided should a significant change of the data occur.

### VI. METEOROLOGICAL CONDITIONS AT TIME OF EVENT:

Wind Speed (mph)	15 MPH
Wind Direction (degree)	165
Precipitation (inches)	2.73 inches
Temperature (F)	52.4F

Information based on data received from the Refinery's meteorological station which is located near Gertrude Street.

**VII. DESCRIPTION OF INJURIES:**

There were no injuries associated with this event.

**VIII. COMMUNITY IMPACT:**

There were no regulatory exceedances based on Ground Level Monitoring (GLM) data. There are no detections above known health limits based on Air Monitoring data. H<sub>2</sub>S and SO<sub>2</sub> levels during the incident were slightly elevated (1-3ppb) when compared to the one-hour background concentration at the GLM locations.

**Ground Level Monitoring Data Summary**

Background Prior to and Maximum Concentration Readings During the Flaring			
	Castro Street	Office Hill	Gertrude Street
H <sub>2</sub> S (ppb) Background, 1HR AVG (18:40-19:40)	3.065	3.280	1.839
H <sub>2</sub> S (ppb) Max.	5.102	6.201	2.604
SO <sub>2</sub> (ppb) Background 1HR AVG (18:40-19:40)	4.241	4.482	2.187
SO <sub>2</sub> (ppb) Max.	6.701	4.514	3.506

Note: The Cal/OSHA PEL for SO<sub>2</sub> is 2,000 ppb (2 ppm) averaged over an 8-hour period. The Cal/OSHA PEL for H<sub>2</sub>S is 10,000 ppb (10 ppm) averaged over an 8-hour period.

**Fence Line Air Monitoring Summary**

During the time period of flaring, no obvious detections were seen at fence line air monitoring stations.

**Community Air Monitoring Summary**

During the time period of flaring, no obvious detections were seen at community air monitoring stations.

**IX. INCIDENT INVESTIGATION RESULTS:**

An incident investigation will be conducted to determine root causes associated with these events.

**X. SUMMARIZE INVESTIGATION RESULTS BELOW OR ATTACH COPY OF REPORT:**

Results will be determined by the investigation.

**XI. SUMMARIZE PREVENTABLE MEASURES TO BE TAKEN TO PREVENT RECURRENCE INCLUDING MILESTONE AND COMPLETION DATES FOR IMPLEMENTATION**

Preventable measures will be determined by the investigation.