ATTENTION: Matthew Kaufman  
Hazardous Materials Program Director  
Contra Costa Health Services Department  
4585 Pacheco Boulevard  
Martinez, CA 94553

INCIDENT DATE: 3/21/2022  
INCIDENT TIME: 07:45  
FACILITY: Chevron Richmond Refinery

PERSON TO CONTACT FOR ADDITIONAL INFORMATION:  
Laura Leeds / Phone Number: (510) 242-3887

I. SUMMARY OF EVENT

On 3/21/2022 at approximately 07:45 flaring occurred when safety systems automatically activated after pumps malfunctioned within a process unit. A CWS Level 1 notification was made. The flaring stopped at approximately 09:01.

II. AGENCIES NOTIFIED, INCLUDING TIME OF NOTIFICATION

In accordance with the Contra Costa County Health Services (CCCHS) Incident Notification Policy, a CWS Level 1 notification was sent.

Primary: Community Warning System (CWS):

- Level 1 CWS activated at approximately 08:01

Secondary: Subsequent notifications via telephone to the agencies below

<table>
<thead>
<tr>
<th>Agency</th>
<th>Person Reached</th>
<th>Phone Number</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richmond Fire/ Police Central Dispatch</td>
<td>Dispatch #1284</td>
<td>510-620-6933</td>
<td>08:15</td>
</tr>
<tr>
<td>Contra Costa County Health Services Department</td>
<td>Ian Williams</td>
<td>925-655-3232</td>
<td>08:13</td>
</tr>
<tr>
<td>BAAQMD</td>
<td>Left Message</td>
<td>415-749-4979</td>
<td>08:18</td>
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</tbody>
</table>

The list above does not include all representatives from all agencies.
III. AGENCIES RESPONDING, INCLUDING CONTACT NAMES AND PHONE NUMBERS:

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

| Contra Costa County Health Services Department | Two follow-up phone calls from Ian Williams |

IV. EMERGENCY RESPONSE ACTION:

No emergency response action was required or initiated.

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.

<table>
<thead>
<tr>
<th>Flare emissions</th>
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</thead>
<tbody>
<tr>
<td>Vent Gas Volume (SCF)</td>
</tr>
<tr>
<td>SO$_2$ (lbs)</td>
</tr>
</tbody>
</table>

* Flare emissions data presented herein is for the date of the flaring (3/21/2022). Estimates herein are based on currently available data. 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) | 3.6 |
| Wind Direction (degree) | 134 |
| Precipitation (inches) | 0.0000 |
| Temperature (F) | 52 |

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 data. There were no detections above known health limits based on Air Monitoring data.
iness: 06:45 to 07:45

H₂S (ppb) Max. 3.677 4.249 2.085

SO₂ (ppm) Background 06:45 to 07:45 5.679 5.511 2.359

SO₂ (ppm) Max. 6.701 5.694 3.498

Any other items detected to report

Note: The Cal/OSHA PEL for SO₂ is 2,000 ppb (2 ppm) averaged over an 8-hour period. The Cal/OSHA PEL for H₂S is 10,000 ppb (10 ppm) averaged over an 8-hour period.

Fence Line Air Monitoring Summary

During the time period of the event, there was a slightly elevated detection of benzene on the Atchison fence line path. However, wind direction during this detection suggests a source other than the refinery. This detection did not exceed known health standards or regulatory limits. It is common for fence line monitoring sites to register slightly elevated detections of this compound from other offsite sources.

Community Air Monitoring Summary

During the time period of the event, a slightly elevated detection of black carbon was seen at the North Richmond stationary community air monitoring station. During the time period of the event, a slightly elevated detection of m,p-xylene was seen at the Atchison stationary community air monitoring station. However, wind direction during these detections suggests a source other than the refinery. Neither of these detections exceeded known standards or regulatory limits. It is common for community monitoring sites to register slightly elevated detections of these compounds from other offsite sources.

During the flaring event the Chevron Fire Department conducted mobile air monitoring both in the facility and in the community. No readings were noted on atmospheric testing equipment at any of the tested locations, nor on community fence lines.

IX. INCIDENT INVESTIGATION RESULTS:
An incident investigation will be conducted to determine the root cause(s) that led to flaring.

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.