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

INCIDENT DATE: November 6, 2021  
INCIDENT TIME: 20:16  
FACILITY: Chevron Richmond Refinery

PERSON TO CONTACT FOR ADDITIONAL INFORMATION:  
Shawn Lee / Laura Leeds (510) 242-1400 (office) / (510) 242-3887 (office)

I. SUMMARY OF EVENT

At 20:16 on November 6, 2021 City of Richmond Fire Department (RFD) notified Chevron Fire Department (CFD) dispatch of multiple sulfur-type odor complaints around Chancellor and Marine Street. CFD was dispatched to investigate.

II. AGENCIES NOTIFIED, INCLUDING TIME OF NOTIFICATION

The Bay Area Air Quality Management District (BAAQMD), RFD, and Contra Costa County Health Services (CCHS) contacted the refinery to inquire whether the odors reported originated at the refinery.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Communication With</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFD</td>
<td>Battalion 64 – Aaron Rosario</td>
<td>20:16</td>
</tr>
<tr>
<td>BAAQMD</td>
<td>Not documented</td>
<td>Not documented</td>
</tr>
<tr>
<td>CCHS</td>
<td>John Pham</td>
<td>22:15</td>
</tr>
</tbody>
</table>

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

At this time, we are aware of the following agencies that have responded or inquired about odors reported to RFD. Richmond Fire Department responded to identify the source of the odors the evening of 11/6/2021. The following agencies also inquired into the 11/6/2021 odor complaints received by BAAQMD and RFD.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Contact Name(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAAQMD</td>
<td>Ed Giacometti , Linda Duca</td>
<td>11/10/2021</td>
</tr>
</tbody>
</table>
IV. EMERGENCY RESPONSE ACTION:

CFD investigated the external odor complaints reported to RFD in the area of Chancellor Street in the City of Richmond. Odors were detected by nose from 4th Street and McDonald Ave to 24th Street and Chancellor and were present in portions of the area for approximately 45 minutes. CFD checked internal facility areas including bioreactor and North Yard process units and did not find a source of odors. There were no detectable readings on mobile air quality monitors. CFD contacted RFD by phone to provide information on investigation.

Additional background: Approximately 30 minutes prior to RFD notification to CFD of odor complaints, the Castro Street Ground Level Monitor (GLM) alerted CFD to elevated H2S readings, with a peak of 127 parts per billion (ppb) in a 1 minute average compared to the health standard limit for H2S, which is 10,000 ppb in an 8 hour period. Per refinery policy, CFD immediately responded to the GLM alert by deploying to area to perform air monitoring around the Castro Street GLM. CFD performed air monitoring around the Castro Street GLM for approximately 15 minutes and found that there were no detectable readings on the mobile air quality monitor.

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

The source of the odors reported could not be conclusively determined.

VI. METEOROLOGICAL CONDITIONS AT TIME OF EVENT:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Average data from 19:45 to 20:45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind Speed (mph)</td>
<td>7.7 mph</td>
</tr>
<tr>
<td>Wind Direction (degree)</td>
<td>290 (WNW)</td>
</tr>
<tr>
<td>Temperature (F)</td>
<td>57 degrees F</td>
</tr>
</tbody>
</table>

VII. DESCRIPTION OF INJURIES:

There were no injuries.

VIII. COMMUNITY IMPACT:

CFD received notification from the RFD of community odor complaints. Air quality monitoring completed by CFD reported below instrument detection limits.

IX. INCIDENT INVESTIGATION RESULTS:

The summary of response / investigation by refinery personnel on nightshift of 11/6/2021 is provided here:

- All air sampling results were reported below detection limits during two different CFD air monitoring actions; one in response to the Castro Street GLM alert and the second in response to RFD notification of odor complaints.
- No flaring was occurring during this time.
• Reviewed conditions of various nearby storage tanks during time of odor complaints and found no abnormal movements or conditions that would lead to external tank odors.

• Investigated other work activities occurring in the facility at the time of the odor complaints and found that the only non-routine work activity that had occurred around the time of the odor report was the removal and reinstallation of two pressure relief devices (PRDs) in the northern part of the refinery. The PRD replacement work occurred within a 30-minute window and used appropriate lock-out tag-out processes to isolate the PRDs from the process. No in plant H2S detectors alarmed unexpectedly during this work activity.

Is the investigation of the incident complete at this time? _____x_____ Yes  _________No

X. SUMMARIZE INVESTIGATION RESULTS BELOW OR ATTACH COPY OF REPORT:
Refinery personnel were not able to identify odors or activity at our facility that would have led to offsite odors.

XI. SUMMARIZE PREVENTABLE MEASURES TO BE TAKEN TO PREVENT RECURRENCE INCLUDING MILESTONE AND COMPLETION DATES FOR IMPLEMENTATION
We take odor inquiries seriously and investigate them, however, due to the uncertainty of the cause of the odors, no preventive measures are identified. Chevron continues to work with agencies to monitor air quality along our fence line and in the community.