



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE

SUMMARY

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| Report: | Chevron Refinery Fire |
| Recommendation Number(s): | 2012-3-I-CA-R19 |
| Date Issued: | April 19, 2013 |
| Recipient: | U.S. Environmental Protection Agency |
| New Status: | Closed – Acceptable Action |
| Date of Status Change: | December 29, 2015 |

Recommendation Text:

Participate in the joint regulatory program described in recommendation 2012-03-I-CA-R11. This participation shall include contributing relevant data to the repository of investigation and inspection data created by the California Department of Industrial Relations and jointly coordinating activities.

Board Status Change Decision:

A. Rationale for Recommendation

On August 6, 2012, the Chevron refinery in Richmond, California, experienced a catastrophic pipe failure in a crude unit, causing the release of flammable hydrocarbon process fluid which partially vaporized into a large vapor cloud. Nineteen Chevron employees engulfed by the vapor cloud escaped, narrowly avoiding serious injury. The ignition and subsequent continued burning of the hydrocarbon process fluid resulted in a large plume of particulates and vapor. Approximately 15,000 people from the surrounding area sought medical treatment in the weeks following the incident.

The CSB's investigation found that the pipe failure was caused by sulfidation corrosion, a damage mechanism that causes piping walls to thin. The Chevron Richmond refinery conducted a Process Hazard Analysis (PHA) of the crude unit as required by California Code of Regulations, Title 8, Section 5189, *Process Safety Management of Acutely Hazardous Materials* (PSM); however, this regulation does not require the conduct of formal damage mechanism hazard reviews. As a result of this finding, as well as other identified gaps in California's PSM regulation, the CSB recommended to the Governor and Legislature of the State of California that it revise its PSM regulation for refineries. The CSB also recommended that the regulatory process be a joint program inclusive of relevant stakeholders. This evaluation pertains only to the participation of the U.S. Environmental Protection Agency (U.S. EPA) in the California PSM revisions (2012-3-I-CA-R19).

B. Response to the Recommendation

The California Environmental Protection Agency (Cal/EPA) formed the Interagency Refinery Task Force (IRTF) in August 2013 following a directive from the Governor's July 2013 report, "Improving Public and Worker Safety at Oil Refineries." The IRTF membership consists of ten state agencies, the U.S. EPA, and local agencies from areas of California that contain refineries. The IRTF has provided input and suggestions for improvement on both Cal/EPA's revisions to its Accidental Release Prevention program (CalARP), as well as the Department of Industrial Relations' revisions to its PSM for refineries program. The U.S. EPA has actively participated in the IRTF meetings. The IRTF is expected to convene on a permanent basis quarterly through the CalARP and PSM rulemaking process (both expected to be

completed in Summer 2016) and on a tri-annual basis following finalization to work on the implementation of the rules.

C. Board Analysis and Decision

Based on the above, the Board voted to change the status of CSB Recommendation No. 2012-3-I-CA-R19 to “**Closed – Acceptable Action.**”