



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE

SUMMARY

Report:	Chevron Refinery Fire
Recommendation Number(s):	2012-3-I-CA-R20
Date Issued:	April 19, 2013
Recipient:	California Environmental Protection Agency (Cal/EPA)
New Status:	Closed – Exceeds Recommended 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 California Environmental Protection Agency (Cal/EPA) in the California PSM revisions (2012-3-I-CA-R20).

B. Response to the Recommendation

Following the Chevron refinery fire, the Governor of California commissioned a report, "Improving Public and Worker Safety at Oil Refineries," in July 2013. One of the recommendations in this report included the establishment of a permanent Interagency Refinery Task Force (IRTF) to be coordinated by Cal/EPA. Cal/EPA formed the IRTF in August 2013. The IRTF membership consists of ten state agencies, the U.S. EPA, and local agencies from areas of California that contain refineries.

The report stated that the IRTF should work with state, federal and local agencies to facilitate and monitor the implementation of the recommendations in the Governor's report. The recommendations include strengthening the California Accidental Release Prevention Program (CalARP) and Process Safety Management (PSM) regulations and enhancing coordination of regulatory oversight and enforcement.

The IRTF has provided input and suggestions for improvement on both Cal/EPA's revisions to the CalARP program, as well as the California Department of Industrial Relations' (DIR) revisions to the PSM program, both of which have been released for public comment.¹ The IRTF is expected to convene on a permanent basis, meeting quarterly through the CalARP and PSM rulemaking processes (both expected to be completed in Summer 2016) and on a tri-annual basis thereafter to implement the rules.

In addition to coordinating the IRTF, Cal/EPA has held extensive public meetings throughout California to ensure that all relevant stakeholders and community members have opportunity to understand and provide comment on the PSM and CalARP regulation changes. Cal/EPA also maintains a website with extensive background information available for public meeting participants and shows substantial contribution to information and data sharing among stakeholders.² Cal/EPA has worked closely with the California Occupational Safety and Health Administration (Cal/OSHA) to ensure that the PSM and CalARP regulations are closely aligned, demonstrating exceptional interagency collaboration.

C. Board Analysis and Decision

Based on the above, the Board voted to change the status of CSB Recommendation No. **2012-3-I-CA-R20** to **"Closed – Exceeds Recommended Action."**

¹ <http://www.calepa.ca.gov/Refinery/>

² <http://www.calepa.ca.gov/Refinery/Resources/default.htm>