



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE

SUMMARY

Report:	Chevron Refinery Fire
Recommendation Number(s):	2012-3-I-CA-R17
Date Issued:	April 19, 2013
Recipient:	City of Richmond, CA; Mayor and City Council
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 status change summary pertains only to the participation of the City of Richmond in the California PSM revisions (2012-3-I-CA-R17).

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 has provided input and suggestions for improvement on both Cal/EPA's revisions to the Accidental Release Prevention program, as well as the Department of Industrial Relations' (DIR) revisions to the PSM regulations. The City of Richmond has participated by co-hosting safety forums and attending IRTF meetings in Contra Costa County. In addition, the City of Richmond has revised its Industrial Safety Ordinance (ISO) amendments to include language that facilitates cooperation between industry and oversight agencies and requires sharing audit/inspection reports with other oversight agencies.

C. Board Analysis and Decision

As a result of these actions, the Board voted to change the status of CSB Recommendation No. 2012-3-I-CA-R17 to "Closed – Acceptable Action."