



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE SUMMARY

Report:	Chevron Refinery Fire
Recommendation Number(s):	2012-3-I-CA-UR02
Date Issued:	April 19, 2013
Recipient:	Chevron USA
New Status:	Open – Acceptable Response or Alternate Response
Date of Status Change:	February 12, 2018

Recommendation Text:

CSB Recommendation No. 2012-3-I-CA-UR02

At all California Chevron U.S. refineries, report leading and lagging process safety indicators, such as the action item completion status of recommendations from damage mechanism hazard reviews, to the federal, state, and local regulatory agencies that have chemical release prevention authority.

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 a flammable hydrocarbon process fluid which partially vaporized into a large cloud. Nineteen Chevron employees engulfed by the vapor cloud narrowly escaped avoiding serious injury. The ignition and subsequent continued burning of the hydrocarbon process fluid resulted in a large plume of unknown 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 over time. The CSB concluded that reporting of leading and lagging indicators to the relevant regulators would be an important driver for safety and health improvement of Chevron's refinery operation. As a result, the CSB issued a recommendation to Chevron USA, Inc., to report leading and lagging indicators to the relevant regulatory authorities, for both of its California refineries.¹

B. Response to the Recommendation

CUSA currently reports indicators for its Richmond refinery to Contra Costa Health Services, as required by the City of Richmond and the Contra Costa County Industrial Safety Ordinance. The newly adopted California Accidental Release Prevention Program (CalARP) Regulations will require all of California's covered facilities, which will include the CUSA Richmond refinery and El Segundo refinery, to report process safety indicators every year on June 30 beginning in 2019 to the California Governor's Office of Emergency Services (Cal OES) and the Unified Program Agency (UPA), or the local agency responsible for implementing the CalARP Program. Cal OES will make these public by posting them on their website. Finally, California adopted a new set of

¹ Chevron operates two refineries in California: the Richmond refinery in Richmond and El Segundo refinery in Martinez.

Recommendation Response Evaluation
U.S. Chemical Safety and Hazard Investigation Board
Office of Recommendations

state process safety management regulations that became effective on October 1, 2017.² These regulations require, among other things, that employers develop, implement, and maintain an effective program to track and document process safety performance indicators. Cal/OSHA will periodically conduct Program Quality Verification (PQV) inspections at covered facilities, including refineries, where the team will request and examine indicator data. CUSA will provide indicators to Cal/OSHA during these inspections when requested.

C. Status Change

As such, the Board voted to change the status of CSB Recommendation No. **2012-3-I-CA-UR02** to “**Open – Acceptable Response or Alternate Response.**” Once the CSB receives confirmation that CUSA has provided indicator data to Cal OES, the local UPA and Cal/OSHA, this recommendation can be evaluated for closure.

² See California’s Process Safety Management for Petroleum Refineries, New Section 5189.1 at <https://www.dir.ca.gov/oshsb/documents/Process-Safety-Management-for-Petroleum-Refineries-apprvd.txt> (accessed November 27, 2017).