



# News Release

FOR IMMEDIATE RELEASE

## **Chevron Investigation Identifies Causes of Richmond Refinery Fire**

*Company Will Implement System Improvements*

**RICHMOND, Calif., April 12, 2013** – Chevron U.S.A. Inc. today released a detailed investigation report into the causes of the August 6, 2012 leak and fire at the company’s Richmond, California refinery. The investigation concludes that the five-foot carbon steel component where the leak occurred failed due to thinning caused by sulfidation corrosion, which was accelerated by the low-silicon content of the failed component. Individual carbon steel piping components with low-silicon can, and here did, corrode at an accelerated rate not readily detectable by multiple corrosion monitoring locations.

“We have identified what went wrong and are taking steps to prevent a similar incident in the future,” said Nigel Hearne, general manager of the Richmond refinery. “The causes of the incident were multi-faceted. The refinery’s management and our entire workforce are implementing actions to address the issues underlying the August incident and as part of our commitment to continuous improvement.”

The investigation team included independent scientific and engineering experts, members of the United Steelworkers Union, and Chevron technical experts. The report identifies four causal factors of the incident:

- Measurements performed in 2002 that indicated a piping component in the crude oil processing unit was thinning were not appropriately documented in the inspection report to help guide future decisions.
- Information from the industry and other internal experts concerning the chemical process that caused the pipe to fail and potential ways to guard against it, including component-by-component inspections, was not disseminated effectively to those making decisions regarding inspections.

- Inspections during major maintenance performed in 2011 did not include every component subject to sulfidation corrosion.
- After the discovery of a leaking pipe before the fire, response teams did not recognize the risk of rupture and ignition.

The report concluded that enhanced component inspection – like the program now being implemented throughout Chevron U.S.A.’s refining network – would likely have alerted the refinery to the potential problem. Chevron is implementing actions that will address the underlying issues identified in the report and strengthen process safety, mechanical integrity and management oversight.

Specifically, the company is:

- Enhancing our inspection procedures. We’ve inspected every component in the unit where the fire occurred, and are inspecting every component throughout the refinery used in the same type of service. We are replacing every piping component as necessary based on the results of these inspections.
- Strengthening internal communications and oversight of mechanical integrity-related recommendations and inspection plans.
- Strengthening our reliability programs for piping and equipment and our process hazard analyses to ensure that they fully cover the potential damage mechanisms to those systems.
- Reviewing and improving our mechanical training programs for leaders, inspectors, operating groups and engineers.
- Implementing a new protocol for evaluating leaks and shutting down equipment.
- Reemphasizing our expectations for process safety performance and the importance of incorporating process safety into decision-making.

Chevron will continue to work cooperatively with government agencies that have been involved in looking into this incident. The complete investigation report is available online at [richmond.chevron.com](http://richmond.chevron.com). The company has completed repairs to the crude unit and expects to resume normal refinery operations in April.

###

Contact: Melissa Ritchie +1 510-242-4700, [mritchie@chevron.com](mailto:mritchie@chevron.com)