

2007.01 - CSB Investigation Report Refinery Explosion & Fire

PURPOSE

This Safety Notice brings to your attention the US Chemical Safety & Hazard Investigation Board (CSB) March 2007 Investigation Report on the explosion and fire at the BP Texas City Refinery. The C-NLOPB believes that many of the themes discussed in the report are relevant in the offshore petroleum industry and that we all must continually re-examine the culture of our industry and respective organizations.

BACKGROUND

The CSB report states, “On March 23, 2005, at 1:20 p.m., the BP Texas City Refinery suffered one of the worst industrial disasters in recent U.S. history. Explosions and fires killed 15 people and injured another 180, alarmed the community, and resulted in financial losses exceeding \$1.5 billion. The incident occurred during the startup of an isomerization¹ (ISOM) unit when a raffinate splitter tower² was overfilled; pressure relief devices opened, resulting in a flammable liquid geyser from a blow-down stack that was not equipped with a flare. The release of flammables led to an explosion and fire. All of the fatalities occurred in or near office trailers located close to the blow-down drum. A shelter-in-place order was issued that required 43,000 people to remain indoors. Houses were damaged as far away as three-quarters of a mile from the refinery.”

The report notes that the disaster was “caused by organizational and safety deficiencies at all levels of the corporation. Warning signs of a possible disaster were present for several years, but company officials did not intervene effectively to prevent it.” The report goes on to point out issues related to the regulation of the facility and the regulator that may have also contributed to the disaster. Most importantly, the CSB report provides a comprehensive review of root causes that links the incident to organizational and cultural issues at the corporate and regulatory level.

LEGISLATION

- *The Canada - Newfoundland Atlantic Accord Implementation Act Section 135.1*
- *The Canada – Newfoundland and Labrador Atlantic Accord Implementation (Newfoundland and Labrador) Act Section 131.1*

RECOMMENDED ACTION

The C-NLOPB strongly encourages all Operators to consider the U.S. Chemical Safety and Hazard Investigation Board Investigation Report into the BP Texas City Refinery Explosion & Fire and to assess implications upon their own operations, such as maintenance cutbacks, emphasis on injury metrics, defective or poorly designed controls and instrumentation, aging plant, supervisory controls etc. The report is available via the CSB web site at www.csb.gov/completed_investigations/docs/CSBFinalReportBP.pdf and a reference copy is available in the C-NLOPB library.

Questions regarding this Safety Notice may be directed to a C-NLOPB Safety Officer at the address shown below:

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