



Examining Organizational and Safety Culture Causes of the BP Texas City Refinery Explosion

Don Holmstrom, **Mark Kaszniak** and Cheryl MacKenzie
U.S. Chemical Safety and Hazard Investigation Board
mark.kasniak@csb.gov

Abstract

On March 23, 2005, a series of explosions and fires occurred at the BP Texas City refinery during the startup of an isomerization (ISOM) process unit. Fifteen workers were killed and about 180 others were injured. However, the catastrophic incident on March 23rd was not the only major incident at the Texas City refinery. As part of its investigation, CSB learned that over the past 32 years, the BP Texas City refinery has had 39 fatalities. This discovery prompted CSB to investigate the organizational and safety culture precursors that produced the multiple safety system deficiencies that lead to the ISOM incident and the history of major accidents and fatalities at this refinery.

This paper will examine the organizational and safety culture precursors rooted in the refinery's history. The paper will also show how these organizational issues extended beyond the ISOM unit and the Texas City refinery to the corporate oversight system of BP Global and to the 1999 merger between BP and Amoco Corporation, where the safety impacts of major organizational change were not effectively reviewed.

Disclaimer

This paper has been prepared for general informational purposes only. This paper represents the individual views of the authors and all references, conclusions or other statements regarding current on-going CSB investigations are preliminary in nature and limited to information that is already in the public domain. Furthermore, this paper is not a product of the Board and its contents have not been reviewed, endorsed, or approved as an official CSB document. For specific and accurate information on completed investigations, please refer to the final published investigation report [CSB, 2007] by going to the CSB website at www.csb.gov and clicking on the specific report desired under "Completed Investigations." To the extent this paper includes statements about the conclusions, findings, or recommendations of the Board, such statements come under the general prohibition in 42 U.S.C. §7412(r)(6)(G).