Potential Process Safety Management Lessons from the Bhopal Disaster

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ABSTRACT

This paper analyzes the Bhopal Disaster in order to present the depth of multiple root causes and PSM system failures that contributed to the ultimate consequences. The paper uses a hazard–barrier analysis approach to highlight how multiple safeguards can breakdown. The paper also focuses on the concept of hidden common causes, and attempts to draw relevant analogies that might exist in many chemical process facilities. The Bhopal event is examined using a qualitative fault tree to demonstrate the potential PSM program element weaknesses.