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Prevention of Catastrophic Incidents in Port and Hazardous Substance Storage Terminals by Implementation of Process Safety Management

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Abstract: *It has been observed worldwide that process safety management system is implemented in chemical process industries only. The nature and scale of risk associated with the large-scale and concentrated storage of bulk hazardous substances is ignored in earlier years. But incidents such as Buncefield in the UK in 2005 and the Caribbean Petroleum Refining explosion in 2009 illustrate the catastrophic consequences of a loss of containment and further damage to people, environment, asset and reputation of the organization and country. Occupational Safety and Health Administration's (OSHA) Process Safety Management (PSM) requirements are often exposed to this "check box" mentality. Process Safety Management (PSM) comprises the proactive identification, evaluation and prevention of loss of primary containment events in a chemical process due to any failure(s) in the Process, Procedure, Equipment, or Components. Simply put, it deals with the Loss of Primary Containment (LOPC) of Highly Hazardous Chemicals (HHC).*

Keywords: Safety management

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