SAFE AUTOMATION GAP

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ABSTRACT

Industry is rapidly approaching the 10th anniversary of the OSHA Process Safety Management regulation. This regulation requires the use of generally accepted good engineering practices as demonstrated by a series of industrial standards and guidelines. The OSHA PSM program was intended to make the chemical process industry safer, but catastrophic incidents continue to occur in spite of PSM implementation.

A significant portion of the safeguards installed to reduce the frequency of catastrophic incidents relies on automation, including process control, operator alarms and responses, safety instrumented systems, emergency isolation and venting, and fire and gas systems. This paper will address significant safe automation gaps, which have been identified during audits of chemical, petrochemical, and refining units. These gaps represent missed opportunities for improving and maintaining the safe operation of these units.