See Risk Clearly

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Keywords: risk analysis, assessment, human factors, automation

Abstract

Decision makers need reproducible, believable results to support investment decisions. A wide variety of hazard identification and risk analysis methods are available to support process safety decisions. All methods require knowledge in the fundamentals of process design and experience in the process operation under consideration. Every method has uncertainty and no method yields any better reflection of the risk than the level of engagement that the analyst or team has in the assessment. Traditional approaches work well on processes with a long history of operation, but are difficult to apply in the rapidly evolving environment of modern manufacturing.

This paper discusses the challenges that the risk analysis process is facing in today’s work environment. These challenges include understanding that the calculations are only a model for process safety events that harm people, events with low calculated likelihood can still occur, and management systems with metrics are critical to sustain the performance of the identified protection layers. These challenges are met by adapting current tools and work processes for recording process data to also collect data on abnormal operation and protection layer failure.