Process Safety Management: ProSmart

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Abstract

Convinced of the importance of good process safety management (PSM), the Center for Chemical Process Safety (CCPS) began a project in 1993 to measure the effectiveness of management systems. The ultimate objective was to provide management with the tools for assessing the health of PSM systems on a real-time basis. By continuously, or frequently, measuring the performance of the elements in a PSM system, flaws can be detected and corrected promptly before an accident occurs. Early work defined the twelve elements of a process safety management system. In the project's remaining phase, CCPS, in partnership with Concord Associates of Knoxville, Tennessee, has created a software program, which utilizes key, measurable variables of performance to develop an index of performance. The final product, ProSmart, utilizes readings of measurable variables for PSM performance, updated on a schedule keyed to their change characteristics. This contrasts with an audit evaluation, which captures a snapshot of the PSM performance at a particular instant in time. ProSmart defines the data to be collected, provides the computer interface, and calculates a numerical value, or index, of PSM system performance.