Leveraging PHA and LOPA Data for Operating Limit Tables

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ABSTRACT

Safe Operating Limit Tables, or Operating Limit Tables, are a key piece of process safety information (PSI) and help ensure the operators have the information required to keep a process running safely and respond correctly in the event of a deviation. OSHA 1910.119 covers specific requirements for which data these Operating Limit documents need to include. PSM facilities are finding, through agency inspections and audits, that their existing operating limit tables are not in compliance with the standards. Common trouble spots include the consequence of a deviation and the response expected from automated safety functions in addition to the operator. The Process Hazard Analysis (PHA) and Layer of Protection Analysis (LOPA) studies can provide important information to be included in the Operating Limit documents. Process information such as normal operating conditions, safe upper and lower limits, consequences of deviation, automated safety functions, and operator response to alarms that are documented within the PHA and LOPA studies, need to be included in the Operating Limit documentation. As PSM-regulated facilities struggle with the work load of maintaining PSI, identifying ways to maintain multiple documents simultaneously, and maximize resources already dedicated to the PHA and LOPA activities, is becoming crucial to effectively manage change. This paper will highlight how key information included in the PHA and LOPA documentation can be leveraged to more efficiently manage Operating Limit table creation and maintenance. The author will also explore how triggers can be added to the PHA and LOPA process to initiate Operating Limit table updates.