Benefits of Automating Process Safety Management (PSM) and Integrating with Operating Procedures & Drawings

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ABSTRACT

Many corporations currently make production and compliance decisions using paper-based systems, Excel spreadsheets and Access databases. The complexity of tackling issues such as Management of Change (MOC) workflow and ensuring that corrective actions and pre-startup safety reviews occur in a timely manner may present a formidable challenge in a process plant. While Excel spreadsheets and Access databases are standard desktop solutions, it is difficult to get information systems (IS) personnel to support these custom applications due to poor documentation. There are also issues to address such as poor performance when there is a lot of data or too many users, lack of security, high costs for maintenance, and the risk that intellectual property will be lost when personnel turnover occurs.

While commercial off-the-shelf (COTS) software may cost more up front, user’s can benefit from the robustness of the application, its ability to deal with large amounts of data, and better likelihood of IS support. The cost of COTS software is usually 2-3 times less over the 3-5 year lifecycle than custom applications. A lot of tangible benefits can be realized by integrating in information files (i.e. Standard Operating Procedures (SOPs), Mechanical Integrity Procedures, Redlines). Upgrading SOPs is both expensive and time consuming. Some studies have estimated that it may take as much as 4 hours per MOC to assemble all the associated information using a paper-based system approach. By using electronic workflow management, document management and drawing solutions, there are numerous cost and time benefits that typically result in a process plant.

This presentation will examine the basic workflow of an MOC process using paper, spreadsheets and COTS solutions, and the benefits of going integrating with document management and workflow solutions.