MARY KAY O'CONNOR PROCESS SAFETY CENTER
TEXAS A&M ENGINEERING EXPERIMENT STATION

20th Annual International Symposium
October 24-26, 2017 • College Station, Texas

Lowering Capital Costs when Evaluating Relief Systems - A Collaborative Approach

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Abstract

Continued uncertainty in future oil and gas prices has increased the sensitivity around energy related developments, leading to elevated levels of financial scrutiny. This is making owner-operators and Engineering, Procurement, and Construction (EPC) companies continue to look for smart options to increase their overall project delivery performance in order to maximize the Net Present Value (NPV).

Lowering cost of design calls for a more collaborative approach to ensure an effective and prudent design of relief systems. The design of relief systems requires much more than just the proper sizing of the relief devices. During the concept phase of either Greenfield or Brownfield projects, assessing the basis for major relief systems and making clear recommendations to reduce the risks associated with each system has helped companies realize substantial safety and economic benefits.

This presentation will give a typical breakdown of the collaborative workflow process for each of the entities involved in the project. Four distinct work activities are typically identified for such a project – development of preliminary overpressure protection, engineering design of relief systems, validation of the design, and validation of as-built documentation. At the end of each stage, the output from the independent analysis is compared with the contractor's work and updates are performed before continuing to the next stage. This presentation will also give an overview of these stages, discuss the various steps, and the value-added benefit for each stage of the project.