Lessons Learned from Real World Application of the Bow-tie Method

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ABSTRACT

The benefits of using bow-tie diagrams for risk management have been realized by organizations world-wide. They provide a readily understandable visualization of the relationships between the causes of business upsets, the escalation of such events to a range of possible outcomes, the controls preventing the events from occurring and the preparedness measures in place to limit the consequences.

More importantly, the prevention and mitigating measures are linked to tasks, procedures, responsible individuals and competencies. This demonstrates the crucial connection between risk controls (whether hardware, procedural or competence-based) and the management system for assuring their ongoing effectiveness.

This paper draws on Risktec’s unparalleled experience in applying bow-tie methodology in the process industries. It summarizes the history of the bow-tie method, gives an overview of how to apply it and describes, in detail, its practical uses and benefits as well as potential pitfalls and guidelines for success.