Abstract

Over the years, there have been many technological advancements in the industry and a huge growth in terms of operating capabilities. Being among the fastest growing organisations, managing enterprise wide risk effectively has been a very crucial success factor for Reliance. It is also recognized that identification and assessment of process safety risks is the cornerstone to sustain growth and to ensure worker and public safety.

In the area of process safety, there are well-defined and established risk analysis techniques ranging from very simple to quite rigorous ones depending on criticality and complexity of application. However selection and application of appropriate technique is understood by a small section of workforce and often left to mere judgement of analysts. Hence they are often mistaken for mere theory, far from the reality. It is onerous task upon risk analysts to translate these analyses in the right sense to business.

For Reliance, starting with Hazop studies, moving on to elaborate Process Hazard Analysis, LOPA and QRA has been a gradual journey. While traditional methodologies are applied throughout, there is a certain level of customisation done as per organizational needs. All such efforts are aimed at continuous improvement in the way risks are identified and quality of analysis.

Group wide requirements and supporting ground rules have been defined to effectively utilize these methodologies in a consistent manner across various locations. Customisation also means applying more rigour in the analyses with less subjectivity, pre-defining criteria for choosing scope for quantitative analyses or the way risks are estimated. These ground rules were developed for both qualitative and quantitative techniques like What-if/ Hazop, Consequence analysis, LOPA, MAR/ QRA. However these ground rules are aligned to current group strategy and can potentially undergo review in future and any required changes made.

The paper discusses the evolution process in the area of Risk Assessment, challenges faced in realizing the actual benefits out of the assessments and how certain alterations in assessment methodology have helped in continual improvement of process safety and risk management.