

## Criticality analysis using risk assessment-based maintenance of a petrochemical company

### ABSTRACT

To improve maintenance management many evaluations are used to assess the failure risk of hazards in industries. The aim of this study is critical analysis using the risk-based maintenance technique of petrochemical industries. This research is applied in the Fajr Petrochemical Company in southwestern Iran. The assets based on the risk output are prioritized. The criticality analysis showed that 11 failures out of 22 identified failures were at the semi-critical and 11 were at non-critical levels of risk. By this research we can reduce the maintenance cost and prioritize the failures based on their HSE effects and consequence factors.

**Keyword:** Consequence factors; Failure; Maintenance; Petzone; Risk management