

## Fire Safety Study

### THE ISSUE

Facilities handling flammable substances face significant risks from various fire and explosion events. If the facility's fire systems are not suitable for managing the hazards, a fire could quickly get out of control and escalate, potentially resulting in a catastrophe.



### THE APPROACH

A Fire Safety Study is an analysis that considers the specific hazards present at a facility and identifies the requirements of the fire systems to manage those hazards properly. This ensures that the fire systems are suitable for the specific hazards present, an outcome that is not always achieved by the application of generalised codes and standards alone. The consequences of the specific fire scenarios are considered and an assessment made of the fire protection systems necessary to manage that hazard. This is then compared with the existing or proposed fire systems to identify any gaps that may exist.



### THE OUTCOME

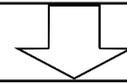
A Fire Safety Study provides the operator of a facility with the assurance that the fire systems in place are suitable to manage the hazards present. Alternatively, should the study identify deficiencies in the fire systems, clear guidance is provided as to the rectification measures needed.



#### Identification of Fire Hazards

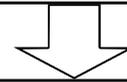
Identify credible fire scenarios, considering:

- Flammable and combustible materials present
- Potential fire and explosion events
- Internal & external threats



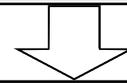
#### Consequence Assessment

The impacts of the scenarios are assessed to determine the consequence distances to specific impact levels. These criteria are typically based on potential harm to personnel, damage to equipment or structures and possible escalation events.



#### Fire Systems' Performance Requirements

The potential impacts of the fire scenarios are reviewed to determine the performance requirements that the fire systems must meet to manage the scenario.



#### Assessment of Adequacy

- Comparison of the performance requirements against the existing / proposed fire systems
- Recommendations made to address deficiencies identified

