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Development and Implementation of Pre-Incident Plan – Our Experiences

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ABSTRACT

When conducting a safety assessment for a hazardous facility, there is a requirement to identify the nature and scale of potential hazards as well as their range of impacts to personnel, the environment, and to the community. Analysis is undertaken to determine that there are sufficient controls (or safeguards) in place to prevent and recover from such major incidents. Whilst the focus is upon preventative controls, failures can and do occur, resulting in an undesired event. Standing as the last line of defence to mitigate the impact of a major incident, effective emergency response planning and pre-incident plans provide clear and justified guidance against such events.

Importantly, there is a need to understand the potential consequences from both credible and escalated events. Consequence analysis allows for the establishment of hazard zones to understand whether safe access to fixed firefighting equipment is possible and provides guidance on the timing, and execution, communication requirements, and available resources for critical response activities undertaken to mitigate an undesired event. Having well developed and tested pre-incident plans ensures that the above can be achieved. More importantly, response requirements can be communicated to the entire site response organization and first responders, ensuring a consistent and effective response to any major incident.

Our paper presents experiences in developing pre-incident plans and their application in the field for overseas major hazard operators. Insights are also shared for operators to consider when developing their own pre-incident plans and associated training.

KEY WORDS

Key words include emergency response plan, pre-incident plan, undesired event, major incident, and consequences.

BIOGRAPHY

Stuart Chia is a chemical and environmental engineer with almost 30 years' experience in the process safety, risk management and environmental engineering field. He has been a process safety specialist and risk lead for energy and chemical processing clients including BP, Hess, Shell, Conoco and PTT. Stuart has also conducted high level business and project risk studies for major energy developments and critical infrastructure projects. He has conducted feasibility, risk and safety studies for renewable energy developments in Australia and New Zealand. With Sherpa, Stuart is an active member of the IChemE Safety Centre and contributed to various process safety initiatives.

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