

Systems Improvements
High Reliability level

Safety Culture Review

Management Briefings
& Presentations

Professor Andrew Hopkins (ANU) is a world renowned expert in the analysis of the causes of major industrial accidents and he has assisted many organizations in improving and developing systems of prevention.

- Expert witness at the Royal Commission into the Longford Gas plant fire in 1998
- Consultant to the US Chemical Safety Board investigation of the Texas City accident
- Recipient of the 2008 EPSC Process Safety Award



Presentations by Andrew Hopkins

Why BP failed to learn the lessons from elsewhere: the Texas City Refinery fire.

An explosion at BP's Texas City Refinery in March 2005 cost the lives of 15 people and injured nearly 200 more. BP had failed to learn the lesson of earlier incidents, such as the Esso Longford Gas Plant explosion, that major hazards are quite distinct from the hazards that give rise to most occupational injuries and must be managed quite differently. This presentation explores the reasons for this failure to learn, focusing on the company's organizational structure and its incentive systems. 50 MINUTES.

Lessons from Longford

The Esso Longford Gas Plant explosion killed two men and injured others. The company attributed the accident to errors by operators, but this presentation shows how those errors were induced by a series of organizational factors, among them, inadequate hazard identification by the company, the failure of the incident reporting system, which was focused exclusively on lost time injuries, poor auditing, chronic alarm flooding in the control room, inadequate change management, cost cutting, and the absence of engineers on site. The presentation builds a causal diagram (an accimap), step by step, showing how these various factors inter-related. 60 MINUTES.

Becoming a mindful organisation

This presentation discusses "cultures of denial" and ways they prevent organizations from picking up the warning signs that are always present prior to accidents. It proposes that such cultures must be overcome if organizations are to become truly "mindful". It emphasizes the need for reporting systems that will pick indicators of danger and it stresses that management must carefully consider the sorts of things that need to be reported and find ways to encourage such reports. It discusses ways in which management can be made more effectively accountable for the way they respond to reports. 40 MINUTES.

Mindful leadership

This presentation pinpoints the role of leaders in ensuring safety. It argues that they must be mindful of the way in which things can go wrong and it describes what mindful leaders do to encourage safe operation. The presentation uses a case study from the mining industry in Queensland. This can then serve as the basis for small group discussion. 45 MINUTES, PLUS DISCUSSION TIME OF 15-30 MINUTES.

What are we to make of Safe Behaviour programs?

This presentation provides a critical look at the assumptions which underlie Safe Behaviour programs and identifies some of their limitations. Unsafe behaviour is merely the last link in a causal chain and not necessarily the most effective link to focus on, for the purposes of accident prevention. They also miss critically important unsafe behaviour, such as attempts by workers to re-start processes that have been temporarily interrupted. Conventional safe behaviour programs aimed at front line workers are also of no use in preventing accidents in which the behaviour of front line workers is not involved. Given that it is the behaviour of management which is most critical in creating a culture of safety in any organization, behavioural safety observations are likely to have their greatest impact if directed upwards, at managers. 50 MINUTES.

A critique of "acceptable risk"

Risk management is sometimes seen as a matter of driving risk down to some predetermined numerical level that is regarded as acceptable or tolerable. This presentation is critical of this view. Among the points made are the following:

- Risk is not the same as rate; rates are measurable, risks often are not.
- The risk framework assumes accidents occur by chance and are therefore inevitable; the prevention framework assumes they are caused and can therefore be prevented.
- Defining acceptable levels of risk in terms of the value of life is enormously problematic. 50 MINUTES.

For more information on Professor Hopkins' consulting services and presentations, please contact FutureMedia Pty Ltd.

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