## President's Message

It is unfortunate that the investigation reports about most incidents in the oil, chemical and process industries are never made public. We have to speculate as to the root causes of these incidents. However there are organisations, such as NASA, that are so highly visible that any



incident is public knowledge. Their incident investigation reports are in the public domain<sup>1</sup>. In our industries in the USA, incidents that are considered to be of sufficient public concern are investigated by the Chemical Safety Board and its reports are placed in the public domain<sup>2</sup>.

Even when the individual reports are not made public the root causes are. The US EPA have summarised the root causes they and OSHA have seen in their investigations<sup>3</sup>. Recurring causes of these accidents include inadequate process hazard analysis, use of inappropriate or poorly-designed equipment and inadequate indication of process conditions. Of particular note, installation of emission or pollution control equipment has preceded several significant accidents, highlighting the need for stronger systems for management of change. Other accidents have been preceded by a series of similar accidents, near-misses, or low-level failures, pointing to the need for more attention to be paid to lessons that can be learned from such incidents. This serves to demonstrate the need for a more thorough company investigation of near-misses and low-level failures. The effective follow ups from these investigations are good ways of avoiding major accidents.

One common factor is present in all these reports - Process safety incidents are the result of management system failures<sup>4</sup>.

Singapore is not immune to this failure.

Recent reports on incidents in Singapore imply the same conclusion and, I suspect, the Nicoll Highway enquiry will reach the same conclusion.

Singapore has recognised that change is necessary. The recent publication of SS 506 Occupational Health & Safety Management System (OHSMS) by SPRING Singapore sets out requirements for a management process. The recent announcement by Dr Ng Eng Hen, Minister for Manpower<sup>5</sup>, regarding the Workplace Safety and Health Act and the management of chemicals implies that effective management systems will be required in the future. Factory occupiers will be required to conduct comprehensive risk assessments and then to implement a risk management plan that will eliminate or mitigate the risks that have been identified.

This means that companies must have competent people to perform the risk assessments and to determine the most practicable risk management solutions to protect the health and safety of their employees and 3rd parties.

These activities are perfectly aligned with the objectives of the SLP. We intend to keep providing you, our members, with the processes and the knowledge to be these competent professionals. To this end, we have organized and will continue to organize relevant training programs for you and other SHE professionals. If you feel that a particular training course is needed, please let us know.

For example see the reports on the Columbia and Challenger disasters at http://www.nasa.gov/columbia/home/ and http://science.ksc.nasa.gov/shuttle/missions/ 51-l/docs/rogers-commission/table-of-contents.html respectively.

<sup>&</sup>lt;sup>2</sup> See http://www.csb.gov/

<sup>&</sup>lt;sup>3</sup> James C. Belke, International Conference and Workshop on Reliability and Risk Management, September 15-18, 1998

<sup>&</sup>lt;sup>4</sup> Guidelines for Technical Management of Chemical Process Safety, CCPS

 $<sup>^{5}\ \</sup> http://www.mom.gov.sg/MOM/CDA/0,1858,3669------7442----,00.html$