

Two-Day Course on Managing Risks associated with Plant Operations and Maintenance in the Process Industries

Dr. Sam Mannan concluded by sharing this food for thought:

"Be a leader, and do not assume others have already identified the hazards around you"

and

"Do not leave everything to the emergency response team"

Disastrous consequences have resulted from failure to manage the risks associated with plant operations and maintenance in the process industries. Responsible organizations need to safeguard their personnel, protect the environment and maintain their assets by adopting industry best practices. Anything less is undesirable. Many lessons can be learnt from catastrophic incidents that happened. Or have we really learnt?

The SLP organized the 2-day training course "Managing Risks Associated with Plant Operations and Maintenance in the Process Industries" on 4 and 5 January 2012 at the Singapore Polytechnic Graduates Guild to highlight the importance of managing these risks.

Dr. Sam Mannan, current Regents Professor in the Chemical Engineering Department at Texas A&M University and Director of the Mary Kay O'Connor Process Safety Center at the Texas Engineering Experiment Station shared his thoughts, practical experiences, insights, and views on the challenges face in these operations and maintenance activities. He is the co-author of the "Guidelines for Safe Process Operations and Maintenance" published by the Center for Chemical Process Safety, American Institute of Chemical Engineers.

During training course, wide-ranging topics were covered:

- Process Safety Management overview;
- Role of Operations and Maintenance in Process Safety Management;
- Overview of hazard identification techniques;
- Plant life-cycle and hazard identification;
- Process safety and plant design;
- Designing for inherent safety;
- Controlling of hazards to reduce risks;
- Process safety during plant construction;
- Process safety during pre-startup and plant commissioning activities;
- Process safety during plant startup;
- Managing the risks associated with operations and maintenance activities;
- Routine/ Non-routine operations;
- Management of change;
- Incident investigation;
- Lessons learned communication;
- Plant shutdown and decommissioning activities;
- Plant shutdown and decommissioning activities; and
- Incident example

Twenty-four EHS professionals from chemicals, pharmaceuticals and oil and gas industries participated in the training course. They brought diversified viewpoints, experiences and perspectives to the classroom. There were great opportunities to network during the tea and lunch breaks.

The course was structured in a way that allowed participants to walk through the issues, starting from the risks that have to be addressed during typical operations and maintenance as well as shutdown and startup activities.

Case studies and unpublicized videos with Dr. Mannan's involvement in the Challenger space shuttle accident investigation got the attention of participants. Most participants were interested to conduct case studies that were not available in the public domain.

SLP President CP Tay presented the Certificate of Completion to all the participants.

Written by Jacob Soh



*Picture on top:
Prof Reginald Tan from NUS sharing a comment with the participants during the training session.*

*Picture on the right:
Participants from broad-ranging industries with Dr Sam Mannan.*

