

# Risk Based Process Safety and Safety Culture

Below is an announcement on a Technical Talk by William Bradshaw on the above subject. Readers will note that the start time is 4.00pm. It is different from our normal schedule. We are doing this as an experiment to see it suits our members better.

## Risk Based Process Safety and Safety Culture

By: William M. Bradshaw

Acting General Manager - South Pacific Region ABS Consulting Inc.

<b>Date:</b>	<b>Thursday, 25 November 2010</b>
<b>Time:</b>	<b>1600 - 1730 hrs</b>
<b>Venue:</b>	<b>S'pore Polytechnic Graduatesí Guild 1010 Dover Rd Gate 4, Singapore 139658</b>
<b>Cost:</b>	<b>Free for SLP Members and 2 Nominees from each SLP Corporate Member Non members will be charged \$40.00 per person</b>
<b>Closing Date:</b>	<b>18 November 2010</b>

### Synopsis

Risk Based Process Safety (RBPS) was developed by the American Institute of Chemical Engineers (AIChE) Center for Chemical Process Safety (CCPS) and has been described by the AIChE as the framework for the next generation of process safety management systems. It is based on the simple premise that process safety excellence is supported by four key pillars:

- Commit to process safety
- Understand hazards and risk
- Manage risk
- Learn from experience

These pillars are supported by a total of 20 RBPS elements, many of which are applicable to all facilities in the process industries. This new framework for process safety builds upon the original ideas published by the CCPS in the late 1980s; integrates industry lessons learned over the intervening years; applies the management system principles of plan, do, check, act; and organizes them in a way that will be useful to all organizations - even those with relatively lower hazard activities - throughout the facility's life cycle. It also expands the CCPS's original focus on management accountability to include the broader topic of safety culture, which based on analysis of several major process safety incidents that have occurred over the past 5 years, has been termed by many to be the "root cause of the decade."

The presentation will conclude with a discussion of research that ABS Consulting has done over the past several years for the American Institute of Chemical Engineers (AIChE) to identify cultural aspects that are common to a number of companies/facilities that (1) have a track record of exemplary process safety performance and (2) focus on establishing a common culture as a key part of promoting process safety performance. This research, which was spawned from a paper written by ABS Consulting titled *Essential Elements of a Sound Safety Culture*, identified 12 essential features of a sound process safety culture.

### About the Speaker

*William M. (Bill) Bradshaw* is Acting General Manager for ABS Consulting's South Pacific Region. He has more than 30 years of experience in chemical and nuclear industries. He led the recently completed effort to write the book *Risk Based Process Safety* for the American Institute of Chemical Engineers Center for Chemical Process Safety (CCPS). The CCPS has stated that this book will chart the future direction of process safety management for the next 10 or more years. He has also coauthored the soon to be published CCPS book titled *Conduct of Operations and Operational Discipline*, and has contributed to CCPS books titled *Guidelines for Mechanical Integrity Systems*, *Guidelines for Management of Change for Process Safety*, and *Layer of Protection Analysis: Simplified Process Risk Assessment*. He is the primary instructor for ABS Consulting's courses on process safety management and management of change, and also instructs courses on auditing, process hazard analysis, mechanical integrity, layer of protection analysis, and risk-based process safety.

Before joining ABS Consulting in 1998, Bill Bradshaw served in a variety of plant and business positions with ICI Acrylics, Inc., including plant maintenance manager, production superintendent, operations manager, and North American business engineering and technology manager. His other assignments have included technology development positions at the Oak Ridge Gaseous Diffusion Plant, Y-12 National Security Complex, and Oak Ridge National Laboratory, and project/process engineering assignments while serving in the U.S. Army. He has extensive experience with processes involving highly hazardous chemicals, including nerve agent and a variety of nonlethal chemical weapons and explosives, UF<sub>6</sub>, and flammable liquids.

Bill Bradshaw holds a B.E. degree in Chemical Engineering from Vanderbilt University and a M.S. degree in Engineering Mechanics from the University of Tennessee.

As seats are limited, registration will be on a first-come-first-serve basis.

Interested members are kindly requested to reply to Penny Pan at [secretariat@slp.org.sg](mailto:secretariat@slp.org.sg) **before 18 November 2010**.