

## **ABI-4010 – CERTIFICATE IN PROCESS SAFETY MANAGEMENT ©**



## COURSE OVERVIEW

This course introduces the PSM structure – written program, roles and responsibilities, implementation including training, record keeping and auditing. It will explore all of the 14 key elements of a comprehensive PSM program and how the overall architecture applies to each. Links between the elements and integration with existing and sometimes overlapping current Company policies, quality and reliability programs are also discussed.

It provides an in-depth study of each PSM element and the specific guidelines for integrating PSM element requirements into other corporate programs and evaluating program compliance through the implementation phase. During the course you will learn how to expand your PSM program to include the RBPS – RISK BASED PROCESS SAFETY – elements. The course will also cover every aspect of auditing from gathering data via records and interviews, keeping notes, report writing and making recommendations. Using all rules and methods taught in class, the second day is a workshop to audit actual PSM practices in a real time setting. It will also teach students how to lead investigations and root cause analysis using various techniques such as CAUSAL FACTOR CHARTING, FAULT TREE ANALYSIS AND ROOT CAUSE CHARTS.

This is a “how to” course designed to teach skills, an optional part of the course can include 1 to 2 hours off software instruction. It prepares students to evaluate existing practices versus recognized codes and standards enabling them to efficiently improve or develop along with implementing mechanical integrity (NI) program. Topics also include how to merge MI programs with a reliability program.

Finally the course teaches students how to write effective step-by-step operating procedures and how to develop troubleshooting guides from PHA documentation. The first day of the course is for both operations and maintenance personnel. The second day is mainly for operators – as they typically write more in-depth troubleshooting guides.

Case studies and exercises are used throughout the course to illustrate interpretations of the requirements and demonstrate ways to develop an effective PSM program, including several video based case studies.

Delegates would learn how to interpret the performance based requirements of EPA risk management standards as well as learning about related industry standards.

**PRE-REQUISITE** - none

**DURATION** - 1 week

## TARGET AUDIENCE

- HSE PROFESSIONALS – COMPLIANCE AUDITORS
- OPERATIONS AND SAFETY MANAGERS/PROCESS/SAFETY/MECHANICAL ENGINEERS
- ENVIRONMENTAL MANAGEMENT AND TECHNICIANS
- PSM IMPLEMENTATION TEAM MEMBERS/OPERATIONS AND MAINTENANCE STAFF
- PROCESS RELIABILITY STAFF – QUALITY CONTROL MANAGERS AND STAFF
- PROCESS QUALITY CONTROL / ASSURANCE STAFF
- PSM CO-ORDINATORS AND QUALITY COMPLIANCE AUDIT

## COURSE CONTENT

### PSM 1

- Employee participation
- Process safety information
- Operating procedures
- Hot work permit/safe work practices
- Training
- Contractors
- Process hazard analysis
- Management of change
- Mechanical integrity
- Pre startup safety review
- Emergency planning and response
- Incident investigation/root cause analysis
- Compliance auditing
- Trade secrets
- Managing commitment and accountability
- Auditing for process and risk management plan
- Writing effective operating and maintenance procedures

### PSM 2

A practical application which involves writing a PSM Implementation Plan for a chosen process taking into consideration the 14 elements of PSM

## EXAM STRUCTURE

**PSM 1** – for this element students will be required to sit a confirmation test and/or e-portfolio project

**PSM 2 – (project) – this project needs to be submitted no later than 3 weeks after the exam date**