

PD702 Process Safety and Risk Management

Day One

- General
 - Introductions
 - Rules of Conduct
 - Teaching times—start/stop
 - Description of the work book and how it is to be used
- Background and History (demonstrating need for) PSM
 - Discussion of several significant PSM related accidents
 - Role that a Mechanical Engineer (or other engineer) could/should have played in accident prevention
 - Break-out/Workshop
- OSHA’s 1910.119 Regulatory requirements
 - OSHA’s 14 Key PSM Elements
 - Break-out/Workshop
- Open Discussion and Clarification

Day Two

- EPA’s RMP (Process Safety) Regulation
 - Comparison of EPA’s and OSHA’s PSM regulatory requirements
- CCPS’s 20 Element Risk Based Process Safety Approach
 - Comparison of CCPS 20 Element approach to OSHA 14 Key PSM Elements
 - Discussion as to:
 - Relationship with regulations
 - “Real World” applicability
 - Adaptability to various businesses (depending on class make-up and experiences)
- Benefits of Process Safety Management Systems
 - Break-out/Workshop
- Risk
 - Understanding Risk (what it is and is not)
 - Characterizing Risk (display and communication means)
 - Managing Risk
- Open Discussion and Clarification

Day Three

- Tools and “how-to’s” for Implementing a Good PSM Program

- PHA (and PHA Revalidation) Methodologies
 - Checklists
 - What if?
 - What if?/Checklist
 - Fault Tree Analysis
 - HAZOP
- Siting: Protection of people in buildings
- “Other” Considerations
 - Human Factors
 - Incident Investigations
 - “Probability/Likelihood” of occurrence
 - Security Risks and how they differ from Process Safety Risk Management
- The Mechanical Engineer’s (and other engineer’s) Process Safety and Risk Management roles at different levels in the organization and for different functions/responsibilities
 - Breakout/Workshop & discussion
- Building a PSM Plan for your Company
 - Defining and documenting risk tolerance
 - Auditing PSM programs
- Resources available
- Open Discussion
- Dismissal