



Applied Training

FSE220: Introduction to Pump Overpressure Protection

Duration: 1 Day

Time: 8:00 am – 4:00 pm UTC -4

Date: See online store

Location: Microsoft Teams

Cost: \$850 USD / Student



Course Outline

Focused on safeguarding pumps / piping against pump deadheading overpressure hazards, this course covers:

- Introduction to pump overpressure protection principles & unit operation
- Prescriptive codes & standards (API 521, ASME Section XIII, PART 13 (UG-140) Requirements) protecting piping with instrumentation in lieu of a Relief Valve
- Overpressure hazard analysis & failure modes
- Safety Function Definitions – What, When and How
- Applying IEC 61511: SIS design requirements for over pressure protection
- Applying ISA84.91.03: LOPA credited IPL design requirements for high-level alarms, BPCS Level Controls, etc.
- Process Safety Time / IPL Response Time
- Group exercise – LOPA on positive displacement pump overpressure event
- SIL verification calculations / SRS / C&E diagrams / test plans
- O&M requirements and maintenance bypass protocols

Instructor – Mike Scott – PE, CFSE

CEO of aeShield which has developed a patented digital process / functional safety lifecycle enterprise software offering deployed in 283+ facilities across 42 countries. He has over 30 years of process / functional safety and I&C experience including risk analysis, safety instrumented systems and control systems engineering, where he performed / implemented conceptual design, detailed design, configuration, and startup / commissioning exercises for the process industry.

- Co-Chairman of the ISA S84 Committee
- IEC 61511 committee member
- Granted 7 patents on safety lifecycle tools and implementation
- ISA Fellow