



◀ Layer of Protection Analysis

Time: 1st Day - 8:30am to 4:30pm
2nd Day - 8:30am to 3:30pm

CEUs: 1.4

Audience: Process Safety, Process Engineering, Operations, and Instrumentation and Electrical.

Course Description: This course discusses the fundamentals of Layer of Protection Analysis, including the risk criteria, key work process elements, and methodology options. The course presents a series of examples in a workshop format to illustrate the methodology.

1st Day

- Understand Process Risk
- Risk Criteria – how low is low enough?
- Layer of Protection Analysis (LOPA) Overview
- Protection Layers
- Core Attributes
- Establishing H&RA Criteria
- Initiating Causes
- Enabling Events and Frequency Modifiers
- Local Safety Equipment
- Supervisory Controls
- Operator Response
- Safety Instrumented Systems (SIS)
- Secondary Consequences when Safeguards Function Properly

2nd Day

- Multiple LOPA Workshop Examples