

Layer of Protection Analysis and Safety

C200 Classroom

DAY 1: 8:00 A.M. TO 5:00 P.M.

- Fundamentals of Risk Judgment
 - definitions
- Relationship of Regulations and Standards
 - History of LOPA
 - Relationship of qualitative and quantitative risk judgment
- Overview of LOPA
 - What is LOPA?
 - How does LOPA work?
 - Examples of industry variations on LOPA
- Scenario Development
 - Starting with hazard evaluations
 - Design evaluations
 - Incidents
- Consequences
 - Limiting definitions
 - Consequence categories
- Initiating Events
 - Enabling conditions
 - Frequency categories
- Independent Protection Layers: definitions, rules and examples
- Calculations
 - Basics of worksheet calculations
 - Workshop: Scenario evaluations

DAY 2: 8:00 A.M. TO 3:00 P.M.

- Case Studies and Workshop: Pulling it all together
- Risk Tolerance Criteria
 - Examples
 - Development and implementation
 - Dealing with liability concerns
- Special Applications; facility siting and safety interlocks with workshops