

Risk Tolerance Criteria for Process Safety

Establishing appropriate risk tolerance criteria is an important decision for companies. This course provides guidelines for setting criteria.

Process safety decisions must be made with reference to risk tolerance criteria. Increasingly, risk analysis methods and codes, standards and regulations around the world are moving towards the use of numerical criteria, for example, with Layers of Protection Analysis (LOPA) and standards for safety instrumented systems such as IEC 61511 / ISA 84. Various issues must be addressed if such criteria are to be set correctly and used meaningfully.

This training course covers the issues that must be addressed in setting risk tolerance criteria and the pitfalls that can be encountered in using them. Participants are taught a procedure to use in setting criteria for their process safety studies.

Objective:

Be able to set numerical risk tolerance criteria and use them with risk analysis methods such as Layers of Protection Analysis (LOPA) and to comply with standards such as IEC 61511 and ISA 84 for safety instrumented systems.

Target Audience:

Facility personnel who are responsible for establishing risk tolerance criteria for a company and personnel involved in conducting or using studies that employ them.

Duration:

One day, 0.7 CEUs awarded

Course Topics:

- Risk to people
- ALARP principle
- Foundation for criteria
 - Receptors
 - Consequence endpoints
 - Form of criteria
 - Sources of risk
 - People at risk
 - Basis for values
 - Stakeholder input
- Procedure for setting criteria
- Allocation of criteria
- Calculation of risk
- Type and form of risk estimates
- Uncertainties in risk estimates

