

Technological Risk Awareness

1 day
Overview

RISQTEC-EN-P

LEVEL

Knowledge

PURPOSE

This training course helps to develop a culture of technological risk and highlights the fundamental role of each individual in industrial risk management.

LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:
identify risk situations and related safety barriers,
better assess the consequences of defective/not respected barriers and the severity of potential accidents,
help maintain and improve safety barriers.

WAYS AND MEANS

Alternating sequences of technical inputs and applications/brainstorming in sub-groups.
Use of educational games.
Analysis of typical case studies in the industry and learning from incidents.

LEARNING ASSESSMENT

Quiz.

PREREQUISITES

Provide evidence of a professional experience of at least 1 month within its own company.

Agenda

TECHNOLOGICAL RISK CONTROL

0.25 d

Progress tools for the company: brand image, moral imperative, technical challenge, economic interests.
Risks and acceptability: hazard potential, initiating event, top event, probability of occurrence, severity, risk level, safety barriers, residual risks.
Hazardous phenomena, effects on personnel and on facilities (overpressure, thermal flux, toxic cloud...).

ACCIDENT SCENARIO

0.25 d

Analysis of accidents: learning lessons, sharing of Learning From Incidents (LFI).
Technical/organizational/human causes. Defective barriers.
Intended barriers: technical, organizational, human, prevention, protection, active, passive.

RISK ANALYSIS

0.25 d

Risk analysis during initial design and later modification: examples of risk analysis methods.
Bow-tie to "quantify" the importance of everyone's involvement.

ON SITE TECHNOLOGICAL RISK MANAGEMENT

0.25 d

Individual behavior: human strengths and limitations, respect for safety rules and systems, involvement in maintaining barriers, feedback from the field, maintaining vigilance, leading by example.

Management and maintenance of barrier effectiveness: main actors, every one's role before and after a failure, identification and management of activities at risk, management of changes, management of barrier inhibitions/shunts and compensatory measures, consequences of disregarding barriers.

Key Performance Indicators (KPIs).