



Process Hazard & Risk Analysis

Oil & Gas

What's the purpose?

Controlling risks within high hazard industries requires a robust process safety management (PSM) system and the experienced application of process hazard and risk analysis (PH&RA) techniques. This PH&RA course is part of the TÜV Rheinland Functional Safety Programme. The course demonstrates how to apply theory in practice, using simple and more complex examples to illustrate key points. Participants who successfully pass the examination will be awarded a FS Engineer (TÜV Rheinland) Certificate.

Who is this for?

Process engineers, safety engineers and managers, instrument engineers and operations personnel, plant and operations managers. Persons with HAZOP study experience and a basic knowledge of loss prevention.

What does it cover?

- Process Safety Management, Risk identification
- What if?, HAZID, HAZOP, FMEA
- Risk analysis, Risk matrix, Bowtie analysis
- Fault Tree & Event Tree analysis
- Physical Effects Modelling (PEM)
- LOPA, SIL Assessment
- Risk evaluation, risk criteria, ALARP assessment
- Risk treatment
- Communication, consultation, monitoring & review
- Selecting the right technique
- Planning PH&RA studies
- Facilitating workshop-based studies
- Reporting PH&RA studies
- Examination.

After completing the module you should be able to:

1. Apply the most popular and internationally adopted methods and tools for identifying and managing the risks associated with process related hazards
2. Actively participate in and give effective support during the whole process hazard and risk analysis approach
3. Identify hazards and analyse risk, including applying the IEC 61882 HAZOP standard
4. Relate the requirements of Functional Safety according to IEC 61508 / IEC 61511 to process hazards and risk analysis.

	Hours	Delivery method: Face-to-face
Attendance (including 3.5 hour exam)	30	4 days

If you are a corporate client and would like a customised delivery, please contact the training team to discuss your requirements.

What prior study is recommended?

PH&RA practitioner experience.

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