
VIRTUAL TRAINING COURSE

Hazard study awareness

This training course improves preparation and contribution by team members based on proven techniques covering the full project lifecycle.

[25 May 2023 - Virtual classroom](#)

[05 December 2023 - Virtual classroom](#)



Hazard study awareness

This training course provides improved awareness for hazard study team participants.

In addition to catastrophes such as the accidents at Flixborough, Bhopal, Seveso and more recently at Toulouse, major accidents occur almost daily in the chemical process industry. ICI invented the hazard and operability (HAZOP) study in the 1960s to anticipate hazardous events and ensure that suitable protective measures were included in the process by design. HAZOP has become firmly established as an essential safety tool during the design stage of new processes and significant modifications. Many companies have a suite of hazard studies carried out throughout the project process. Those coming under the COMAH Regulations in the UK use their hazard study process to demonstrate that the risks of their operations continue to be as low as reasonably practicable.

A hazard study is a team-based exercise and the quality of the result is highly dependent on the standard of leadership and the contribution of the study team members.

Whilst the need for the study leader to be suitably trained and experienced is well recognised, the study will be greatly enhanced by team members who are fully aware of their role and contribution. The regulatory authorities are increasingly questioning the competence of those involved in safety related activities. This course is aimed at providing a demonstration that suitable training is being provided, to be backed up by on-the-job experience.

Duration

1 day

Price

£650 + VAT

The benefits

The course will be of benefit to engineering and operations staff likely to be actively involved in hazard study teams for new processes or significant modifications.

On completion of the course you should have greater awareness of:

- A range of hazard study techniques and how these fit into a typical project programme
- Key assumptions and limitations of hazard studies
- Their role in the hazard study process
- Problems that can arise during hazard studies and how the team can help to resolve them
- Related topics such as inherent safety, risk assessment, instrumented protective systems and human factors

The course

The course has modules on the suite of hazard studies throughout a project cycle plus related process safety topics. It uses a lively mix of interactive presentations, worked examples, exercises and videos for both batch and continuous processes.

Delegate feedback

“Course notes comprehensive and useful for reference.”

“Experienced presenter with good examples to share, good use of actual incidents to back up the learning.”

“Excellent introduction to HAZOP and Hazard Studies.”

Course tutor

Rachel Spoonley is a Senior Safety Consultant for ABB. She has a degree in Chemical Engineering with over 30 years' experience in a variety of roles in the process industries. She has worked in design and operations for a range of industries from continuous bulk chemical and batch chemical manufacture, to utilities and effluent treatment. Rachel has been a HAZOP and LOPA leader in chemicals, oil and gas and the power sector for over ten years.

This course meets the requirements of Continuing Professional Development (CPD).

Agenda

Learning from accidents

- Notable accidents in the process industry
- Common causes of accidents
- The changing legislative environment

Introduction to hazard studies

- Brief history of hazard studies
- Legislation and published guidance
- The 6-stage hazard study process
- Timing of studies in the project lifecycle
- When can hazards be identified - syndicate exercise

Early hazard studies

- Checklist - Hazard study 1 method
- Applying inherent safety effectively
- What if - Hazard study 2 method
- Worked example of top-down study method
- Risk assessment methods and when to apply
- Example of the use of risk matrices

The HAZOP study

- HAZOP study method, timing and team composition
- Recording HAZOPs and resolving actions
- Team leading skills and pitfalls
- Continuous and batch plant HAZOP - syndicate exercises
- Awareness of safety instrumented system design
- Taking account of human factors

Control of change

- Examples of changes that have gone wrong
- Good industry practice for change control
- The importance of a suitable assessment
- When are full hazard studies required?
- Handling temporary modifications

Pre start-up safety review

- Hazard studies during commissioning
 - Case studies of faults during construction
 - Use of checklists for hazard studies 4 and 5
 - The benefits and procedure for hazard study 6
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ABB reserve the right to amend the course agenda.

How to book

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