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TRAINING COURSE

## Hazard study leaders

This course covers the techniques and leadership skills required for process safety hazard identification studies, including HAZID and HAZOP.

24-28 April 2023 - Teesside, ABB Office **Fully Booked!**

[02-06 October 2023 - Warrington, ABB Office](#)



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# Hazard study leaders

Hazard studies (including HAZID and HAZOP) are an essential element in managing the Process Safety impact of new projects and the ongoing operation of existing plants.

The techniques covered in this course are directly applicable to all industry sectors including chemicals, petrochemicals, oil & gas, pharmaceuticals, fine chemicals and utilities. They are well proven and highly effective for identifying hazards, assessing risks and developing improvement plans. This course will train you in the ABB techniques of the 8 stage hazard process and will develop the necessary skills to lead a team in carrying out hazard studies.

## **ABB's 8 stage hazard study stage**

The 8 stage hazard study process covers the full lifecycle of a project. It starts at the feasibility stage of a project with a study of the inherent safety of the project concept. The 8 stage hazard study process then mirrors the development phases of the project through detailed design, construction, commissioning, and ongoing operation. At each stage there is a hazard study technique which aligns with the needs and level of development of the project.

The 8 stage hazard study process has been developed by ABB over many years following the invention of HAZOP studies, to include HAZID studies to identify major accident hazards in early process design. This phased approach to Process Safety assessments during the life of the project reduces the likelihood of discovering significant safety or environmental problems in the later stages of the project and ensures cost effective risk management.

The ABB hazard study process can be applied to continuous and batch processes, non-chemical systems and PLC control systems, new projects, modifications, and existing plants.

## **The training method**

The course consists of a series of training modules that deal with the 8 hazard study stages, plus sessions on related topics designed to improve the capability of hazard study leaders. Presentations are interactive with some video illustrations. A series of team exercises are used for the process design stage hazard studies (including HAZID and HAZOP), to give the attendees a chance to put into practice what they have learnt during the lecture presentations.

## **Who will benefit and what they will gain**

Typical attendees would be process design engineers, safety managers, advisors, engineers and works or business technical personnel who are likely to lead Hazard Studies on a regular basis.

## **Delegate feedback**

"Excellent mix of videos, presentations and exercises."

"Realised the power of hazard study 1 and hazard study 2."

"Excellent course materials."

"Professional presentation."

"Good practical sessions - enables theory to be reinforced."

**Duration**

5 days

**Price**

Member of IChemE - £2030 + VAT

Non-Member - £2150 + VAT

**Course tutor**

**Stephen Beedle**, is a Senior Consultant in the Process Safety Group, working in the areas of risk assessment, process hazard review and COMAH. Stephen is an accredited hazard study leader and has been a course tutor on the ABB hazard study leaders course for several years.

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

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**Agenda**


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| - The phased 8 stage hazard study system overview   | - Hazard study 1 - early identification of hazards  |
| - Process safety, risk and the legal basis  | - Syndicate Exercises                               |
| - Hazard study 0 - Inherent safety, how to avoid hazards by design                        |   |
| - Fires, explosion and toxic gas hazards  | - Tolerability of risk and ALARP                    |
| - Hazard study 2 (HAZID) - establish the basis of safety, identification of major hazards | - Use of risk matrices                              |
| - Major hazard case studies   | - SIL assessment and the link to hazard study       |
| - Hazard Study 3 (HAZOP)  | - Syndicate exercises                               |
| - Team leadership - recording of hazard studies and action handling                       | - Syndicate exercises - continuous, batch processes |
| - Team leadership - effective team meetings   | - Hazard studies 4 & 5 - pre commissioning studies  |
| - Hazard study 6 - feedback from an operating plant                                       | - Hazard study of operating procedures              |
| - Hazard study of modifications, package units  | - Human HAZOP                                       |
| - Human factors and Hazard Studies  | - Learning from pre-study site tours                |
| - Hazard study 7 - Process Hazard Review (PHR) of existing plant                          | - Syndicate exercise - hazard study 7               |
| - Revalidation of hazard studies  | - Review of the course                              |
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ABB reserve the right to amend the course agenda.

**How to book**

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