

■ **Course title:**

A beginners guide to HAZOP studies

■ **Introduction:**

HAZOP or Hazard and Operability Review has been saving future lives in the High Hazard Processing Industries (Oil, Gas, Nuclear, Fertilizer) for more than 50 years. The HAZOP methodology is a rigorous and systematic approach to identifying credible deviations from steady state operation and judging whether the associated safeguards are adequate.

This course will help you better understand the methodology and how to conduct a HAZOP review effectively in the management of process safety and environmental and asset integrity scenarios.

The course offers references from Fertilizer and other High Hazard industries to accelerate student understanding.

Duration 1 hour.

■ **Course outline:**

Lessons

1. What does HAZOP mean?
2. Can it eliminate risk?
3. Where is it used?
4. How does it work?
5. Who else is on the team?
6. What does it produce?
7. What does it achieve?

Author(s) / Trainer(s):



Angus Keddie

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Process Hazard Consultant

Angus Keddie has spent 35 years with industry leaders such as BP, KBR and Air Liquide. He has held high level Process Safety, Technical, Operations, Proposals and Training positions. Angus graduated with an Honours Degree in Chemical Engineering from Edinburgh University in 1986. He was subsequently awarded an MBA from Aston University in 1997. Furthermore, he was elected a Fellow of the Institute of Chemical Engineers in 2014.

Angus combines a strong technical background, proven management and facilitation credentials and robust communication skills. He has leveraged the use of these assets to achieve success in the industry posts he has held to date in his career. He has led over 100 Process Hazard Assessments, including HAZOP, SIL, LOPA, HAZID and SIMOPs for High Hazard Processing Industry Projects.

In 2011 he established AK Safety First, which subsequently became Process Safety Matters, to provide world class Process Safety facilitation and training. He has developed and presented HAZOP, HAZID and LOPA Training courses which have been delivered in person and remotely in the UK and internationally.

■ Learning outcomes:

By the end of this training course you will understand:

- Understand how to plan, implement, record and review a HAZOP study
- Recognise and be able to use key terminology and guidewords associated with a HAZOP study
- Be aware of other process safety review tools and the limitations of a HAZOP study
- Understand the different roles within a HAZOP team and the balance of team dynamics
- Gain an appreciation of the softer skills required to ensure a HAZOP is successful
- Develop an instinct for the key HAZOP drivers by engaging with learning exercises

■ Who will benefit:

Anyone seeking a basic or intermediate knowledge of the HAZOP process and seeking to become more expert in its application. The course would particularly benefit management, engineering and operations/maintenance personnel with responsibility for managing hazards and implementing/sustaining risk control measures.

■ Course materials:

- Hand-out presentation slides in PDF format

■ Price:

€ 120

■ Discounts:

- 2 places – 10% discount
- 3 places – 15% discount
- 4 or more places – 20% discount.

■ In-company training:

This course is also available as an in-company course (face-to-face or online) where content can be customised to meet your organisation's specific needs and delivered on a date/location that suits your requirements.

[Contact us](#) for more information.

■ Training code: PSM02