

HAZARD OPERABILITY STUDIES (HAZOP)

HSE012

COURSE DESCRIPTION

HAZOP is a technique, which provides opportunities for people to let their imaginations go free and think of all possible ways in which hazards or operating problems might arise, but — to reduce the chance that something is missed — it is done in a systematic way, each pipeline and each sort of hazard is considered in turn. The study is carried out by a team so that the members can stimulate each other and build upon each other's ideas.

COURSE GOAL

To enhance the participants' knowledge, skills, and abilities necessary about hazard identification and the understanding of the Hazard and Operability Study technique by means of short presentations and a syndicate exercise.

COURSE OBJECTIVES

By the end of this training course, participants will be able to:

- Understand the power of HAZOP.
- Identify when to apply HAZOP.
- Understand the HAZOP guideword method.
- Understand the human and engineering data resources required.
- Be able to plan and report a HAZOP study.
- Contribute more effectively at HAZOP study meetings.

WHO SHOULD ATTEND

Any participants want to gain a basic understanding of Hazard operability studies.

COURSE DURATION

5 Working Days





COURSE OUTLINES

- Introduction
 - Normal start up and shutdown of plant
 - Operating deviation
 - Pressure deviation
 - Flow deviation
 - Level deviation
 - Changes in physical characteristics
- Control system
- Protective system
- Hazard identification methods
 - What if
 - Checklist
 - Failure mode and effect analysis
- Hazard and operability studies (HAZOP)
 - What is a HAZOP?
 - Who carries out a HAZOP?
 - When a HAZOP is carried out and how long does it takes?
 - Some points to watch during HAZOP
 - An example of a HAZOP
 - Could a computer carry out a HAZOP?
 - The limitations of HAZOP
- Some accidents that could have been prevented by hazard and operability studies