CHAZOP Studies for Process Safety

This course teaches participants how to use CHAZOP, What-If, and Failure Modes and Effects Analysis (FMEA) to identify hazard scenarios originating in control systems.

Many processes today are automated and computer control systems play vital roles in their safe operation. The importance of computer control systems merits the performance of hazard analysis explicitly on them. Special techniques, such as the computer hazard and operability (CHAZOP) study, have been developed for this purpose.

You will learn:

- Why hazard analysis is needed for control systems.

- How CHAZOP, What-If and FMEA are used for control systems.

- What types of failures occur in control systems.

- Who should participate in CHAZOP studies.

- What information is needed for CHAZOP studies.

- What process deviations should be addressed.

- How control systems should be noded.

- How risk can be reduced in control systems.

Attendees receive a detailed course manual for use as a reference after completing the course. Resource materials, checklists, job aids, and electronic copies of regulatory requirements are also provided.

Objective:

Be able to effectively and efficiently perform hazard analysis for control systems.

Target Audience:

Personnel responsible for hazard analysis of control systems, participants in CHAZOP studies, automation professionals.

Course Topics:

- Overview

- Characteristics of control systems

- HAZOP, What-If and FMEA for control systems

- Failures in control systems

- Study preparation

- Design representations for control systems

- Design intent for control systems

- Use of HAZOP guide words for control systems

- Information requirements

- Team composition

- Noding for CHAZOP studies

- Conducting studies

- Risk reduction for control systems

Duration:

One day, 0.7 CEUs awarded

For more information, contact:
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