

PROCESS HAZARD ANALYSIS (PHA)

HSE059

COURSE DESCRIPTION

Process Hazard Analysis (PHA) is a critical component of any process safety management program. It involves identifying and analyzing potential hazards associated with chemical and manufacturing processes to prevent accidents and ensure safe operation. This course will provide participants with an overview of PHA methods, including hazard identification, risk assessment, and mitigation strategies. It will also cover relevant regulatory requirements and best practices for conducting PHA studies

COURSE OBJECTIVES

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

- Understand the importance of PHA in process safety management
- Identify and assess potential hazards associated with chemical and manufacturing processes
- Select and apply appropriate PHA methods for different types of processes
- Develop and implement effective mitigation strategies to reduce risk
- Comply with relevant regulatory requirements and industry standards

WHO SHOULD ATTEND

This course is designed for individuals who are responsible for process safety management in chemical and manufacturing industries. This includes engineers, operators, supervisors, managers, and other professionals involved in designing, operating, and maintaining chemical processes.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Introduction to PHA

- Overview of process safety management
- Importance of PHA in process safety management
- Regulatory requirements and industry standards

2. PHA Methods

- Hazard identification techniques (checklists, what-if analysis, HAZOP)
- Risk assessment techniques (semi-quantitative and quantitative methods)
- Selection of appropriate PHA methods for different types of processes

3. Mitigation Strategies

- Developing and implementing effective mitigation strategies
- Risk reduction techniques (inherent safety, process modifications, administrative controls)
- Emergency planning and response

4. PHA Documentation and Follow-up

- Documentation requirements and best practices
- Follow-up actions and management of change
- Review and update of PHA studies

5. Case Studies and Exercises

- Case studies illustrating the use of PHA in different industries
- Hands-on exercises to practice PHA methods and techniques.

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