

# MAIRODI MANDIRI SEJAHTERA

TRAINING, CONSULTING & ENGINEERING SERVICES

Alamat: Gedung Dapenpos Lt.2, Jl. PH.H. Mustofa No.35, Bandung, Indonesia, 40124 Telp/Fax: +62-22-7215668, Homepage: www.mairodi-training.com

## Training Syllabus:

## HAZOPS (HAZARD AND OPERABILITY STUDIES)

### **INTRODUCTION:**

Hydrocarbon processing industry is categorized as a high risk industry due to the hazards containing either in the material processed or the operations used in its facilities. Because of its vulnerability, a simple event, either manmade or natural one may lead to significant disasters. Flixborough, Bhopal, Piper Alpha disasters are classic examples of major accident causing serious loss of life and/or property. A deep understanding on safety related aspects of the materials and processes or operations implemented in hydrocarbon facilities is therefore critical to operate this kind of industry in safe manner and preventing it to go wrong. The course provides a thorough understanding of the HAZOP techniques and experience of their application. Legislation and best practice require companies to proactively manage health and safety of employees and public. The HAZOP Technique is a widely used method of identifying hazards and operability problems, providing the foundation for the risk assessment process. HAZOP can reduce pre and post start-up modifications and improve productivity and product quality. On course, the lectures are underpinned by syndicate exercises.

### **TRAINING OBJECTIVE:**

- a. Give an appreciation of the risk management process to position HAZOP within that process
- b. Provide an in-depth understanding and experience of the various HAZOP techniques and their correct s.

## TRAINING MATERIAL OUTLINE:

#### Day 1:

- 1. Introduction and course objectives
- 2. Basic Surface Safety System
- 3. Process Variable & Component Operating Conditions
- 4. Undesirable Events

## Day 2:

- 1. Protection Concept
- 2. Process Safety System & Devices
- 3. Predictive Process Hazard Analysis (PHA) techniques and methodologies
- 4. Overview of the HAZOP process Risk ranking at the HAZOP study

# Day 3:

- 1. HAZOP process in detail including the follow up and review process
- 2. Introduction to technique for procedural HAZOP
- 3. The role of the chairman, secretary and the team members

# MMS

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4. Workshop-exercise HAZOP

# **Day 4:**

- 1. Workshop-simulation HAZOP including discussion of results 2
- 2. HAZOP actions/recommendations and HAZOP reports
- 3. Advantages and disadvantages of the HAZOP technique
- 4. Pointers for effective HAZOP Course review including question and answer

### WHO SHOULD ATTEND THIS TRAINING?:

Course is aimed at all those concerned with the safe and efficient performance of potentially hazardous Plant and operations:

- 1. Managers
- 2. Process Engineers
- 3. Instrument Engineers
- 4. Structure Engineers
- 5. Electrical Engineers
- 6. Mechanical Engineers
- 7. Safety and Environment Engineers
- 8. Plant Operators

**INSTRUCTOR:** Ir. In Jumanda Kasdadi, MT. and Team

**VENUE**: Kagum Group Hotel Bandung (Golden Flower, Banana Inn, Serela, Gino Feruci), Amaroossa Hotel, Noor Hotel, Grand Setiabudi Hotel, dll

**TRAINING DURATION:** 4 days

### **TRAINING TIME:**

Februari 2024	Maret 2024	April 2024
5 - 8 Februari 2024	4 - 7 Maret 2024	1 - 4 April 2024
12 - 15 Februari 2024	12 - 15 Maret 2024	22 - 25 April 2024
19 - 22 Februari 2024	18 - 21 Maret 2024	29 April – 2 Mei 2024
26 - 29 Februari 2024	25 - 28 Maret 2024	
Juni 2024	Juli 2024	Agustus 2024
3 - 6 Juni 2024	1 - 4 Juli 2024	5 - 8 Agustus 2024
10 - 13 Juni 2024	8 - 11 Juli 2024	12 - 15 Agustus 2024
19 - 22 Juni 2024	15 - 18 Juli 2024	19 - 22 Agustus 2024
24 - 27 Juni 2024	22 - 25 Juli 2024	26 - 29 Agustus 2024
	29 Juli – 1 Agustus 2024	
	5 - 8 Februari 2024 12 - 15 Februari 2024 19 - 22 Februari 2024 26 - 29 Februari 2024 Juni 2024 3 - 6 Juni 2024 10 - 13 Juni 2024 19 - 22 Juni 2024	5 - 8 Februari 2024



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September 2024	Oktober 2024	November 2024	Desember 2024
2 - 5 September 2024	1 - 4 Oktober 2024	4 - 7 November 2024	2 - 5 Desember 2024
9 - 12 September 2024	7 - 10 Oktober 2024	11 - 14 November 2024	9 - 12 Desember 2024
16 - 19 September			
2024	14 - 17 Oktober 2024	18 - 21 November 2024	16 - 19 Desember 2024
23 - 26 September			
2024	21 - 24 Oktober 2024	25 - 28 November 2024	
	28 - 31 Oktober 2024		

## **INVESTMENT PRICE/PERSON:**

- 1. Rp. 8.500.000/person (full fare) or
- 2. Rp. 8.250.000/person (early bird, payment 1 week before training) or
- 3. Rp. 7.950.000/person (if there are 3 persons or more from the same company)

### **FACILITIES FOR PARTICIPANTS:**

- 1. Training Module
- 2. Flash Disk contains training material
- 3. Certificate
- 4. Stationeries: NoteBook and Ballpoint
- 5. T-Shirt
- 6. Backpack
- 7. Training Photo
- 8. Training room with full AC facilities and multimedia
- 9. Lunch and twice coffeebreak everyday of training
- 10. Qualified instructor