



BASIC PRINCIPLES OF INDUSTRIAL HYGIENE TRAINING



MTBM Group Sdn. Bhd. (1600656-M)

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Course Title: Basic Principles of Industrial Hygiene Training

Course Validity: 4 Days

Validity: Not Applicable

HRD Corp Scheme: Claimable

INTRODUCTION:

This training provides essential knowledge on the fundamental principles of industrial hygiene, including the recognition, evaluation and control of workplace health hazards. Participants will learn how chemical, physical, biological and ergonomic exposures occur, how to assess them using industrial hygiene methods, and how to apply practical control strategies to ensure a safe and healthy working environment in compliance with regulatory and industry requirements.

OBJECTIVE(S):

- Understand the core concepts and scope of industrial hygiene.
- Identify chemical, physical, biological and ergonomic hazards.
- Apply principles of exposure assessment and basic measurement techniques.
- Interpret exposure limits and regulatory requirements.
- Develop appropriate control measures using the hierarchy of controls.
- Strengthen workplace health risk prevention and monitoring strategies.

TARGET GROUP(S):

- Safety & Health Officers / Site Safety Supervisors
- Industrial hygiene personnel
- Engineers & maintenance teams
- ERT members
- OSH/HR personnel

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ENTRY REQUIREMENT(S):

- Able to read, write and communicate in Malay/English
- Basic understanding of OSH concepts (recommended)

TOPIC(S):

1. Introduction to Industrial Hygiene
2. Legal & Regulatory Requirements (OSHA, USECHH, Guidelines)
3. Industrial Hygiene Terminology & Concepts
4. Types of Workplace Hazards (Chemical, Physical, Biological, Ergonomic)
5. Chemical Hazards & Exposure Routes
6. Physical Hazards (Noise, Heat, Radiation, Vibration)
7. Biological Hazards & Infection Control
8. Ergonomic Risk Factors
9. Health Effects of Workplace Exposures
10. Exposure Limits (PEL, TLV, REL, STEL, Ceiling)
11. Recognition Techniques (Walkthrough Survey, Documentation Review)
12. Exposure Assessment Process
13. Air Sampling Basics & Instruments Overview
14. Noise Monitoring Fundamentals
15. Heat Stress Evaluation Basics
16. Control Measures (Hierarchy of Controls)
17. PPE for Industrial Hygiene Hazards
18. Health Risk Communication
19. Industrial Hygiene Monitoring Programs

LIST OF REFERENCE BOOK(S):

- ACGIH Industrial Ventilation & TLV Guidelines
- OSHA 1994 & OSHA (Amendment) Act 2022
- USECHH Regulations & DOSH Guidelines
- NIOSH Industrial Hygiene Manual
- ISO 45001 (Relevant Health Hazard Controls)

LIST OF TEACHING AID(S):

- LCD projector
- Noise meter (demo)
- Heat stress monitor
- Air sampling pumps (demo)
- PPE samples (respirators, gloves, hearing protection)
- Checklists & assessment forms
- Flip chart / whiteboard

METHODOLOGY(S):

- Interactive lecture
- Group discussion
- Case studies
- Demonstration of measurement instruments
- Practical exercises
- Assessment through activities

TRAINING SCHEDULE

Day 1

Time	Activity / Topic
8:30 am – 9:00 am	Registration & Introduction
9:00 am – 10:15 am	Topic 1: Introduction to Industrial Hygiene
10:15 am – 10:30 am	Morning Tea Break
10:30 am – 12:30 pm	Topic 2: Legal & Regulatory Requirements
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 3: Industrial Hygiene Concepts
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Topic 4: Workplace Hazards Overview

TRAINING SCHEDULE

Day 2

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 1
9:00 am – 10:15 am	Topic 5: Chemical Hazards & Exposure Routes
10:15 am – 10:30 am	Morning Tea Break
10:30 am – 12:30 pm	Topic 6: Physical Hazards
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 7: Biological Hazards
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Topic 8: Ergonomic Risk Factors

TRAINING SCHEDULE

Day 3

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 2
9:00 am – 10:15 am	Topic 9: Health Effects of Exposures
10:15 am – 10:30 am	Morning Tea Break
10:30 am – 12:30 pm	Topic 10: Exposure Limits
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 11: Recognition Techniques
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Topic 12: Exposure Assessment & Sampling Basics

TRAINING SCHEDULE

Day 4

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 3
9:00 am – 10:30 am	Topic 13: Noise & Heat Stress Evaluation
10:30 am – 10:45 am	Morning Tea Break
10:45 am – 12:30 pm	Topic 14: Control Measures & PPE
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 15: IH Monitoring Programs
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Case Studies, Practical Exercises & Assessment