



INERT SPACE ENTRY TRAINING



MTBM Group Sdn. Bhd. (1600656-M)

Level 8, MCT Tower, Sky Park, One City, Jalan USJ 25/1, 47650 Subang Jaya, Selangor

Course Title: Inert Space Entry Training

Course Validity: 3 Days

Validity: 3 Years

HRD Corp Scheme: Claimable

INTRODUCTION:

This training provides essential knowledge and practical skills for personnel involved in inert space entry where oxygen levels are deliberately reduced or replaced with inert gases. It covers the hazards associated with oxygen-deficient environments, atmospheric monitoring, equipment setup, PPE usage, safe entry controls and emergency response procedures to ensure that all inert space tasks are conducted safely, effectively and in accordance with regulatory and industry requirements.

OBJECTIVE(S):

- Understand regulatory and industry requirements for inert space entry.
- Identify hazards related to oxygen-deficient and inert atmospheres.
- Perform atmospheric monitoring and gas verification.
- Apply safe entry procedures, including isolation, ventilation and standby duties.
- Use appropriate PPE such as SCBA and supplied-air breathing systems.
- Develop and implement emergency response for inert space scenarios.
- Conduct safe rescue operations in low-oxygen environments.
- Strengthen overall competency in inert space operations and safe system of work.

TARGET GROUP(S):

- Safety & Health Officers / Site Safety Supervisors
- Emergency Response Team (ERT) Members
- Maintenance and engineering teams
- Inert space standby personnel
- Tank, vessel, reactor & confined structure workers
- Supervisors and line leaders

ENTRY REQUIREMENT(S):

- Able to read, write and communicate in Malay/English
- Physically fit for practical activities

TOPIC(S):

1. Introduction to Inert Space Entry
2. Legal Requirements & Standards for Oxygen-Deficient Work
3. Characteristics of Inert Gases (Nitrogen, CO₂, Argon)
4. Hazards in Inert Atmospheres
5. Atmospheric Testing & Oxygen Measurement
6. Isolation, Purging & Ventilation Procedures
7. Permit-to-Work (PTW) & Entry Authorization
8. Roles & Responsibilities (Entrant, Attendant, Supervisor)
9. PPE for Inert Space Entry (SCBA, Airline Respirators)
10. Communication Procedures & Standby Duties
11. Safe Entry Techniques & Movement in Low-Oxygen Zones
12. Emergency Response Planning (ERP)
13. Rescue Techniques & Breathing Apparatus Usage
14. Casualty Handling in Oxygen-Deficient Environments

LIST OF REFERENCE BOOK(S):

- Industry Code of Practice for Safe Working in Confined Spaces 2010
- OSHA 1994 & OSHA (Amendment) Act 2022
- DOSH Guidelines for Confined Space and Inert Atmosphere Work
- ISO 45001 (Relevant Emergency Preparedness Requirements)
- NFPA & international inert entry/rescue guidelines

LIST OF TEACHING AID(S):

- LCD projector
- Oxygen & gas detector (demo unit)
- SCBA & supplied-air breathing sets
- Inert space PPE set
- Rescue mannequin
- PTW & checklists
- Flip chart / whiteboard

METHODOLOGY(S):

- Interactive lecture
- Group discussion
- Case study review
- Demonstration of equipment
- Hands-on practical sessions
- Practical rescue assessment

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 Inert Space Entry
10:15 am – 10:30 am	Morning Tea Break
10:30 am – 12:30 pm	Topic 2: Legal Requirements & Standards
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 3: Hazards in Inert Atmospheres
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Topic 4: Atmospheric Testing & Oxygen Measurement

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: Isolation, Purging & Ventilation
10:15 am – 10:30 am	Morning Tea Break
10:30 am – 12:30 pm	Topic 6: PTW, Roles & Responsibilities
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 7: PPE – SCBA & Breathing Systems
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Topic 8: Communication & Safe Entry Techniques

TRAINING SCHEDULE

Day 3

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 2
9:00 am – 10:30 am	Topic 9: Emergency Response Planning
10:30 am – 10:45 am	Morning Tea Break
10:45 am – 12:30 pm	Topic 10: Rescue Techniques & Breathing Apparatus
12:30 pm – 1:30 pm	Lunch Break
1:30 pm – 3:00 pm	Topic 11: Casualty Handling in Inert Atmospheres
3:00 pm – 3:15 pm	Afternoon Tea Break
3:15 pm – 5:00 pm	Practical Simulation & Final Assessment