



## **SAFE OPERATION OF HIGH PRESSURE WATER JETTING 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:** Safe Operation of High Pressure Water Jetting Training

**Course Validity:** 3 Days

**Validity:** 3 Years

**HRD Corp Scheme:** Claimable

## **INTRODUCTION:**

This training provides essential knowledge and hands-on competency for personnel involved in high pressure water jetting activities. It covers the fundamentals of jetting systems, associated hazards, equipment setup, hose and pressure management, PPE requirements, safe operating procedures and emergency response measures. Participants will also learn proper techniques for various jetting applications and practical handling of equipment to ensure all tasks are carried out safely, efficiently and in compliance with regulatory and industry standards.

## **OBJECTIVE(S):**

- Understand legal and industry requirements for HPWJ activities.
- Identify hazards, risks and appropriate control measures.
- Perform correct equipment setup, hose management and nozzle selection.
- Apply safe operating techniques and communication procedures.
- Conduct safe startup, operation and shutdown of HPWJ equipment.
- Respond effectively to emergencies, equipment failure and injection injuries.
- Enhance overall competency and safety awareness among operators and supervisors.

**TARGET GROUP(S):**

- Maintenance and engineering personnel
- Water jetting operators and attendants
- Industrial cleaning teams
- ERT members
- Supervisors and line leaders
- Contractors involved in hydroblasting and high-pressure cleaning

**ENTRY REQUIREMENT(S):**

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

**TOPIC(S):**

1. Introduction to High Pressure Water Jetting
2. Legal Requirements & Industry Standards
3. Types of HPWJ Systems (Low, High & Ultra-High Pressure)
4. Components of Jetting Equipment
5. Hazard Identification & Injection Injury Awareness
6. Risk Assessment & Safe Work Procedures
7. PPE for HPWJ Operations
8. Hose Management & Pressure Control
9. Nozzle Types & Operating Parameters
10. Safe Work Practices & Barricading
11. Operating Techniques (Surface, Pipe, Tank)
12. Startup & Shutdown Procedures
13. Inspection & Maintenance of Equipment
14. Emergency Response for HPWJ Incident

**LIST OF REFERENCE BOOK(S):**

- WJTA Water Jetting Recommended Practices
- British Water Jetting Association (BWJA) Guidelines
- OSHA 1994 & OSHA (Amendment) Act 2022
- DOSH Guidelines for Pressure Equipment
- ISO 45001 (Relevant Safety Requirements)

**LIST OF TEACHING AID(S):**

- LCD projector
- HPWJ equipment (demo unit)
- PPE demonstration set (cut-resistant suit, gloves, visor)
- Hoses, connectors and nozzles
- Checklists & Safe Work Procedure forms
- Flip chart / whiteboard

**METHODOLOGY(S):**

- Interactive lecture
- Case studies
- Group discussion
- Equipment demonstration
- Hands-on practice
- Practical 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 HPWJ
10:15 am – 10:30 am	<b>Morning Tea Break</b>
10:30 am – 12:30 pm	Topic 2: Legal Requirements & Standards
12:30 pm – 1:30 pm	<b>Lunch Break</b>
1:30 pm – 3:00 pm	Topic 3: Hazards & Injection Injury Awareness
3:00 pm – 3:15 pm	<b>Afternoon Tea Break</b>
3:15 pm – 5:00 pm	Topic 4: Equipment Components & Setup

## 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: PPE & Safe Work Practices
10:15 am – 10:30 am	<b>Morning Tea Break</b>
10:30 am – 12:30 pm	Topic 6: Hose Management & Pressure Control
12:30 pm – 1:30 pm	<b>Lunch Break</b>
1:30 pm – 3:00 pm	Topic 7: Barricading & Line-of-Fire Control
3:00 pm – 3:15 pm	<b>Afternoon Tea Break</b>
3:15 pm – 5:00 pm	Topic 8: Operating 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: Startup & Shutdown Procedures
10:30 am – 10:45 am	<b>Morning Tea Break</b>
10:45 am – 12:30 pm	Topic 10: Practical HPWJ Operation
12:30 pm – 1:30 pm	<b>Lunch Break</b>
1:30 pm – 3:00 pm	Topic 11: Emergency Response & First Aid
3:00 pm – 3:15 pm	<b>Afternoon Tea Break</b>
3:15 pm – 5:00 pm	Practical Simulation & Final Assessment