Working at Height Safety (Level 1)

Course Description
This training program is designed to align with DOSH/JKKP Legislation and focuses on ensuring safety in work at height activities. Work at height is defined as any task performed at a location 2 meters or more above or below ground level where a fall could result in injury. It also encompasses activities involving access to and exit from elevated or confined spaces.

The program provides comprehensive guidance to help both workers and employers identify, mitigate, and eliminate workplace hazards. Participants will gain fundamental knowledge and practical skills in:

Recognizing safety, health, and environmental hazards in work at height activities.
Implementing effective control measures to reduce risks.
Developing and applying Occupational Safety and Health (OSH) policies and programs.
Whether you're a worker aiming to enhance your safety awareness or an employer striving for compliance and hazard management, this course equips you with the tools and strategies to create a safer work environment.

Course Objectives:

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

- Perform work at heights safely with minimal supervision.
- Identify job-specific requirements and plan tasks accordingly.
- Access, install, and utilize the necessary equipment for work at heights.
- Conduct a thorough risk assessment for work-at-height activities.
- Ensure proper cleanup and maintenance of the work area post-task.

Target Group

- Managers.
- Engineers.
- Safety Officers.
- Maintenance
- Supervisors.
- Workers who working 2 meters and above

Course Methodology

- Introduction to BOWEC 1986
- Fall arrest harness types
- Identify Hazards.

- Video presentation
- Ladder Safety / Scaffold Safety
- Self-Retracting Lifeline (SRL) usage

Certification

- Certificates in “Work at Height Safety Level 1” certs
- Competency Card of 3years are awarded to participants on successful completion of 1 day

Working at Height Safety

Training Provider	Safety Training Consultancy
MY COID	LLP0019189LGN
Trainer	Mr Sivadas Kunjan
Program Subject	Working at Height Safety
HRDC Program Number	HRDC No:10001180350
Duration	1 day
Time	9:00am - 5:00pm
Payment Term	HRDC / CASH

TRAINING AGENDA (DAY 1)

9:00am - 9:20am	**New Legislation of OSHA** • FACTORIES AND MACHINERY ACT 1967 [ACT139] (Removed and added in OSH 1994 Act 514 • BUILDING OPERATIONS AND WORKS OF ENGINEERING (BOWEC CONSTRUCTION) (SAFETY) REGULATIONS 1986 • OCCUPATIONAL SAFETY AND HEALTH Act 1994 (Act 514) • Occupational Safety & Health 1994 Act514 (Amendment 2022)
9:20am - 10.30am	**Module 1: New Amendment Bill Legislation** **Occupational Safety & Health Act 1994 (Act 514) - Amendment 2022** This section highlights the key changes introduced in the amended OSHA to ensure comprehensive workplace safety: 1. **Expanded Coverage:** The amended OSHA applies to all workplaces. 2. **New Duties:** • **Principal, Employer, and Self-Employed Persons:** Mandatory Hazard Identification, Risk Assessment, and Risk Control (HIRARC).

	3. **Occupational Safety and Health Coordinator:** Requirement to appoint a coordinator for safety and health matters. 4. **Right to Remove from Danger:** Employees are entitled to withdraw from work situations posing imminent danger. 5. **Stricter Penalties:** Enhanced penalties for non-compliance by employers, self-employed individuals, principals, and manufacturers. 6. **Liability of Directors and Office Bearers:** Accountability for safety violations is now joint and several. 7. **Plant Inspection:** Mandatory inspection and certification of plant safety and fitness. 8. **Workplace Notifications:** Obligation to notify authorities of workplace occupancy, plant installation, and inspections. **Factories and Machinery Act (FMA) 1967 (Act 139)** This act regulates factory operations, focusing on safety, health, welfare, and machinery registration and inspection. **Working at Height Hazards** Participants will learn about hazards and risks associated with working at heights, including: • Fall risks due to vertical distance, fragile roofs, roof lights, voids, and sloping or deteriorating surfaces. • Unprotected edges, unstable or poorly maintained access equipment, and adverse weather conditions. **Learning Outcomes:** • Identify hazards related to working at heights. • Conduct and document a comprehensive risk assessment. • Safely select, inspect, and operate portable ladders and platforms. • Understand safe practices for working with scaffolds, edge protection, and elevating work platforms. • Select and use fall injury prevention systems effectively, including anchors and attachment devices. • Develop and implement on-site rescue plans. **On-Site Delivery Requirements:** Participants must wear approved Personal Protective Equipment (PPE) during training.
10:00am - 10:30am	**Tea Break**
10.30am - 12.30pm	**Module 2 - Ladder Safety** This module focuses on essential practices to ensure safety while using ladders: • Maintain 3-Point Contact: Always keep two hands and one foot, or two feet and one hand, in contact with the ladder while climbing or descending. • Proper Positioning: Stay near the center of the ladder and face it directly while moving up or down. • Traffic Management: Use barricades or warning signs to keep people or vehicles away from the ladder work area.

	• Clean and Safe Ladders: Ensure ladders are free from slippery substances such as grease, oil, or water before use. Participants will learn to apply these practices effectively to minimize risks and ensure safe ladder usage. **Module 3 - Near Miss** This module defines and emphasizes the importance of identifying and addressing near-miss incidents: • What is a Near Miss? A near miss is an unplanned event that did not result in injury, illness, or damage but had the potential to do so under slightly different circumstances. • Alternative Terms: Near misses are also known as close calls, near accidents, or injury-free events. • Significance in Safety: Understanding and reporting near misses is crucial for preventing future incidents and improving workplace safety practices. Participants will learn to recognize, report, and analyse near misses to foster a proactive safety culture. **Module 4: Mobile Elevated Working Platform (MEWP)** This module focuses on the safe operation of Mobile Elevated Working Platforms (MEWPs), which include **scissor lifts, boom lifts, and telehandlers.** **Key Safety Guidelines:** 1. **Clear Work Area:** Ensure the area around the MEWP is free from personnel and equipment before lowering the platform. 2. **Stability:** Never position the MEWP against another object for stability. 3. **Operating Controls:** Operate the MEWP only from within the platform, unless using ground controls for specific operations. 4. **Fall Restraint Systems:** • When using a boom-type MEWP, it is highly recommended to wear a short lanyard that restricts movement, ensuring the operator remains securely within the platform. This module equips participants with the knowledge and practices needed to operate MEWPs safely and comply with safety regulations.
12.30pm - 2:00pm	**Lunch Break**
2.00pm - 3.30pm	**Module 5: Abseiling Basics & Best Practices of Rope Safety** This module introduces the fundamentals of abseiling and essential rope safety practices to ensure safe operations at height. **Key Concepts:**

1. **Working Load:**
    - The working load refers to the maximum weight a rope can safely support without risk of breaking.
    - It is significantly lower than the rope's tensile strength, typically ranging between **15% and 25%** of its tensile strength.

Participants will learn to calculate and adhere to safe working loads, ensuring proper rope selection and usage to mitigate risks during abseiling activities.

Module 6: Scaffolding Safety

This module covers the essential principles and practices for the safe erection, use, and inspection of scaffolding.

Key Safety Guidelines:

1. **Erection and Installation:**
    - Ensure scaffolds are built on a firm, solid foundation.
    - Install and connect all scaffold components correctly, adhering to safety standards.
    - Tie scaffolds at a ratio of **4:1** for added stability.
2. **Load Management:**
    - Avoid overloading scaffolds with construction materials.
    - Ensure the platform uses fully metal decks with guardrails, and workers are equipped with fall arrest systems (body harness).
3. **Inspection and Access:**
    - Inspect the scaffold before starting each work shift to ensure its stability and safety.
    - Provide a safe means of access to the scaffold for workers.
4. **Additional Protection:**
    - Use toe boards and/or screens to prevent tools, materials, debris, or equipment from falling from the scaffold.
5. **Safe Work Load (SWL) Calculation:**
    - **List of Components and Weight:** Identify all scaffold components and their respective weights.
    - **Load Reduction:** Account for at least a **25% reduction** in the load capacity of used scaffolds, based on manufacturer specifications and certified performance tests.
    - **Dead and Live Loads:** Calculate the total dead load (weight of the scaffold itself) and live load (weight of materials and workers).
    - **Imposed Load Ratio:** Determine the total imposed load ratio to ensure safe loading.
    - **SWL Calculation:** Ensure the final calculated SWL complies with safety standards and operational requirements.

This module provides the knowledge and skills necessary to safely erect and use scaffolds, manage loads, and ensure a secure work environment at height.

Module 7: Fall Protection Descender (Practical)

	This module focuses on the practical use of fall protection descenders, which are essential devices for safe rope descent. **Key Features and Functions:** 1. **Device Overview:** • A **hand-held, manually operated device** that connects the user to the rope. • It allows controlled and safe descent by regulating friction as the rope travels through the device. 2. **Control of Descent:** • The user can regulate the descent speed by adjusting the friction applied through the device, maintaining control throughout the process. 3. **Safety Features:** • **Auto-Lock System:** Some industrial rope access descenders are equipped with an auto-lock mechanism that automatically locks the device if the handle is released, preventing uncontrolled descent. • **Anti-Panic Function:** Some devices feature an anti-panic function, which locks the device if the handle is pulled too quickly or too hard, preventing accidents during rapid movements. Through practical training, participants will learn how to safely use fall protection descenders, ensuring controlled descents and minimizing fall risks in rope access scenarios.
3:30pm - 3.45pm	**Tea Break**
3.45pm - 5:00pm	**Module 8: Fall Factor from Height (Practical)** This module focuses on understanding the **fall factor** and its implications for safety when working at height, along with important safety considerations such as suspension trauma. **Key Concepts:** 1. **Lanyard Certification and Strength:** • All lanyards, with various combinations of connectors, are individually certified per **EN 354:2010** and have a minimum breaking strength of **22 kN to 25 kN**. 2. **Fall Factor:** • The **fall factor** is the distance a worker falls before the fall protection system starts to slow the descent. • According to **OSHA standards**, this fall distance should never exceed **1.8 meters (6 feet)** and is determined by the length of the lanyard and the attachment point of the harness. 3. **Suspension Trauma:** • **Suspension trauma**, also known as **harness hang syndrome** or **orthostatic intolerance**, occurs when a worker is suspended in a harness after a fall, awaiting rescue. • Prolonged suspension can cause the **leg straps** of the harness to compress the femoral arteries, restricting blood flow and leading to serious circulatory problems.

	• Early recognition and prompt rescue are critical to prevent suspension trauma. **Module 9: Practical Assessment** This module will assess participants' understanding and application of safety practices learned throughout the course, ensuring they can effectively implement fall protection measures in real-world scenarios.
5:00pm	**End**