SAFETY INDUCTION COURSE

PREPARED BY: ONG KEE HOCK

INTRODUCTION TO WORKPLACE SAFETY

Workplace safety refers to policies, procedures, and behaviors designed to protect employees' health and well-being on the job. It includes preventing accidents, injuries, and exposure to harmful situations.

1. Legal Responsibility
   - Laws and Regulations: Employers must comply with health and safety laws (like OSHA or local regulations).
   - Avoid Penalties: Failing to meet standards can result in heavy fines, shutdowns, or legal action.
   - Duty of Care: Companies are legally obligated to provide a safe working environment.

INTRODUCTION TO WORKPLACE SAFETY

2. Personal Responsibility
   - Protect Yourself and Others: Unsafe actions can hurt you, coworkers, or even clients.
   - Be Proactive: Speak up about hazards and follow safety procedures.
   - Team Culture: Everyone plays a role in creating a safe workplace.

HAZARD IDENTIFICATION

- Observation

Watch how tasks are performed and identify any unsafe practices, equipment, or environmental conditions.

- Consultation

Talk to employees and safety reps—those doing the job often know the risks best.

- Inspection

Regularly inspect machinery, materials, and processes for potential hazards.

- Review of Past Incidents

Analyze accident and near-miss reports to find patterns and recurring issues.

- Job Safety Analysis (JSA)

Break down each job into steps and assess hazards at each stage.

HAZARD IDENTIFICATION

Types of Hazards Type	Examples
Physical	Noise, heat, vibration, radiation
Chemical	Gases, vapors, fumes, flammable materials
Biological	Viruses, bacteria, mold
Ergonomic	Repetitive movements, poor workstation setup
Psychosocial	Stress, harassment, workload
Mechanical	Moving machinery, sharp edges

HAZARD IDENTIFICATION

Identified Hazards - Hierarchy of Controls

- Elimination. Example: Remove a noisy machine from the workplace.
- Substitution. Example: Replace a toxic chemical with a less harmful one.
- Engineering Controls. Example: Install ventilation systems and guardrails.
- Administrative Controls. Example: Rotate job shifts, train workers, implement signage.
- Personal Protective Equipment (PPE). Example: Gloves, goggles, helmets.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Head Protection
   - Helmets – Protect against falling objects, impact, and head injury.
2. Eye and Face Protection –
   - Safety glasses – For basic impact protection.

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Safety Helmets

Safety Glasses

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Face shields – For full-face protection from sparks, splashes, or debris.Helmets – Protect against falling objects, impact, and head injury.

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Face Shields

PERSONAL PROTECTIVE EQUIPMENT (PPE)

3. Hearing Protection
   - Earplugs – Disposable or reusable, inserted into the ear canal.
   - Earmuffs – Cover the ears to reduce noise exposure.

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Earplug

Earmuffs

PERSONAL PROTECTIVE EQUIPMENT (PPE)

4. Respiratory Protection
   - Dust masks – For protection against non-toxic dust.
   - Respirators – For protection against harmful gases, vapors, or particulates.

Dust masks

Respirators

PERSONAL PROTECTIVE EQUIPMENT (PPE)

4. Respiratory Protection
   - Self-contained breathing apparatus (SCBA) – For high-risk environments like confined spaces.

Self-contained breathing apparatus (SCBA)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

5. Hand Protection
   - Gloves – Vary by material (rubber, nitrile, leather, cut-resistant) to protect against chemicals, cuts, burns, or electrical hazards.

3M-Gloves

Electrical Insulated Gloves

PERSONAL PROTECTIVE EQUIPMENT (PPE)

6. Body Protection
   - Coveralls / Lab coats – General protection from dirt, chemicals, and minor abrasions.
   - Chemical suits – For full-body chemical resistance.

Coveralls / Lab coats

Chemical suits

PERSONAL PROTECTIVE EQUIPMENT (PPE)

6. Body Protection
   - High-visibility clothing – For enhanced visibility in work zones.

High-visibility clothing

PERSONAL PROTECTIVE EQUIPMENT (PPE)

7. Foot Protection
   - Safety boots/shoes – With steel/composite toe caps, slip-resistant soles, or puncture-resistant midsoles.
   - Rubber boots – For wet environments or chemical handling

Safety boots/shoes

PERSONAL PROTECTIVE EQUIPMENT (PPE)

8. Safety Harness

A full body harness is a safety harness that connects the worker to the fall protection system anchored into the structure they're working on. Using a series of straps that fit around the thighs, hips, chest, shoulders, and back, these harnesses arrest falls while minimizing injury to the worker.

Safety boots/shoes

PERSONAL PROTECTIVE EQUIPMENT (PPE)

8. Safety Harness

Full Body Harness

Attachment	: Dorsal attachment D-ring for fall arrest
Adaptability	: Adjustable chest, shoulder & thigh strips
Ergonomic	: Ideally positioned sit-strap & additional back pad for extended comfort
Material	: 45mm polyester strap
Max. rate load	: 100 kg
Colour	: Red/Black - Dual colour webbing for easy wearing
Standard	: EN361:2002 & DOSH SIRIM approved

Energy Absorbing Lanyard & Hooks

Carabiner	: One steel auto-closed & screw-lock carabiner
Hook	: Two forged steel scaffold hooks
Length	: Max. 1.8 meter (Including connectors)
Material	: 13mm polyester twisted rope
Max. rate load	: 100 kg
Standard	: EN355:2002 & DOSH SIRIM approved

KEY ELEMENTS OF A SAFETY PROGRAM

1. Training and Education:
   - Weekly Toolbox Meeting for all employees. The purpose of Toolbox Meeting:
     - Reduces workplace accidents.
     - Improves morale and communication.
     - Reinforces a proactive safety culture.
     - Boosts productivity through clarity and preparedness.

KEY ELEMENTS OF A SAFETY PROGRAM

2. CBM's Risk Assessments:
   - To identify potential hazards that could negatively impact people, assets, or operations.
   - To evaluate the likelihood and consequences of these risks.
   - To prioritize risks based on their severity.
   - To implement controls that minimize or eliminate risks.
   - To ensure compliance with legal and regulatory requirements.
   - To promote a safe, secure, and resilient working environment.

All staff must adhere to the control measures identified during the CBM's risk assessment throughout the work process to ensure safety and compliance.

KEY ELEMENTS OF A SAFETY PROGRAM

3. CBM's Safe Work Procedure

The purpose of a Safe Work Procedure (SWP) is to ensure that work tasks are carried out safely and consistently, reducing the risk of injury, illness, or damage. Here's a breakdown of its key purposes:

1. Protect Worker Health and Safety

SWPs outline steps to safely perform a task, helping prevent accidents and injuries.

2. Ensure Compliance with Laws and Regulations

They help employers meet legal obligations under workplace health and safety legislation.

3. Provide Clear, Standardized Instructions

SWPs standardize how tasks are done, so everyone follows the same safe method.

KEY ELEMENTS OF A SAFETY PROGRAM

4. Serve as a Training and Reference Tool

SWPs are used to train new workers and remind experienced workers of the correct procedures.

5. Identify and Control Hazards

Each step in a procedure highlights potential risks and how to eliminate or reduce them.

6. Improve Workplace Efficiency

Clear procedures reduce confusion and mistakes, improving productivity and workflow.

INCIDENT REPORTING

1. CBM staff or Ops Manager report Incident to CBM Control Centre (CCC) @ Tel: 6718 6999.

2. CCC Duty Supervisor or Manager record in Ops Log as follow:
   - Name of caller
   - Contact No. of caller
   - Location of Incident/Fault
   - Time of Incident

Record Incident Details in Incident Report Form through the Joget.

3. CCC Duty Supervisor or Manager clarify the nature of report and categorize the incident to categories of incidents as follow:

INCIDENT REPORTING

Categories	Description (Workplace & Work-Related Incidents)	Description (Non-Workplace & Non-Work-Related Incidents)	Verbal Report from Project Site/Division /Subsidiaries to CCC	Written Report from Project Site/Division/ Subsidiaries to CCC **(Preliminary Report)**	Remarks
Category One Severe Incident	Fatal accidents* Loss of Equipment and Property Incident which attracts public media and lead to Bad Publicity of Company Fire/ Flood/ Power Failure	Incident which attracts public media and lead to Bad Publicity of Company	Within **1 Hour** of the incident	Within **3 hours** of the incident	• CBM Control Centre (CCC) shall notify GM, HOD, Hd QMS, Office Manager, Hd HR, COO, CCO, CEO immediately through phone call or SMS first. • Then followed by email with more details.
Category Two Major Incident	Major injuries** Any injuries resulting from traffic accidents. e.g. (1) traveling during work or for work (e.g. to a meeting), regardless of the mode of transport; (2) taking company transport to and fro between residence and workplace Any injuries or injuries resulting from incidents in public areas Breakdown of Critical System as defined in the Service Contract		Within **6 Hours** of Incident	Within **12 Hours** of Incident	CBM Control Centre (CCC) shall notify GM, HOD, Hd QMS, Office Manager, HR Manager, CCO, COO through Email
Category Three Minor Incident	Any Near-Miss Incidents	Death Hospitalization of HOD Any injuries resulting from traffic accidents when travelling to and fro between residence (inclusive of Johore Bahru) and workplace. (for WIC Ext claims)	Upon notification of staff	Within **24 Hours** of Incident	

SAFE USE OF LADDER

The safe use of ladders is important to protect you and your workers' safety. Use this guide to keep you and your workers safe.

Ladder is in good working condition without any visible defects.	
Ladder is extended fully before starting work.	
Ladder is placed on stable and level ground.	

SAFE USE OF LADDER

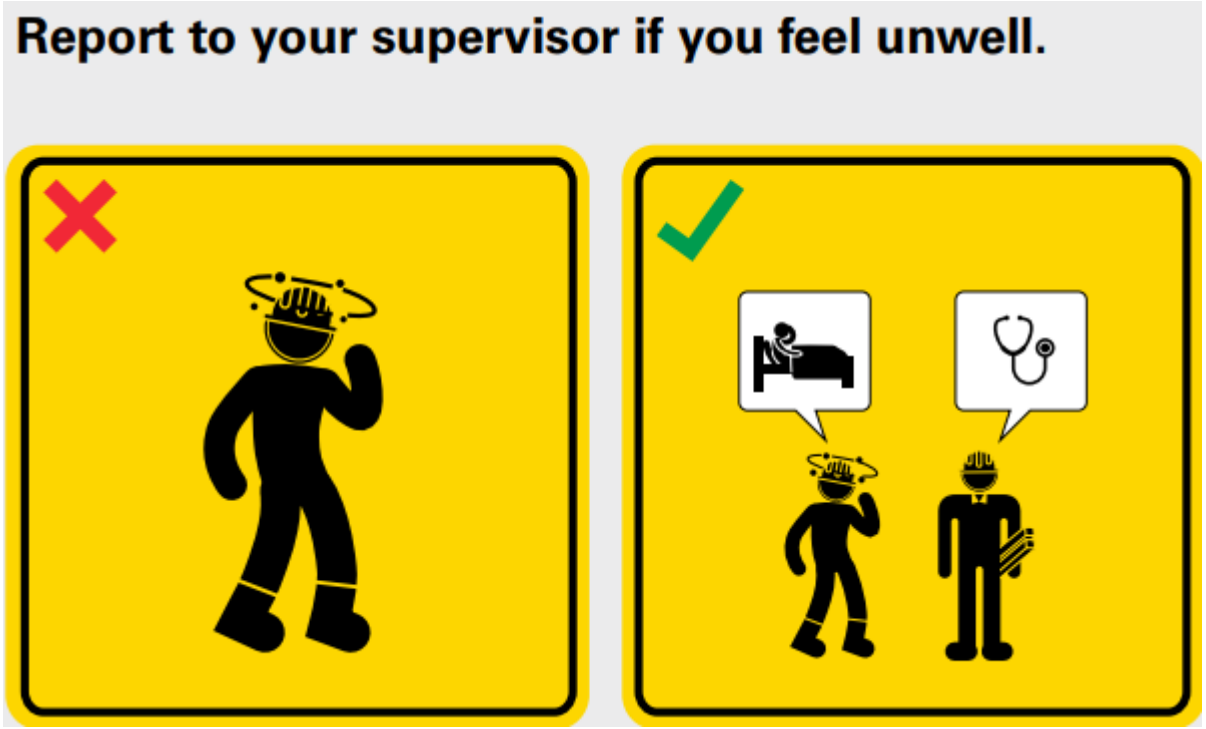
Workers are instructed not to work on the top rung of the ladder.	
Workers are instructed not to carry any object in their hands when climbing a ladder.	
Workers maintain three points of contact with the ladder at all times (two legs and one hand, or two hands and one leg).	

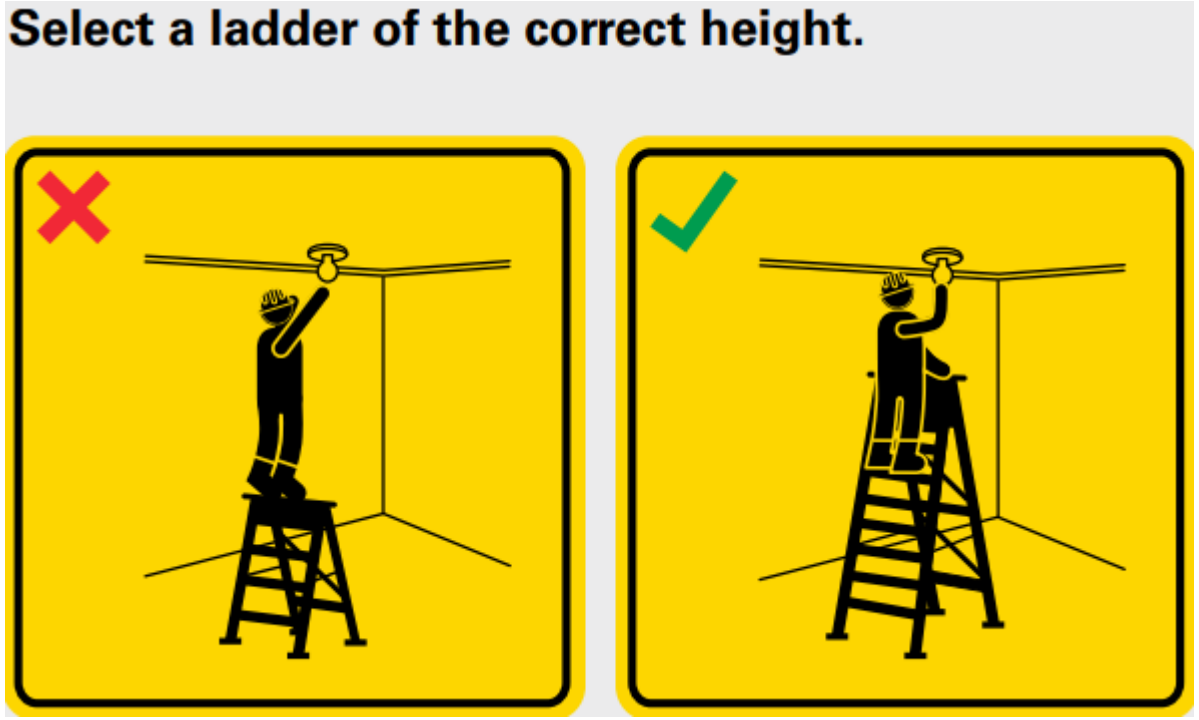
SAFE USE OF LADDER

Workers are wearing proper footwear, for example, non-slip flat shoes, when using a ladder.	

6 BASIC WORKPLACE SAFETY AND HEALTH (WSH) RULES FOR SAFE USE OF LADDER

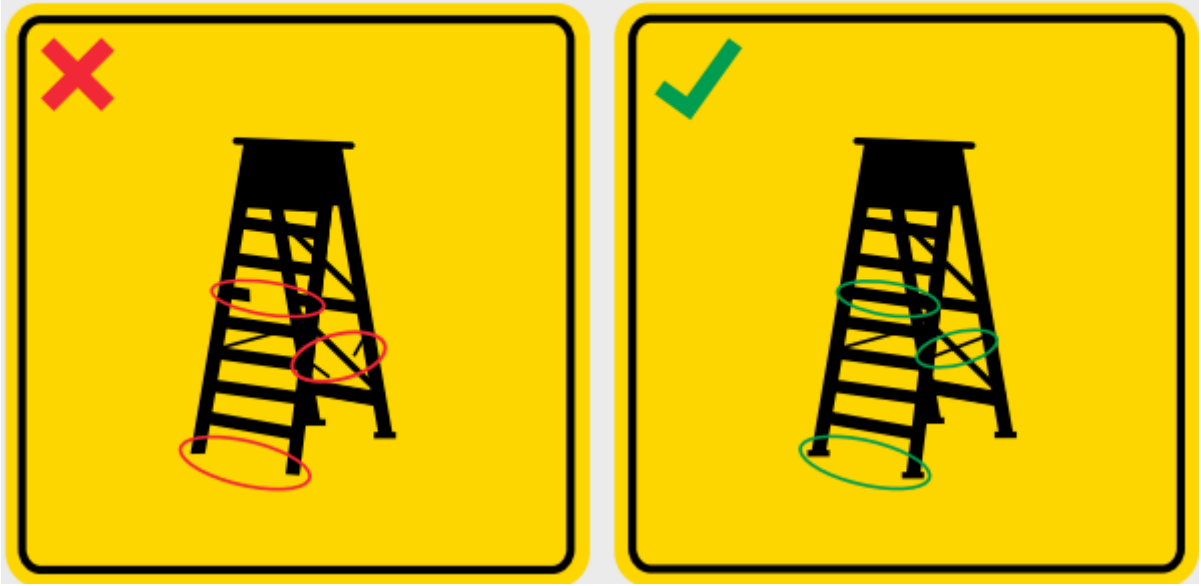
A-frame ladders are easy to deploy and often used to reach a higher area. Select proper ladders and use them correctly to prevent accidents. Always do a Risk Assessment before using a ladder.



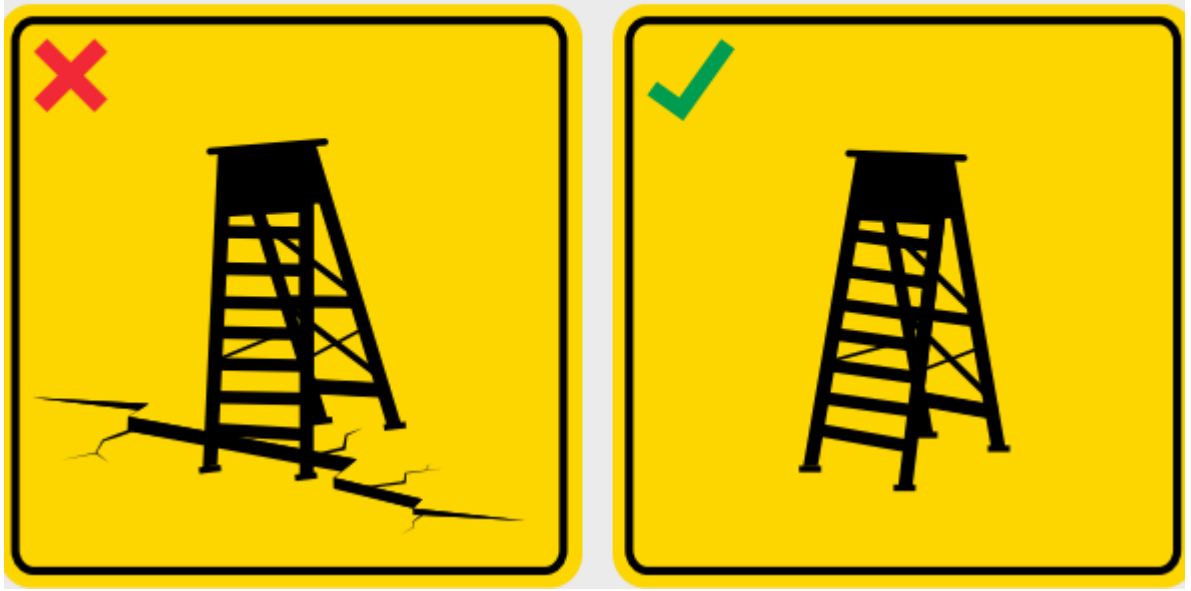


6 BASIC WORKPLACE SAFETY AND HEALTH (WSH) RULES FOR SAFE USE OF LADDER

Check that the ladder is in good condition.

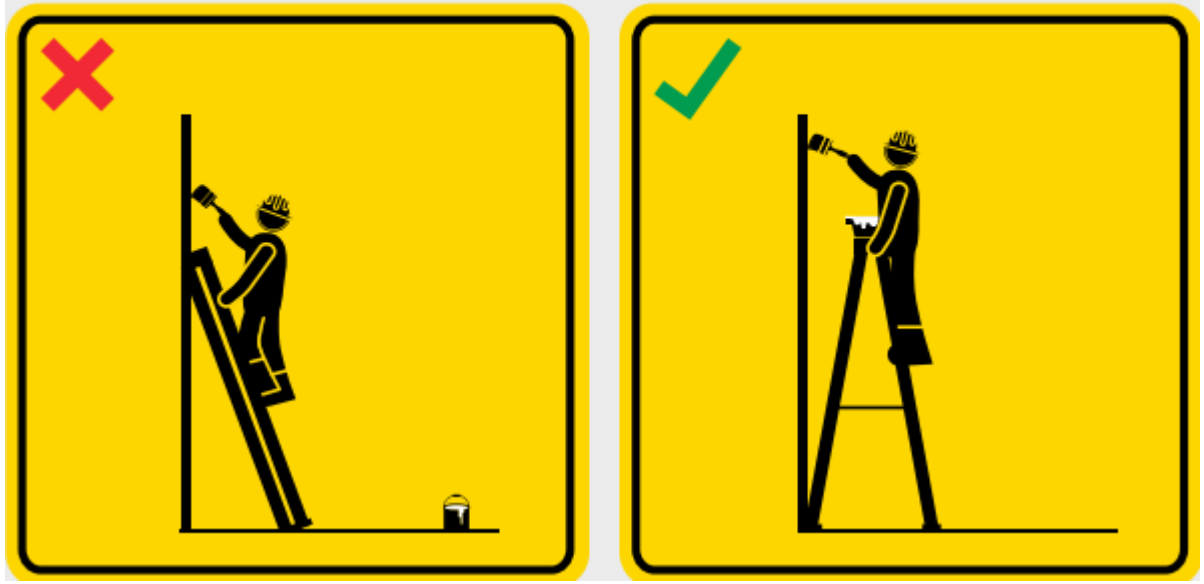


Place the ladder on stable and level ground.

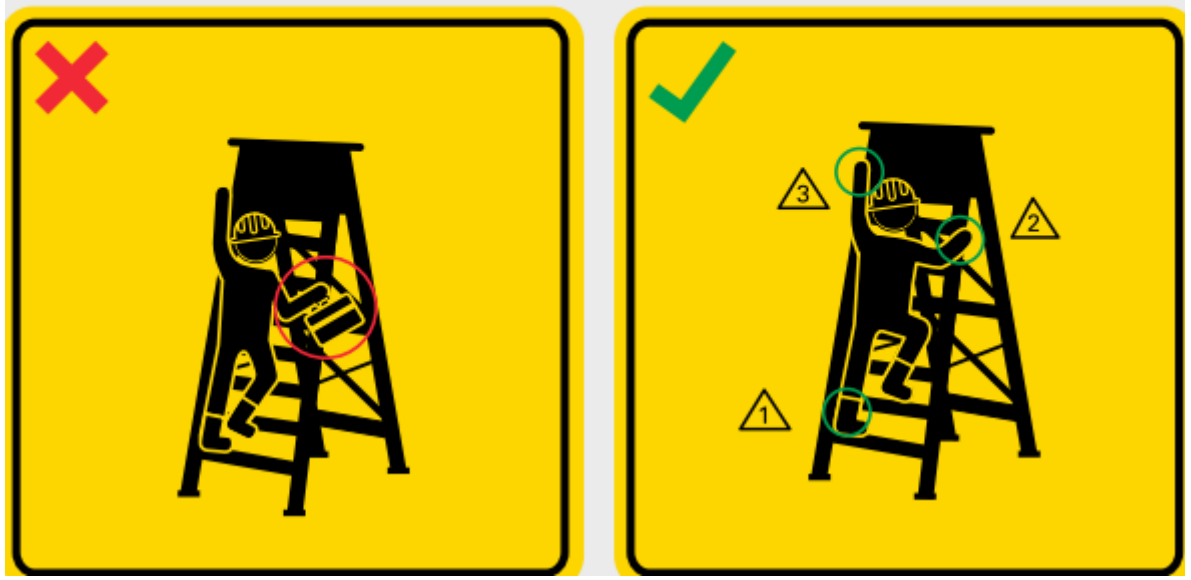


6 BASIC WORKPLACE SAFETY AND HEALTH (WSH) RULES FOR SAFE USE OF LADDER

Use the ladder in the correct manner.



Maintain 3-point contact.



PERMIT TO WORK

A Permit to Work (PTW) system is used to control high-risk activities and ensure safety procedures are followed. The types of work that typically require a PTW include:

1. Hot Work
   - Welding, grinding, cutting, or brazing
   - Use of open flames or spark-producing tools
   - Any activity that could ignite flammable materials
2. Confined Space Entry
   - Entry into tanks, vessels, silos, or pits where toxic gases, low oxygen, or other hazards may exist.

PERMIT TO WORK

3. Working at Heights
   - Use of scaffolding, ladders, or elevated platforms
   - Roof work or areas with fall risk
4. Excavation and Trenching (>1.5m in depth)
   - Digging near utilities or where ground stability is a concern
   - Work that could affect structural foundations.
5. Electrical Work
   - Work on live electrical systems or near exposed conductors
   - Isolation, maintenance, or testing of electrical panels

OFFENCES

In Singapore, the safety penalty system involves penalties for violating the Workplace Safety and Health (WSH) Act, including fines and demerit points. Fines can range from $10,000 to $50,000, and serious breaches can also result in imprisonment. A demerit point system also exists for the construction and manufacturing sectors, where accumulating a certain number of points can lead to debarment from certain activities.

OFFENCES

The tables below outline the maximum penalty for failing to comply with the WSH Act:

Not complying with a Remedial Order or Stop Work Order

Offence	Maximum fine	Maximum imprisonment	Conditions
Not complying with Remedial Order	$50,000 and additional fine of $5,000 for each day of continued offence	12 months	Either or both
Not complying with Stop Work Order	$500,000 and additional fine of $20,000 for each day of continued offence	12 months	Either or both

OFFENCES

In Singapore, a fine of $1,000 is levied for a first conviction related to failure to use personal protective equipment (PPE) or misuse of safety appliances, as outlined in the Workplace Safety and Health Act 2006. This fine can increase to $2,000 for a second or subsequent offence.

The Workplace Safety and Health Act (WSH Act) in Singapore mandates that individuals working in workplaces must use personal protective equipment (PPE) and properly use safety appliances to ensure their safety and health. Failure to comply with these requirements can result in penalties.

First Offence: For a first-time violation, the penalty is a fine not exceeding $1,000.

Second or Subsequent Offence: If a person is convicted a second or subsequent time for the same offence, the fine increases to $2,000.

These penalties are intended to deter individuals from disregarding safety measures and ensure that workplaces are maintained safely and healthily for everyone.

Safety Induction Quiz

Based on the Safety Induction Course

Prepared by: Ong Kee Hock

Section 1: General Workplace Safety

- 1. What is the main goal of workplace safety policies?
- a) Increase profits
- b) Reduce staff turnover
- c) Protect employees’ health and well-being
- d) Improve product quality

Section 1: General Workplace Safety

- 2. True or False: Only employers are responsible for maintaining safety in the workplace.

Section 1: General Workplace Safety

- 3. List two methods used in hazard identification.

Section 2: Hazard Control

- 4. Arrange the following in the correct order according to the hierarchy of controls:
- a) Engineering Controls
- b) Elimination
- c) PPE
- d) Administrative Controls
- e) Substitution

Section 2: Hazard Control

- 5. Which of the following is an example of substitution control?
- a) Replacing a toxic chemical with a safer one
- b) Wearing gloves
- c) Posting safety signs
- d) Conducting training sessions

Section 3: PPE (Personal Protective Equipment)

- 6. Match the PPE with its function:
- a) Safety Helmets → ___
- b) Respirators → ___
- c) Safety Boots → ___
- d) Face Shields → ___

- i) Full face protection from debris
- ii) Protection against head injury
- iii) Protection against harmful gases
- iv) Toe and sole protection

Section 3: PPE (Personal Protective Equipment)

- 7. True or False: A dust mask provides the same level of protection as a self-contained breathing apparatus (SCBA).

Section 3: PPE (Personal Protective Equipment)

- 8. When should high-visibility clothing be worn?
- a) In rainy weather
- b) During nighttime only
- c) In work zones for better visibility
- d) Only on construction sites

Section 4: Safety Program Elements

- 9. What is the purpose of a Toolbox Meeting? (Choose all that apply)
- a) To reduce accidents
- b) To reprimand employees
- c) To reinforce safety culture
- d) To boost communication and morale

Section 4: Safety Program Elements

- 10. Why are Safe Work Procedures (SWPs) important?
- a) They help companies avoid paying wages
- b) They ensure consistency and reduce risk
- c) They allow shortcuts during tasks
- d) They are optional guidelines

Section 5: Incident Reporting & Ladder Use

- 11. Who should report an incident to the CBM Control Centre?
- a) Safety officer only
- b) Any CBM staff or Ops Manager
- c) Only injured workers
- d) HR department

Section 5: Incident Reporting & Ladder Use

- 12. List 3 safety rules for using ladders in the workplace.

Section 6: Permit to Work & Offences

- 13. Which of the following activities requires a Permit to Work?
- a) Office typing
- b) Hot work like welding
- c) Attending a meeting
- d) Driving to work

Section 6: Permit to Work & Offences

- 14. True or False: In Singapore, failing to use PPE may result in a fine of $1,000 for the first offence.

Section 6: Permit to Work & Offences

- 15. What is the maximum penalty for not complying with a Stop Work Order under the WSH Act in Singapore?

Answer Key: Safety Induction Quiz