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# NEBOSH

## INTERNATIONAL GENERAL CERTIFICATE IN OCCUPATIONAL HEALTH AND SAFETY

### Element 8: General workplace issues





# SCOPE OF LEARNING

- 1 Health, welfare and work environment
- 2 Working at height
- 3 Safe working in confined spaces
- 4 Lone working
- 5 Slips and trips
- 6 Safe movement of people and vehicles in the workplace
- 7 Work-related driving



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# 8.1 HEALTH, WELFARE AND WORK ENVIRONMENT

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# WORKPLACE ENVIRONMENT

## Ventilation

Workplaces must have enough ventilation. The workrooms should be circulated with fresh, clean air that has not been contaminated by emissions from chimneys, flues, or other process outputs.

Moreover, ventilation should remove and diffuse warm, humid air and create air movement that feels fresh without creating a draught. More fresh air will be required to provide proper ventilation if the workplace has heating or processing equipment, as well as additional sources of dust, fumes, or vapours. Windows or other openings may offer adequate ventilation, but if mechanical ventilation systems are required, they should be installed and kept in good working order.





# WORKPLACE ENVIRONMENT

## Temperatures in indoor workplaces

An individual's "thermal comfort" is influenced by a combination of environmental and personal factors, including humidity levels and heat sources in the workplace, as well as physical demands placed on the worker by their work and the gear they are wearing. It is challenging to define a thermal environment that pleases everyone due to individual preferences. Offices, for example, where most of the work is sedentary, should typically have a temperature of at least 16 °C. if the job requires Physical effort it should be at least 13 °C (unless other laws require lower temperatures).



# WORKPLACE ENVIRONMENT

## Lighting

There should be enough light for individuals to work and move around securely. If necessary, local lighting should be installed at each workplace as well as in high-risk areas such intersections on roads. Lights and lighting fixtures shouldn't pose any risks.

Where a rapid loss of light poses a concern, automatic emergency lighting should be installed and powered by a separate source.





# WORKPLACE ENVIRONMENT

## Cleanliness and waste materials

Every workplace should be kept tidy, as should the furniture, fittings, and furnishings. It should also be possible to keep the surfaces of the floors, walls, and ceilings tidy. Cleaning and garbage collection should be done as needed using an efficient approach. Trash should be kept in appropriate containers.





# WORKPLACE ENVIRONMENT

## Room dimensions and space

Workspaces should have adequate room for people to move around comfortably. When the number of people who typically work there is divided by the volume of the room when it is vacant, the result should be at least 11 cubic metres. Any portion or all of a room that is higher than 3.0 m should be measured at 3.0 m. A minimum of 11 cubic metres per person may not be sufficient, depending on the design, contents, and type of work.





# WORKPLACE ENVIRONMENT

## Workstations and seating

Workstations should be appropriate for the users and the tasks they perform. In an emergency, people should be able to quickly abandon their workplaces. Seats that are appropriate for the persons using them and the work they do should be supplied if work can or must be done while sitting. For workers who can't put their feet flat on the floor, footrests should be available, and seating should provide enough lower back support.





## WELFARE ARRANGEMENTS

- Sanitary conveniences and washing facilities
- Drinking water
- Accommodation for clothing and facilities for changing
- Facilities for rest and to eat meals



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## 8.2 WORKING AT HEIGHT

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## WORK AT HEIGHT RISKS

- Vertical Distance
- Roofs
- Unprotected Edges
- Unstable or Poorly Maintained Access Equipment
- Weather
- Falling Materials



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# CONTROL MEASURES

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## CONTROL MEASURES

- ❑ Before working at height they should work through these simple steps:
- ❑ avoid work at height where it's reasonably practicable to do so;
- ❑ where work at height cannot be easily avoided, prevent falls using either an existing place of work that is already safe or the right type of equipment
- ❑ minimize the distance and consequences of a fall, by using the right type of equipment where the risk cannot be eliminated.



## CONTROL MEASURES

### **A Simple Hierarchy Can Be Adopted To Prevent Falls:**

Using guardrails, fences, toe boards, and other structures sturdy enough to stop a fall, create a secure working platform.

Provide properly placed personal equipment, such as rope access or boatswain's chairs, where this is not feasible or reasonable.

Provide fall-arresting gear, such as a safety harness or safety net, if this is not possible and a worker can approach an exposed edge.

Although the final option does not prevent falls, it does reduce the fall's length and effects (i.e. injury).



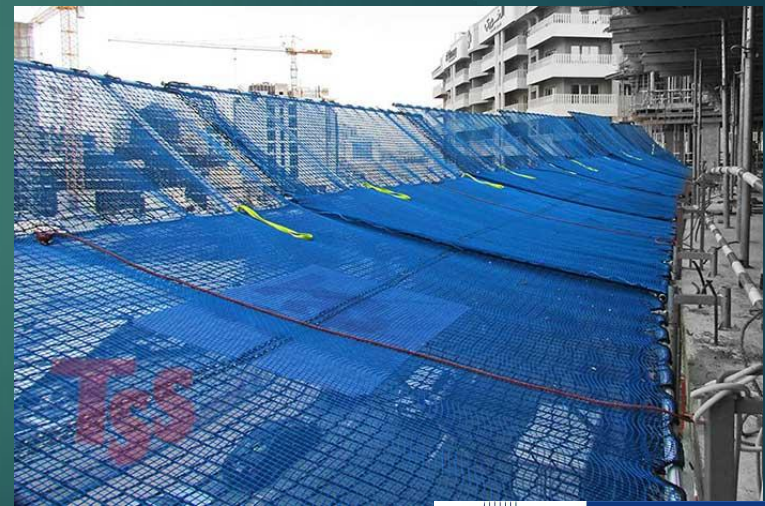


## CONTROL MEASURES

**Prevention of injury caused by falling materials should be controlled using a similar approach:**

Use physical safety measures such as toeboards and brick guards to prevent items from falling (see later).

If risk persists, utilise physical barriers like debris netting, fans (wooden shields angled to catch debris), and covered pathways to stop falling objects from striking persons below.







# CONTROL MEASURES

## Preventing Falls And Falling Materials

- ❑ To prevent falls from height and flying objects, proper planning and work monitoring are crucial. Individuals in charge of such work must to be knowledgeable and skilled, using their expertise to guarantee:
- ❑ Choosing and utilising the appropriate access equipment.
- ❑ Appropriate supply and handling of equipment and supplies (especially getting them up and down from work locations).
- ❑ Sufficient information, training, and instruction for all parties involved.



## WORK PLATFORMS

**Work platforms (e.g. on a scaffold tower) should be:**

- Sufficiently large to allow safe use.
- Capable of bearing the loads imposed upon them.
- Fully boarded to prevent gaps that could present tripping hazards, or allow materials or people to fall through.



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## SUSPENDED ACCESS EQUIPMENT

The typical component of suspended access equipment is a suspended cradle that is lowered into place from above. Guardrails and toe boards can completely enclose the cradle, creating a secure work area.

It may be required to employ personal suspended-access equipment, such as a boatswain's chair, in some situations where using this kind of equipment is not practical.

Light, quick work can be done in a boatswain's chair. The chair often has a back, a suspension point, and a way to transport tools. To avoid falls, the user should be securely fastened to the chair with a harness.





## HEAD PROTECTION

- Construction and industrial sites should be designated as hard-hat-required locations since there is frequently a risk of falling or moving objects there. A hard helmet guards against a severe head injury brought on by:
  - The impact from small objects that fall.
  - Being struck by moving objects.





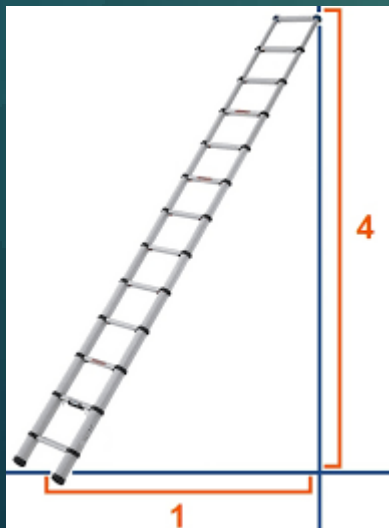
## HAZARDS FROM THE USE OF LADDER

- Reaching or leaning too far rather than moving the ladder.
- Placing the ladder on boxes or pallets to make it taller.
- Climbing the ladder while carrying items.
- Using the wrong ladder for the job, such as using a step ladder as a straight ladder.
- Standing on the very top step or rung.
- Placing an extension or straight ladder at the wrong angle.
- Worn or damaged ladders.
- Exceeding the ladders weight limit.
- Throwing tools to a worker who is on the ladder.
- Using metal ladders in areas where contact with electrical wires could occur.
- Proximity to live overhead power cables



## SAFETY PRECAUTIONS

- Only transport lightweight equipment and supplies; evaluate the hazards by reading the manufacturer's labels on the ladder;
- avoid going too far and make sure your navel or belt buckle is inside the stilettoes;
- verify that the ladder is tall or high enough for the task;
- avoid overloading the ladder by taking your weight into account as well as the load you are carrying before operating at heights;
- search for any warnings on the ladder's label or pictogram;
- ensure that the ladder angle is 75 degrees; apply the 1-in-4 rule (ie one unit out for every four units up)



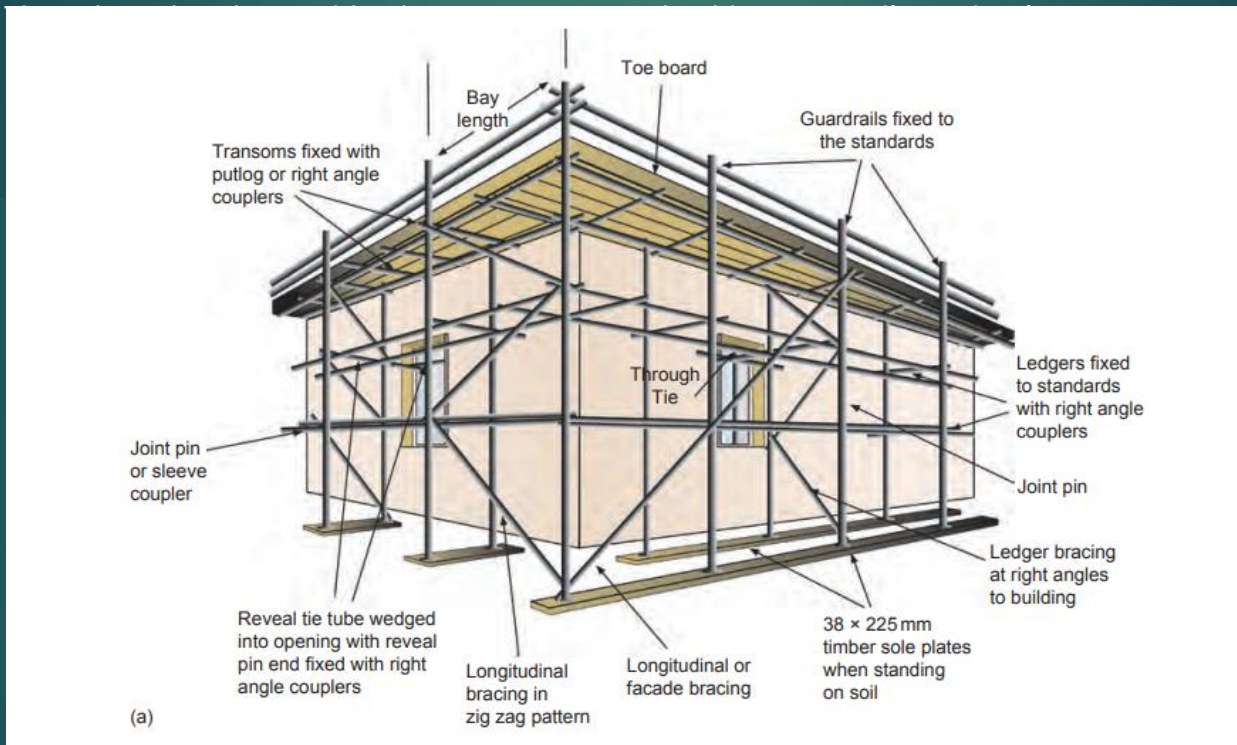


# SAFETY PRECAUTIONS

- Never slide down the stiles while climbing or descending; always hold onto the ladder and face the rungs;
- avoid attempting to extend or move the ladder while standing on the rungs;
- Ensure that the ladder extends at least 1 m (three rungs) above where you are working and avoid working off the top three rungs;
- On moving objects like pallets, bricks, lift trucks, tower scaffolds, excavator buckets, vans, or mobile elevating work platforms, ladders should not be put;
- avoid holding items when climbing; instead, think about wearing a tool belt;
- Unless an overhead electrical line has been made dead or is insulated, avoid working within 6 metres of any such line. For any electrical operations, use a non-conductive ladder (made of fibreglass or wood, for example);
- when climbing and wherever feasible at the work posture, keep three points of contact
- There are further steps you must take to prevent a fall or lessen the effects if one occurs where you cannot retain a handhold for more than a small length of time (for example, to hold a nail while starting to knock it in, start a screw, etc.);
- Provide a sturdy upper resting point and secure the ladder (e.g., by tying it to prevent it from moving outwards or sideways).

# INDEPENDENT TIED SCAFFOLDING

Independent tied scaffolding is a type of scaffolding that relies on its own weight for support. It is frequently employed in building and renovation projects. Independent tied scaffolding consists of two parts: the vertical supports, or standards, and the horizontal supports, or ledgers.







## SAFETY PRECAUTIONS

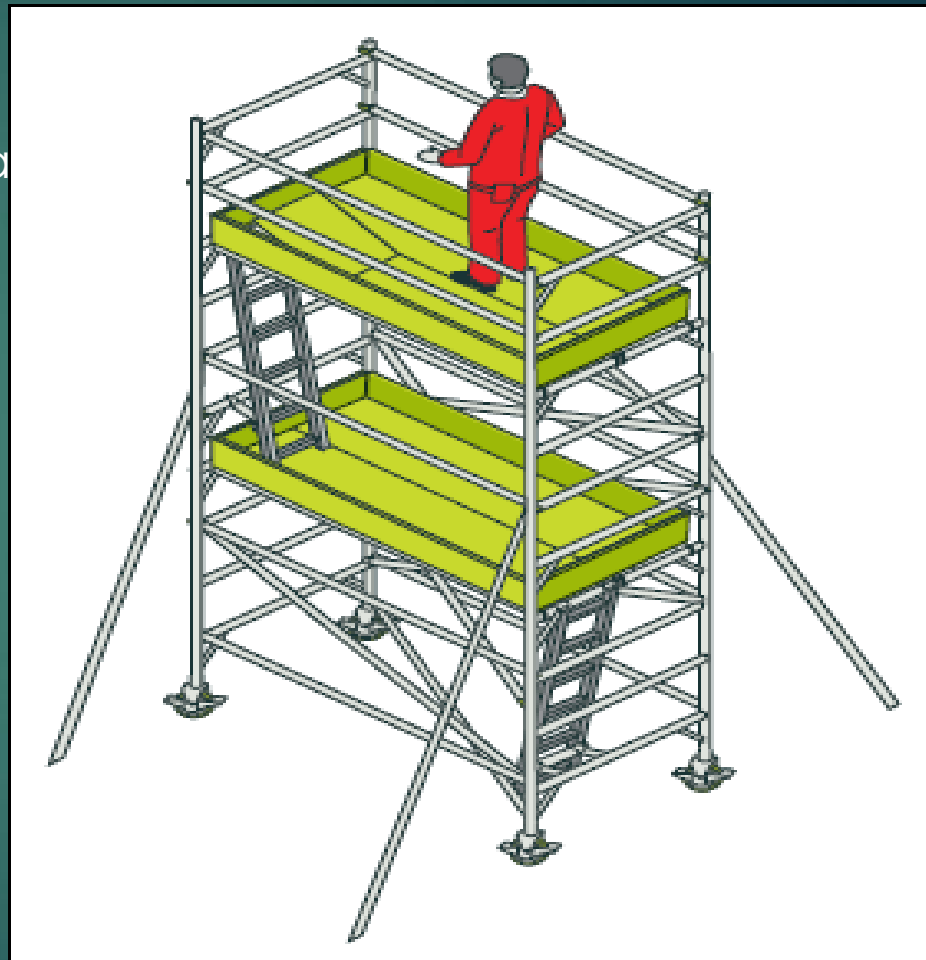
- Correctly designed for use and load.
- Designed for weather.
- Equipment to be used.
- Stable ground.
- Base plates and sole plates.
- Scaffold not damaged and in good condition.
- Erected by competent persons.
- Inspected before use.
- Scaffolders wearing fall-arrest equipment.
- Securely tied to structure/ building.
- Protected from vehicles.



## TOWER SCAFFOLDS

Key issues with tower scaffolds are

- Erection and dismantling
- Stability
- Precautions and inspection
- Using and moving





## ERECTION AND DISMANTLING

Towers should be erected following a safe method of work, either using:

- Advance guard rail system - in which temporary guard rail units are secured into position from the level below and pushed up to the platform level. Before the operator can access the platform to install the permanent guard rails, they are installed.
- "Through-the-trap" (3T) entails the operator assuming a working position in the trap door of the platform, from which they can add or remove guard rail components on the level above the platform. It is designed to prevent the operator from standing on an unprotected platform.



## STABILITY

To maintain tower stability you must make sure:

- The tower is resting on firm, level ground with the locked castors or base plates properly supported. Never use bricks or building blocks to take the weight of any part of the tower;
- stabilisers or outriggers are installed as instructed in the handbook; and
- Ensure a tower is never raised higher than the manufacturer's suggested height.



## MOBILE ELEVATING WORK PLATFORMS (MEWPS)

Key issues are:

- MEWP hazards
- Controlling the risk
- Training and competence
- Inspection, maintenance and examination



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## MEWP HAZARDS

**Entrapment:** operator caught between a portion of the basket and a fixed structure.

**Overturning:** The machine could topple, ejecting the operator from the basket;

**Falling:** a worker may fall from the basket while doing labor duties; and

**Collision:** It is possible for the car to collide with pedestrians, overhead power lines, or neighbouring vehicles.



## CONTROLLING THE RISK

It is essential to choose the appropriate MEWP for the task and location.

Plan and practice a method for rescuing someone from a MEWP; someone on the ground must know what to do in an emergency and how to handle the machine's ground controls.

A number of safeguards can be taken to limit the danger of MEWP hazards. They include:

**Ground conditions:** The platform must be utilized on solid, level ground. Temporary covers must be robust enough to sustain the applied force. Trenches, manholes, and uncompacted backfill are examples of localized ground features that might lead to overturning.



## CONTROLLING THE RISK

**Outriggers:** The outriggers must be extended and chocked before the platform can be raised. Spreader plates may be required; consult the equipment handbook for details.

**Guardrails:** Ensure that the work platform has effective safety rails and toe boards.

**Arresting falls:** If there is still a risk of individuals falling from the platform, a harness with a short work restraint lanyard must be connected to a proper manufacturer-provided anchorage point within the basket to prevent the user from falling from the carrier.

**Falling objects:** Enclose the area surrounding the platform to prevent falling tools or objects from hitting people below.

**Weather:** Strong winds can cause platforms to tilt and become unstable. Select a maximum wind speed that is safe for operation. Moreover, storms and snowfalls can destroy platforms. Before using the platform following severe weather, it must be inspected.

**Handling materials:** If utilized to install materials, consider the materials' weight and size, as well as any manual handling and load distribution concerns. You may require supplementary lifting equipment to transfer supplies to the job location.

**Nearby hazards:** Do not operate a MEWP in close proximity to overhead cables or other potentially hazardous equipment, or allow any portion of the arm to protrude into a traffic lane.

### Training and competence

### Inspection, maintenance and examination





# PREVENTION OF FALLING MATERIALS THROUGH SAFE STACKING AND STORAGE

## Dos

- Always stack materials on stable, level surfaces.
- Supply packing or pallets as required.
- Always utilize handling equipment.
- Replace manual handling with mechanical help.
- Do a risk assessment when manual manipulation cannot be avoided.
- Ensure that none of the material's sharp edges protrude towards the walkways.
- Keep hazardous products or chemicals with the accompanying Safety Data Sheet (SDS)).
- Conduct housekeeping to prevent clutter, remove trash, and remove flammable materials to reduce the risk of fire.
- If the little pipes are large, stack them in the holder with the stopper at the bottom.
- Keep items of varying lengths in distinct piles.
- While planning and installing the racks, ensure that there is sufficient separation to facilitate material loading, unloading, and stacking.
- Give an adequate method of access, such as a ladder, for employees who must climb or remove materials from stacks.
- Verify that the rigger and equipment operator have proper signaling and communication.
- Use drum rack for stacking drums.
- Use an appropriate manner of stacking, either vertically or horizontally, depending on the type of material.
- Install steel posts or other suitable barriers to prevent forklifts and other powered devices from damaging the corners or ends of shelves and racks.
- Instead of standing on boxes or other things, use a ladder.
- Employ proper PPE, such as hard helmet, gloves, safety shoes, etc.
- Fire protection partitions may be utilized to stack various combustible or flammable materials.
- Educate the employees on the safe stacking of materials.





# PREVENTION OF FALLING MATERIALS THROUGH SAFE STACKING AND STORAGE

## Don'ts

- Do not stack materials higher than three times the width of the base.
- Do not combine incompatible materials.
- Do not utilize a rack constructed of combustible materials and unlikely to retain water.
- Avoid leaning on temporary structures.
- Do not stack additional items on the displaced material.
- While handling, do not keep your legs close to the material or cargo, as it may tilt at any time.
- Do not stack or load/unload goods close to moving machinery or live electrical cables.
- Do not store fragile items at the bottom to prevent breaking.
- Do not stand on shelves, racks, crates, or seats.
- Do not stack materials to
  - block escape routes, emergency equipment, or walkways.
- Do not stack stuff inside 450 mm of a wall; this facilitates inspection.
- Do not place materials directly on the floor to prevent dampness or water accumulation.
- Do not utilize a defective pallet or dangerous rack, since they may cause the stacked materials to collapse.
- Do not use malfunctioning mechanical equipment or tools to stack the materials.



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# 8.3 SAFE WORKING IN CONFINED SPACES

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## CONFINED SPACES

As per the Confined Spaces Regulations 1997, a 'confined space' must have both of the following defining features:

(a) It must be a space that is substantially enclosed (though not always completely); and

(b) At least one of the risks must be present or reasonably foreseeable.

Some confined spaces, such as sewers and chemical storage tanks, are relatively easy to identify. However, identification is not always so straightforward because a confined space is not always:

(a) Some vessels, such as barrels, silos, and ship holds, may have open tops or sides;

(b) Some, such as grain silos and ship holds, can be quite spacious;

(c) Difficult to enter or exit – some have multiple entrances/exits, while others have large openings or appear to be easy to escape;



## EXAMPLES OF CONFINED SPACES

- (a) conduits, culverts, tunnels, boreholes, bored piles, manholes, shafts, excavations and trenches, sump pits, inspection and under-machine pits, and cofferdams;
- (b) Freight containers, ballast tanks, ships' engine rooms and cargo holds;
- (c) Buildings, building voids;
- (d) Some enclosed rooms (especially plant rooms) with compartments;
- (e) Enclosures designed for asbestos removal;
- (f) Areas used for the storage of oxidizable materials (such as steel chain storage rooms or wood pellet hopper tanks);
- (g) Rooms and silos with insufficient or no ventilation;
- (h) During fabrication or manufacture, structures that become confined spaces;
- (i) Interiors of machines, machinery, and vehicles.



## CONFINED SPACE HAZARDS

- Flammable materials and oxygen enrichment
- Excessive heat
- Toxic gas, vapour, or fume
- Oxygen deficiency
- The presence or intrusion of liquids
- Fluid-resistant solids Fluid-resistant solids can submerge a person, preventing him or her from breathing.
- Other hazards not unique to confined spaces - Other hazards (such as electricity, noise, collapse or subsidence of or within the space, loss of structural integrity, and those arising from mechanical equipment and working space) can be identified when assessing the risk associated with entering or working in a confined space.



# PRECAUTIONS

For safe working inside a confined space, the following must be ensured:

- i) A cross-functional team should assign identification numbers to all confined spaces in the plant/project areas.
- ii) The owner department/executing authority shall prepare a Safe Work procedure/protocol in conjunction with the Safety Officer following a thorough Hazard Identification & Risk Assessment or Job Safety Analysis (JSA).
- iii) Before workers are permitted to enter a space, the site must be inspected by the Safety officer, the owning department, and the Executing Agency.
- iv) All of the aforementioned representatives will sign the entry permit, which will then be approved by the respective HOD/ Section Chief of the owning/ executing Authority.
- v) The sign "Notice - Confined Space Entry Permit Required for Entry" must be prominently displayed. Warning signs and barricades must be erected to prevent unauthorised access to the work area where confined work is being performed.
- vi) Ensure that the confined space is devoid of all hazardous or corrosive substances, including gases, all types of fumes, chemicals, muck and solid wastes, etc. Additionally, it must be devoid of decaying vegetation and animal waste that could emit methane.



## PRECAUTIONS

- vii) For clearing smeared containment muck, solid waste, etc., the protocol must include a safe procedure.
- viii) It must be ensured that the confined space is completely separated from all utility systems, including inert gases, fuel gases, steam, water, and other fluid connections, using blank plates of the correct size, material of construction, and appropriate pressure rating, as required..
- ix) Ensure that the confined space has either natural or mechanical ventilation. It must also be capable of removing the fumes produced by various activities. A responsible individual from the relevant department must ensure that ventilation and rescue arrangements are adequate.
- x) Ensure that all moving equipment parts within the confined space are adequately guarded and that the power supply is disconnected using LOTO.
- xi) Provide sufficient illumination within the confined space. Every portable lighting system shall not exceed 24 Volt.
- xii) Ensure that all electrical equipment used in a confined space is either grounded, double-insulated, or equipped with an earth leakage cut-out safety system.





## PRECAUTIONS

xiii) A calibrated multi-gas detector (CO, O<sub>2</sub>, LEL) must be made available to workers for continuous monitoring of working conditions within a confined space (with ventilation off) in order to detect:

- a) Oxygen deficiency and Oxygen enriched atmosphere
- b) Presence of toxic substances, wherever applicable
- c) Explosive concentration, wherever applicable

xiv) It shall be ensured that all gaseous, toxic and explosive components are well within the prescribed limit before allowing the people to go inside.

xv) Continuous monitoring is required when the activity inside the confined space has the potential to alter atmospheric conditions or when there is a known activity occurring outside the confined space during entry that has the direct potential to alter atmospheric conditions inside the space. Periodic monitoring (not more than 2 hours apart) shall be done in the cases when the condition inside the confined space is not likely to be altered because of the work inside the confined space and/or activities being carried out in the surrounding space.

xvi) If the workmen are using oxygen consuming equipment (torches, burners etc) ensure that the confined space is continuously provided with sufficient air to maintain minimum Oxygen concentration of 19.0% to 23% by volume.

xvii) A authorised supervisor of the executing agency must be stationed outside the confined space with the sole task of monitoring the safe execution of work, sounding an alert, and providing prompt assistance, if necessary.



# PRECAUTIONS

xxx) Assigned Duties:

a) Authorized entrant -Authorized entrants are required to:

- Know space risks, including information on the sources of exposure such as inhalation or dermal absorption, signs of symptoms and repercussions of the exposure;
- Use the correct personal protection equipment;
- Maintain communication with attendants as required to allow them to monitor the entrant's condition and alert him or her to evacuate if necessary;
- Exit from the permit space as soon as possible when:
  - ❖ Ordered by the person who is responsible;
  - ❖ He or she is aware of the warning symptoms or signs of exposure;
  - ❖ A prohibited condition exists; or
  - ❖ An automatic alarm is activated.
- Notify the attendant when a forbidden condition exists or when exposure symptoms are present.



# PRECAUTIONS

## b) Attendant

The attendant is required to:

- Stay outside of the permit area during entrance operations unless replaced by an authorised attendant.
- Conduct non-entry rescues where the employer's rescue procedure specifies;
- Recognize existing and potential risks, including exposure mode, symptoms, consequences, and physiological impacts;
- Keep communication with workers entering the permit space and maintain an accurate record of their attendance;
- Order evacuation of the permit space when:
  - ❖ Existence of a banned condition;
  - ❖ A worker exhibits physiological symptoms of exposure to a hazard;
  - ❖ An emergency exists beyond the enclosed environment;
  - ❖ The attendant cannot execute required duties successfully and safely.
- Summon rescue and other services during an emergency;
- Ensure that unauthorised individuals keep clear of permit spaces or exit quickly if they have already arrived;
- Notify authorised entrants and the entry supervisor if an illegal individual enters the permit area; and
- Do no additional tasks that conflict with the attendant's principal responsibilities.



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# 8.4 LONE WORKING

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## WHO ARE LONE WORKERS AND WHAT JOBS DO THEY DO?

The definition of a lone worker is "someone who works alone without close or direct supervision." They exist in all industries and include:

- work alone at a permanent location, such as at stores, gas stations, factories, warehouses, or recreation centres;
- work separately from others on the same property or outside of typical business hours, such as security personnel, cleaners, and maintenance and repair personnel;
- Work at home;
- work away from a fixed base, such as:
  - Health, medical and social care workers visiting people's homes etc;
  - Construction, maintenance, and repair personnel, including engineers, plant installers, and cleaners;
  - Engineers, evaluators, and equipment and supply delivery personnel who attend building sites;
  - Service professionals, such as postal employees, taxi drivers, engineers, real estate agents, and sales or service representatives who visit homes and businesses;
  - Delivery drivers, such as HGV drivers, van driver/couriers, and car/motorcycle-based couriers;
  - Workers in agriculture and forestry;
- are individuals who work independently for charities or voluntary organisations (fundraising, litter-picking etc).

More information is available at: [www.hse.gov.uk/voluntary/](http://www.hse.gov.uk/voluntary/)



# LONE WORKING HAZARDS

**The lone employee and others** - You should evaluate the lone worker, the persons with whom they may interact, and the work they are performing, as well as how this may affect the risk:

- ❖ How experienced is the employee in their role and working independently?
- ❖ Has the employee received pertinent training?
- ❖ Is the employee susceptible for any reason, for instance, because they are young, pregnant, disabled, or a trainee?

**Environment and equipment** - Examine the worker's environment and the equipment they're utilising:

- ❖ Does the workplace provide a special risk to the employee, such as operating equipment by themselves or lifting heavy objects?
- ❖ Is the job located in a rural or remote area?
- ❖ Is the worker entering the house or property of a third party?
- ❖ Is there a secure entrance or exit for an individual working outside of typical business hours?
- ❖ Does the employee have sufficient and dependable methods of communication and a way to request assistance?

## How could the work trigger an incident?

Consider the activity being carried out by a lone worker and how it might trigger an incident:

- ❖ Is the position a security one, such as having responsibility over clients and enforcing rules?
- ❖ Does the job require handling cash, requesting payment, or taking property?

## Stress, mental health and wellbeing-

Lone working can negatively impact employees' work-related stress levels and their mental health.



## CONTROL MEASURES

- Keeping contact with lone workers
- Providing support on mental health
- Work-related violence
- What if a lone worker's first language is not English?
- What if a person becomes ill, has an accident, or there is an emergency?
- What if a lone worker is working from home?
- Training
- Supervision
- Monitoring and keeping in touch
- Responsibilities of workers





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# 8.5 SLIPS AND TRIPS

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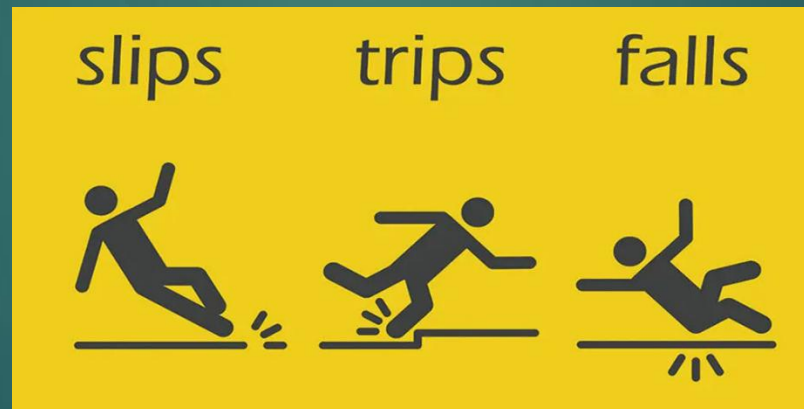


# CAUSES OF SLIPS, TRIPS AND FALLS

## Causes of Slips, Trips and Falls

Slip hazards are caused by:

- Wet or dusty floors;
- The overflow of wet or dry substances – oil, water, wheat dust, and plastic pellets used in the production of plastic – on slick surfaces;
- Wet and icy weather conditions;
- Unsuitable footwear, flooring, or sloped surfaces.





## CAUSES OF SLIPS, TRIPS AND FALLS

Trip hazards are caused by:

- Loose floorboards or carpets;
- Obstacles, low walls, and low floor fixtures;
- Cables or trailing leads across walkways or uneven surfaces;
- This results in the development of portable electrical hand tools and additional electrical appliances (vacuum cleaners and overhead projectors);
- Raised telephone and electrical sockets – also a severe trip hazard (this can be a significant the, when the display screen workstations are re-orientated in an office,);
- Rugs and mats – especially when worn or placed on a polished surface;
- Poor housekeeping – obstacles left on walkways, rubbish not removed regularly;
- Poor lighting levels – particularly near steps or other changes in level;
- Sloping or uneven floors – particularly where there is inadequate lighting or no handrails;
- Unsuitable footwear, including shoes with a slick sole or insufficient ankle support.



## RISK ASSESSMENT & MANAGEMENT CONTROL

There are four good management methods that must be used to accomplish this, and these are:

- **Planning:** Risk areas must be recognised, and any necessary improvements must be made immediately.
- **Organisation:** Some persons, typically a supervisor or manager, are responsible for ensuring the safety of specific sections of the workplace.
- **Control:** Checks to ensure that practises are being carried out appropriately and the implementation of any necessary interventions to mitigate risks.
- **Monitor & Review:** Slip, trip, or fall accidents involving patients, visitors, or staff must be closely monitored, and if a review reveals that additional interventions are necessary, they must be undertaken.



## GOOD WORKING PRACTICE

- **Spillages:** Remove all spills promptly. Use a cleaning agent as necessary. If the floor is wet, use the necessary signage to inform people that the floor is still wet and caution is required, or to suggest an alternate route.
- **Trailing cables:** Try to avoid placing equipment so that cables cross pedestrian walkways, and use cable guards when necessary.
- **Change of surface from wet to dry:** Provide appropriate footwear, warn of hazards with signage, and place doormats where these changes are likely to occur.
- **Rugs/mats:** Where they cannot be removed, ensure that rugs and mats are firmly attached and that their edges do not constitute a tripping hazard.
- **Slippery floor surfaces:** Evaluate the reason and treat accordingly, for instance by using chemical treatments and the proper cleaning products and processes. In certain instances, it may be necessary to repair or replace the floor surface.
- **Changes in level and slopes:** Enhance visibility, lighting, handrails, and traction and other floor marks.
- **Poor lighting:** Enhance lighting levels and placement to provide a more uniform lighting level across all floor surfaces.
- **Footwear:** Ensure employees select footwear with the appropriate type of sole. If the job requires specialised protective footwear, the employer must offer it at no cost.



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# 8.6 SAFE MOVEMENT OF PEOPLE AND VEHICLES IN THE WORKPLACE

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## HAZARDS TO PEDESTRIANS

- A lack of clearly marked, signed and segregated pedestrian routes and crossings
  - Blocked pedestrian routes
  - Pedestrians taking short cuts
  - Large numbers of pedestrians and vehicles using the same route at peak periods
  - Unsuitable and dangerous pedestrian routes
  - Narrow roads where there is not enough room for pedestrians and vehicles
  - Pedestrians being struck by vehicles because drivers can't see them
  - Pedestrians feeling unsafe and insecure when walking to and within a site
- Locked emergency doors and gates
- Pedestrian routes that have poor drainage and are prone to flooding



## CONTROL MEASURES

- Give pedestrians with proper crossing sites; Supply pedestrians with highly visible apparel
- Establish separate vehicular and pedestrian entrances to site structures
- Introduce a one-way system
- At peak periods limit or prevent use of busy routes
- Provide pedestrians with high-visibility clothing
- Provide barrier-separated pedestrian pathways
- Provide appropriate signage
- Maintain adequate illumination around the workplace



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# 8.7 WORK-RELATED DRIVING

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## HOW TO MANAGE WORK-RELATED ROAD SAFETY

**Plan** – Explain your organization's health and safety management strategy and how you intend to implement it.

**Do** – Prioritize and manage your risks, consult your personnel, and train and enlighten them.

**Check** – Evaluate your performance

**Act** – Analyse your performance and gain insight from your experiences.



## SAFE DRIVER

- Are your drivers properly trained?
- Do you ensure your drivers have clear instructions about how to keep themselves safe while on the road?
- Are your drivers sufficiently fit and healthy to drive safely and not put themselves or others at risk?
- Do you know your duties under health and safety law when employing contractors and subcontractors?



## SAFE VEHICLE

- Are vehicles fit for the purpose for which they are used?
- Are vehicles maintained in a safe and fit condition?
- Are you sure that drivers' health, and possibly safety, is not being put at risk, e.g. from an inappropriate seating position or driving posture?



## SAFE JOURNEY

- Do you plan routes thoroughly?
- Are work schedules realistic?
- Do you allow enough time to complete journeys safely?
- Do you consider poor weather conditions, such as snow or high winds, when planning journeys?



## END OF SESSION QUIZ

1. Which of the following is a risk control measure for a 'scaffolding platform without edge protection' ?

(Choose the correct option)

1. Providing Dust Masks
2. Installation of Guard Rails and Toe Boards around
3. Install Fire Extinguishers



## END OF SESSION QUIZ

'Oil Spillage' belongs to which of the following Hazard categories?

(Choose the correct answer)

1. Slips and Trips
2. Hazardous Substances
3. Work at Height



## END OF SESSION QUIZ

Which of the following is a Confined Space Hazard?  
(Choose the correct option)

1. Oxygen Deficiency
2. Stress at work



## END OF SESSION QUIZ

What does MEWP stands for?

(Choose the correct answer)

1. Mobile Elevated Work Platform
2. Mobile Estimated Work Platform
3. Mobile Estimated Working Platform





## END OF SESSION QUIZ

A sloping ladder must be sited at an angle of .....

(Choose the correct answer)

1. 60 degree
2. 45 degree
3. 75 degree