

## Walking and Working Surfaces

**Slips and falls on walking surfaces constitute the majority of general industry accidents**



These injuries can occur almost anywhere at any time

**A few surfaces can be ignored, including everything from:**

- Asphalt Roads
- Concrete walks
- Wooden
- Tiled
- Special surfaces on stairs and conveyances (such as: Moving sidewalks, escalators, elevators)
- Bridges
- Catwalks

**OSHA standards for walking and working surfaces apply to all permanent places of employment, except where domestic, mining or agricultural work only is performed**

**The OSHA walking and working surfaces standard includes:**

- Housekeeping
- Aisles and Passageways
- Covers and Guardrails
- Floor Loading Protection
- Portable Ladders
- Fixed Ladders
- Safety Requirements for Scaffolding
- Other Working Surfaces

## Housekeeping

- All places of employment, passageways, storerooms, service rooms and work areas should be kept clean and orderly and in a sanitary condition.
- Every workroom floor should be maintained in a clean and so far as possible, a dry condition
  - *Where wet processes are used, drainage should be maintained and gratings, mats or raised platforms should be provided*
- Every floor, working place and passageway should be kept free from protruding nails, splinters, holes or loose bolts



## Aisles and Passageways

- Keep clear and in good repair with no obstruction across or in aisles that could create a hazard
- Permanent aisles and passageways should be appropriately marked
- Aisles should be wide enough where mechanical handling equipment is used

## Covers and Guardrails

- Covers and or guardrails should be provided to protect personnel from the hazards of:
  - Open Pits
  - Tanks
  - Vats
  - Ditches, etc.



## Floor Loading Protection

- No load should be placed on any floor or roof of a building or other structure that is greater than its load-rating limit

## Portable Ladders

- Portable stepladders longer than 20 feet should never be used
- Stepladders should be equipped with a metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open position
- Single ladders longer than 30 feet should not be used
- Extension ladders longer than 60 feet should not be used
- Ladders should be maintained in good condition at all times
- Ladders should be inspected frequently and those which have developed defects or destruction and tagged or marked as "Dangerous, Do NOT Use".
- Ladders should be placed with a secure footing, or they should be lashed or held in position
- Ladders used to gain access to a roof or other area should extend at least 3 feet above the point of support
- The foot of a ladder should, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is  $\frac{1}{4}$  of the working length of the ladder (the length along the ladder between the foot and the support)
- The worker should always face the ladder when climbing up or down
- Short ladders should not be spliced together to make a long ladder
- Ladders should never be used in the horizontal position as scaffolds or work platforms
- The top of a regular stepladder should never be used as a step
- Use both hands when climbing up or descending down on ladders
- Never use metal ladders near electrical equipment



## Fixed Ladders

- Fixed ladders, with a length of more than 20 feet to a maximum unbroken length of 30 feet must be equipped with cages or a ladder safety device
- A "cage" is a guard that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder
- Cages must extend a minimum of 42 inches above the top of a landing, unless other acceptable protection is provided
- Cages must extend down the ladder to a point not less than 7 feet, or more than 8 feet above the base of the ladder
- A ladder safety device is any device, other than a cage or well, designed to eliminate or reduce the possibility of accidental falls and must incorporate such features as life belts, friction brakes and sliding attachments.
- Another feature of fixed ladders is the landing platform, which provides a means of interrupting a free fall and serves as a resting place during long climbs
- When fixed ladders are used to ascend to heights exceeding 20 feet (except on chimneys), landing platforms must be provided for each 30 feet of height or fraction thereof when cages are used, except that, where no cage, well or ladder safety device is provided, landing platforms must be provided for each 20 feet of height or fraction thereof.
- Ladder safety devices may be used on towers, water tanks, and chimney ladders over 20 feet in unbroken length in lieu of cage protection. No landing platform is required in these cases.



## Safety Requirements for Scaffolding

- There are a number of different types of scaffolds available, and 1910.28 should be reviewed carefully for special requirements which apply to each type

### Some of the general requirements that apply to scaffolds are:

- The footing or anchorage for scaffolds must be sound, rigid and capable of carrying the maximum intended load without settling or displacement. Unstable objects, such as barrels, boxes, loose brick or concrete blocks, must not be used to support scaffolds or planks
- Scaffolds and their components must be capable of supporting at least four times the maximum intended load

- Scaffolds must be maintained in a safe condition and must not be altered or moved horizontally while they are in use or occupied
- Damaged or weakened scaffolds must be immediately repaired and cannot be used until repairs have been completed
- A safe means must be provided to gain access to the working platform level through the use of a ladder, ramp, etc
- Guardrails midrails and toe boards must be installed on all open sides and ends of platforms more than 10 feet above the ground or floor. Wire mesh must be installed between the toe board and the guardrail along the entire opening, where persons are required to work or pass under the scaffolds
- Overhead protection must be provided for personnel on a scaffold exposed to overhead hazards
- Employees must no work on scaffolds during storms or high winds or when scaffolds are covered with ice or snow



### **Other Working Surfaces**

- Portable dock boards (bridge plates) must be secured in position, either by being anchored or equipped with devices that will prevent their slipping
- Movement of the dock board during material handling operations has resulted in forklifts overturning, or falling off the dock, often with serious injury or death to the driver and damage to equipment and material
- Handholds must be provided on portable dock boards to permit safe handling when the dock board must be repositioned or relocated.
- Mud, snow, dirt and moisture can change the natural properties of any surface, creating hazards
- Moisture absorbent mats, runners or rugs can reduce such hazards
- Floor maintenance requires special attention to eliminate the hazard of torn or curled-up floor covering
- Implement administrative controls to ensure that these hazards are quickly removed
- Floors, stairs and other walking surfaces should be kept non-slippery, clear and in good repair



Snow and Mud can change walking surfaces



Hand hold bridge safety



Bridge



Door Mat



Snow changes walking surfaces



Bridge



Snow and Mud can change walking surfaces



Housekeeping a must



Door mats for safety

## Overview

- Housekeeping is an important factor in all work environments and plays a vital role in maintaining a safe work environment for you and your co-workers
- All aisles and passageways should be kept clear and in good repair with no obstruction across or in aisles that could create a hazard
- Covers and or guardrails should be provided to protect personnel from the hazards of open pits, tanks, vats, ditches, etc.
- Load rating limits should be conspicuously posted
- All ladders should be inspected frequently and maintained properly to ensure their safety
- There is a number of different types of scaffolds available, and 1910.28 should be reviewed carefully for special requirements, which apply to each type
- Portable dock boards or bridge plates must be secured in position, either by being anchored or equipped with devices that will prevent their slipping
- Surfaces can change substantially when people track in mud, snow, dirt and moisture
- Administrative controls should be implemented to ensure that these hazards are quickly removed