



MONTHLY SAFETY BRIEF: WALKING WORKING SURFACES – SCAFFOLDS

As consultants, we find ourselves in many different environments – construction sites, abatement sites, mechanical rooms, roofs, on scaffolds, next to traffic and rail cars, etc.. Each of these areas pose different risks and difficult and sometimes dangerous walking-working surfaces that need to be navigated and managed properly. Unfortunately, we were reminded of this recently from two separate instances/accidents involving asbestos abatement workers from one of the firms we work with often. The following describes the events that should be used as lessons learned of what to do and not to do:

1. The first incident occurred in a boiler room at a downtown university. An abatement worker was looking for an outlet to plug in a piece of equipment against an outer wall of the boiler room. In his pathway there was a piece of cardboard on the floor. As he stepped on the cardboard he fell through the cardboard and into a steam/water trap for the boilers. One leg went in up to his mid-thigh and the other half way up his calf. By the time the paramedics got him to the hospital the skin on his legs were rolled up on his ankles like “flesh socks”. He has gone through his first round of skin grafts and will need several surgeries before all is said and done and it is unknown what the long-term nerve damage may be. The current prognosis is that he will be off work for a year. **“NEVER”** assume that garbage or items left on a floor or walking surface is covering up “solid ground/floor surface!! You can only imagine what could have been the outcome if the worker fell forward/head and arms first into the steam pit.
2. The second incident involved a fall from a baker’s scaffold during an asbestos abatement project. Apparently, there was an area that was inaccessible to the scaffold because one of the railing systems on one side were in the way. This rail was removed to access the area of work, but at some point, the worker fell approximately 12 feet to the floor and broke his hip and fractured his wrist. The worker is scheduled to be off work for eight weeks. Obviously, under no circumstances should a guardrail be removed from a scaffold.

This Safety Brief covers the basics on walking working surfaces and scaffold use that we all need to be constantly aware of. Many workers injured every year due to slips, trips, or falls generated by improper walking and working surfaces. Most of these accidents can be prevented if proper safety precautions are initiated. Slips, trips, and falls can be caused by conditions such as ice, standing water, grease, polished floors, loose flooring or carpeting, uneven walking surfaces, poorly placed electrical cords, and damaged ladder steps. The controls needed to prevent these hazards are usually relatively simple, such as keeping walkways and stairs clear of debris, coiling up extension cords and hoses when not in use, keeping electrical and other wires out of the way, wearing appropriate footwear, and clearing parking lots, stairs, and walkways in snowy weather.

The following provides general information on walking/working surfaces hazards and prevention.

- All work areas, hallways, storerooms, and restrooms shall be kept clean, orderly, sanitary, and free of slip, trip and fall hazards.
- Sufficient illumination must be provided in all areas.
- All exit doors and egress paths shall be kept free of obstructions at all times.
- Guardrail systems consist of a top rail 42 inches high and must withstand a force of at least 200 pounds. A midrail must be located midway between the toprail and toeboard and be able to withstand a force of at least 150 pounds. A toeboard is 3.5 inches from the working level and must withstand 50 pounds.
- Whenever loads or single items exceeding 350lbs are to be placed on roofing structures, employees must determine the safe load capacity before taking this action. Loft areas used for storage must have the rated capacity posted.



- Covers and/or guardrails shall be provided to protect personnel from the hazards such as open pits, tanks, vats, ditches, stairways, ladderways, hatchways, skylights, pit/trap doors, manholes, floor holes, chutes, window wall openings, open-side floors and platforms. Skylight floor openings and holes shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides.
- OSHA's construction fall protection rule, 29 CFR Subpart M §1926.500, defines these terms as follows:
 - "Hole means a gap or void 2 inches (5.1 cm) or more in its least dimension, in a floor, roof, or other walking/working surface."
 - "Unprotected sides and edges means any side or edge (except at entrances to points of access) of a walking/working surface, e.g. floor, roof, ramp, or runway where there is no wall or guardrail system, at least 39 inches (1.0 m) high."
- Wall openings from which there is a drop of more than 4 feet shall also be guarded.

If you are in the situation where you are needed to use a scaffold, call your project manager prior to use. You must be properly trained before any use. The following provides general information on scaffold hazards and prevention.

- No scaffold shall be erected, moved, dismantled, or altered except under the supervision of a competent person. He must also have the authority to take prompt corrective action to protect employees from any hazards or dangers associated with the scaffolding.
- All scaffold components must be capable of supporting, without failure, at least four times the maximum intended load, including the footings. Never build scaffolds on objects such as barrels, boxes, loose bricks, concrete blocks, etc.
- All scaffold components shall be inspected by a competent person before each daily use. Check for cracks or bent parts, connectors, bracing, guard rails, access ladders, and footings. Never use any equipment that is damaged. You should also conduct this inspection prior to use.
- Guard rails (minimum 38" high) and toe boards (minimum 4" high) shall be installed on all open sides and ends of platforms more than 10 feet above the ground. Scaffolds 4 feet to 10 feet high shall have standard guardrails installed on all open sides and ends of the platform.
- All scaffold working platforms must be fully planked or decked. All planking must be scaffold grade material and extend over end supports not less than 6" nor more than 12".
- An access ladder or equivalent means of safe access must be provided.
- Scaffold platforms must be kept free of rubbish, snow, ice, oil or grease.

In summary, be aware of your surroundings at all times and pay attention to your walking working surfaces. This is especially true in unfamiliar work areas, during inclement weather and when wearing PPE.



WALKING WORKING SURFACES – SCAFFOLDS QUIZ

1. Which of the following are important in preventing walking working surface accidents?
 - a. keeping walkways and stairs clear of debris,
 - b. coiling up extension cords and hoses when not in use,
 - c. wearing appropriate footwear,
 - d. all of the above.

2. When trash, cardboard or plastic sheeting is on the floor, it is safe to walk on the surface when you:
 - a. are with another employee or worker to help you if you fall,
 - b. your supervisor or client tells you the surface is safe to walk on,
 - c. everybody else is already,
 - d. never, unless you have safely investigated the surface below the coverage item and solid walking surface is present below.

3. What should you look for before using a scaffold (Circle all that apply)?
 - a. Constructed on level ground
 - b. No damaged or missing rails or platforms
 - c. Free of debris
 - d. Not painted

4. If there is some debris from work on the scaffold but it can easily be worked around it is okay to continue?
 - a. Yes
 - b. No

5. Why when erecting the scaffold must competent person be present?
 - a. So they are smart enough to put it together
 - b. So it will not fall
 - c. So he can boss workmen around
 - d. So he can take corrective measures to protect workers from any hazards

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SCORE: PASS / FAIL

Employee Signature



Supervisor Signature

Date