

Ownership matrix	RPP-27195
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1.0 PURPOSE AND SCOPE

This standard establishes requirements and responsibilities to ensure safe walking and working surfaces to prevent injuries from slips, trips, and falls. This standard is not a design document, refer to TFC-ESHQ-FP-STD-02.

This document applies to all Washington River Protection Solutions LLC (WRPS) and subcontractor employees.

2.0 IMPLEMENTATION

This standard is effective on the date shown in the header.

3.0 STANDARD

(5.1.1, 5.1.2, 5.1.3, 5.1.4, 5.1.5, 5.1.6, 5.1.7, 5.1.8, 5.1.9 5.1.10)

3.1 General Requirements

Managers and Supervisors:

1. Ensure all walking/working surfaces are maintained free of tripping hazards and other hazards that could result in slips, trips or falls.
2. Ensure all walking/working surfaces in construction work places are maintained free of hazards that could result in injury and that guardrail systems or other fall protection systems are provided.
3. Ensure that wall openings from which there is a drop of more than four feet are guarded by a rail, or equivalent barrier, and that every open-sided floor or platform four feet or more above ground level is guarded by a guardrail system. A guardrail system consists of a top rail at 42 inches, a mid-rail, and toe board. Floor openings or ladder ways shall be guarded by a railing, cover, or appropriate barrier.
4. Ensure that any floor, roof, or other working/walking surface opening (12 inches or greater in diameter) or hole (2 inches to 12 inches in diameter) cover is secured and verified to withstand two times the intended load.
5. Ensure that any floor, roof, or other working/walking surface opening or hole covered with a temporary cover is labeled "Danger –Hole" and/or color coded orange to provide warning of the hazard. All temporary covers are intended to be used for 180 days or less.
6. Ensure aisles and passageways are appropriately marked and kept clear and in good repair with no obstructions across or in aisles that could create a hazard.

7. Ensure fixed industrial stairs are provided where an operation necessitates regular travel between levels and to prevent employee exposure to harmful substances or hazardous conditions such as carrying tools or equipment by hand. A stairway or ladder must be provided at all worker points of access where there is a break in elevation of 19 inches (48 cm) or more **and** no ramp, runway, embankment, or personnel hoist is provided.
8. Ensure stairways are installed at least 30 degrees, and no more than 50 degrees, from the horizontal.
9. Ensure that walking/working surfaces on which employees are to work have the strength and structural integrity to safely support the employees, intended work activities, and equipment or storage anticipated for the area and no load greater than that approved by the building official is placed on any floor or roof of a building or other structure.
10. Ensure handrails are installed for stairs with four or more risers or those over 30 inches high.
11. Ensure the height of a handrail for stairs is not more than 37 inches (94 cm), nor less than 30 inches (91.5 cm) from the upper surface of the handrail to the surface of the tread.
12. Ensure stair rail systems and handrails are surfaced to prevent injuries such as punctures or lacerations and to keep clothing from snagging.
13. Ensure handrails provide an adequate handhold for employees to grasp to prevent falls.
14. Ensure the ends of stair rail systems and handrails are constructed to prevent dangerous projections such as rails protruding beyond the end posts of the system.
15. Ensure temporary handrails have a minimum clearance of 3 inches (8 cm) between the handrail and walls, stair rails systems, and other objects.
16. Ensure unprotected sides and edges of stairway landings are provided with standard 42-inch (1.1 m) guardrail systems. Stairway platforms shall be no less than the width of a stairway and a minimum of 30 inches in length measured in the direction of travel.
17. Ensure that guardrail systems for walking/working surfaces in permanent structures are provided when the difference in elevation is four feet or greater. Ensure temporary floor openings or ladder ways are covered or protected with guardrail systems.
18. Ensure stairs or ramps are provided for elevated areas used on a routine basis.
19. Ensure that stair treads are slip resistant and their leading edges, or nosings, are visible, and that the nosing has a non-skid finish.

It is often difficult to see stair edges where treads and landings are similar in color pattern.
20. Provide lighting commensurate with the activity in the area, with a minimum general lighting of 5-foot candles.

21. Remind employees that they have the responsibility to be alert for ice and snow hazards in and around their work areas.
22. Ensure an ice-melt is applied to outside walking and work areas.
23. In accordance with TFC-BSM-FPM_PR-C-13, ensure ice and snow hazards do not prevent safe access to and from work areas (designated walkways, possible snow removal).
24. Ensure that ice and snow are removed from facility emergency response staging areas and accesses to designated staging areas.

All personnel shall comply with the following requirements:

1. Keep work surfaces orderly, free of tripping hazards, and free of other hazards that could result in injury.
2. Ensure safe access is provided to the work area and a safe means of egress from the work area to a place of safety is available prior to performing work activities.
3. Arrange materials in a stable manner so that they do not protrude into the walkway.
4. If materials are stored above work surfaces, place them back from edges or behind protective barriers to protect those working below.
5. Keep interior walkways dry.
 - a. Clean up spills or mark the area with safety barricades until the spill can be cleaned up.
 - b. Walkways where water is constantly present should have a raised surface or grating, as necessary, to provide a non-skid surface.

3.2 Floor and Roof Strength

Management or Building Manager/designee:

1. Posts floor loading limits where the floor loading is not controlled, such as in storage areas on mezzanines.
 - Post the area design load limit in areas where the load amount and location is changing, such as in storage areas on elevated floors or above basements.
 - Grade or slab construction does not require posting floor loading limits.
2. Ensures that an evaluation is performed when additional loading is being considered or when there is a change to storage occupancy. This should be performed by a structural engineer.

Fireproof or security type cabinets and floor to ceiling retrieval systems may exceed the concentrated load limit in an office.

3. Ensures that when a roof becomes a walking/working surface the roof is strong enough to support the intended work activities and equipment use anticipated for the project. A listing of roof inspection reports is maintained by Facilities & Property Management.
4. Verifies that all roofs serving as a walking or working surface pass an engineering inspection using a WRPS Roof Assessment (form A-6004-413). New facilities engineering inspection reports will be sent to Facilities & Property Management. Roof Assessments must be in accordance with DOE-0346, "Hanford Site Fall Protection Program (HSFPP)", Appendix E: Roof Access.
5. After the roof inspections are completed, the River Protection Project (RPP) documents should be revised to include the new inspection. The list of RPP documents can be obtained from Facilities & Property Management. The inspection report shall be released against the appropriate RPP document in accordance with TFC-ENG-DESIGN-C-25.
6. Ensures an engineering inspection, as requested by Facilities & Property Management, is performed any time a walking/working surface, or any other portion of a facility, is suspect or could possibly be structurally unsafe.

Employees Assigned to Perform Work on a Roof:

The work team will perform a pre-job walk-down of a roof to evaluate its safety as a walking or working surface. Safety, engineering, and property management/delegate will support this walkdown, as needed. The purpose of the walkdown of the roof is to determine if the condition varies significantly (a hazard may exist) with that indicated in the most recent record inspection. If the condition is found to significantly vary from the most recent inspection, work will be terminated and the roof barricaded until an inspection can be performed.

3.3 RECORDS

If requested by Facilities & Property Management, the roof assessment report shall be released as a supporting document in accordance with TFC-ENG-DESIGN-C-25.

4.0 DEFINITIONS

No terms or phrases unique to this Standard are used.

5.0 SOURCES

5.1 Requirements

- 5.1.1 10 CFR 851, "Worker Safety and Health Program."
- 5.1.2 29 CFR 1910.22, "Walking-Working Surfaces – General Requirements."
- 5.1.3 29 CFR 1910.23, "Walking-Working Surfaces – Guarding Floor and Wall Openings and Holes."

- 5.1.4 29 CFR 1910.24, “Walking-Working Surfaces –Fixed Industrial Stairs.”
- 5.1.5 29 CFR 1910.176, “Handling Material – General.”
- 5.1.6 29 CFR 1910, Subpart E, “Exit Routes and Emergency Planning.”
- 5.1.7 29 CFR 1926, Subpart M, “Fall Protection.”
- 5.1.8 29 CFR 1910, Subpart N, “Materials Handling and Storage.”
- 5.1.9 29 CFR 1926, Subpart X, “Stairways and Ladders.”
- 5.1.10 NFPA 101, “Life Safety Code.”

5.2 References

- 5.2.1 DOE-0346, “Hanford Site Fall Protection Program.”
- 5.2.2 TFC-BSM-FPM_PR-C-01, “Property Management.”
- 5.2.3 TFC-BSM-FPM_PR-C-13, “Winterization and Snow Removal Procedure for Tank Operations Contractor Facilities.”
- 5.2.4 TFC-BSM-FPM_PR-C-17, “Facility Management.”
- 5.2.5 TFC-ENG-DESIGN-C-25, “Technical Document Control.”
- 5.2.6 TFC-ESHQ-FP-STD-02, “Fire Protection Design Criteria.”