

**Requirements Documents**

**HMIS-RD-SP-10321**

**Walking-Working Surfaces**

Revision 1, Change 0

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Program: Safety, Health & Radiological Protection

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- No USQ Required

**JHA:** Administrative

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## **Change Summary**

### **Description of Change**

Review of procedure finds some inaccurate citations and requirements that need to be addressed

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## 1.0 PURPOSE

This document establishes the requirements for providing safe walking and working surfaces to prevent injuries from slips, trips, and falls. This RD is based on the requirements of Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910 Subpart D, Walking Working Surfaces for general industry and 1926 for construction as noted in sections 3.1, 3.2 and 3.3 of this document. The following walking and working surfaces are included in this document:

- Stairways
- Floor and Roof Strength
- Housekeeping, Aisles and Passageways

NOTE 1: Fall protection requirements for walking-working surfaces including protection from falling into or through floor and wall openings are provided in DOE-0346, Hanford Site Fall Protection Program. Temporary hole covers are to be clearly mark “Hole Cover – Do Not Remove” on floor opening covers.

NOTE 2: Requirements for purchasing, field use and inspections of ladders are provided in HMIS-RD-SP-24243.

NOTE 3: Requirements for the design, construction, maintenance, inspection, use and dismantling of scaffolding are provided in HMIS-PRO-SP-095.

## 2.0 SCOPE

This Level 1 Requirements Document is applicable to Hanford Mission Integration Solutions employees and subcontractors whose personnel perform work on the Hanford site with the exception of action by Emergency Response personnel. The Hanford Fire Department would respond to situations involving possible roof access according to guidelines consistent with their training based on the International Fire Service Training Association material. The Hanford Patrol is exempt from the requirements of this document when responding to emergency response actions.

This document supports implementation of ISMS Core Function #2 “Identify and Analyze the Hazards”, Core Function #3 “Develop and Implement Hazard and Environmental Controls”, and Core Function #4 “Perform Work Within Controls”.

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### 3.0 REQUIREMENTS

#### 3.1 Stairways

NOTE: Under the requirement "type" column, "V" means verbatim and "I" means interpreted.

#	Requirement	Type V or I	Source
1.	Provide stairs, a ladder or a ramp for elevated areas that are accessed routinely and inspect as necessary to ensure they are maintained in a safe condition.	I	1926.1051(a) 1910.22(c)
2.	Provide handrails for stairs with 4 or more risers or those over 30 inches high, whichever is less. Handrails are installed between 30 – 38 inches as measured from the leading edge of the stair tread to the top surface of the handrail.	I	1926.1052(c) 1910.28(b)(11) 1910.29(f)
3.	Ensure handrails are smooth surfaced with a shape that allows employees to firmly grasp and are installed with a minimum clearance of 2.25 inches from any other object.	I	1910.29(f)
4.	Ensure that a landing is provided when a door or gate opens up directly onto a stairway. The landing shall be at least as wide as the stairway and be a minimum of 30 inches in length measured in the direction of travel. The swing of the door or gate shall not reduce the usable depth of the landing to: less than 20 inches for platforms installed prior to January 17, 2017; or less than 22 inches for platforms installed on or after January 17, 2017.	I	1910.25(b) 1926.1052(a)(4)
5.	Ensure stairs have uniform riser heights and tread depths. After January 17, 2017, standard stairs shall be installed at an angle between 30 – 50 degrees from the horizontal and have a maximum riser height of 9.5 inches and a minimum tread depth of 9.5 inches.	I	1910.25(b) 1910.25(c)
6.	Ensure a guard rail or stair rail system is installed on stairway landings that are 4 feet or more above a lower level. Stair rail systems installed after January 17, 2017 shall not be less than 42 inches measured from the leading edge of the stair tread to the top rail.		1910.28(b)(11)
7.			
8.			

NOTE: Employees may print off this document for reference purposes but are responsible to check HMIS Procedure System to ensure the most current version is used to prevent unintended use of obsolete versions.

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#	Requirement	Type V or I	Source
9.			
10.			
11.			
12.			
13.			
14.			
15.			

### 3.2 Floor Loading and Roof Structural Integrity

NOTE: Ensure that the facility landlord has confirmed that floors have the structural strength to support the intended work activities and equipment or storage anticipated for your work area where the floor is elevated.

#	Requirement	Type V or I	Source
1.	In construction activities, the weight of stored materials on floors within buildings and structures shall not exceed maximum safe load limits. Conspicuously post maximum safe load limits of floors within building and structures in pounds per square foot, in all storage areas, except when the storage area is on a floor or slab on grade.	V	1926.250(a)(2)
2.	In buildings and structures not undergoing construction activities, ensure that each walking working surface can support the maximum intended load for that surface.  <i>Note: There is no requirements for the posting of load limits in buildings and structures not undergoing construction activities. It is important to ensure that structural engineers review floor loading when load limits of the structure might exceed design limits. For example fireproof or security-type cabinets and floor-to-ceiling retrieval systems may exceed the concentrated load limit in an office and will need to be evaluated by a structural engineer to ensure building integrity.</i>	V	1910.22(b)
3.	Prior to personnel accessing any roof, verify an analysis of the roof's structural stability/integrity has been completed and	I	1926.501

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#	Requirement	Type V or I	Source
	any necessary protective measures have been identified and implemented. Refer to DOE-0346 for fall protection requirements related to roof work and HMIS-PRO-SP-48856 for roof assessments.		10 CFR 851

### 3.3 House keeping, Aisles and Passageways

#	Requirement	Type V or I	Source
1.	The floor of every workroom, passageway, store room and service room shall be kept free of tripping hazards or other hazards that could result in injury. Floors within work areas, passageways and aisles must also be kept clean and, to the extent feasible, in a dry condition.	I	1910.22(a) 1926.25 1926.250(c)
2.	Floors and other walking-working surfaces shall be maintained free of sharp or protruding objects, loose boards, leaks, spills, snow, and ice.	V	1910.22(a)
3.	Where mechanical handling equipment is used, sufficient safe clearances shall be allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard. Permanent aisles and passageways shall be appropriately marked. Ensure that there are no obstructions in or near the aisle or passageway that would create a hazard.	I	1910.176(a) 1926.250

## 4.0 SOURCES

### 4.1 Source Requirements

10 CFR 851, Worker Safety and Health Program, *Section 23* "Safety and Health Standards"  
 29 CFR 1910 *Subpart D, Walking-Working Surfaces*  
 29 CFR 1910.176, *Handling Materials - general*  
 29 CFR 1926.25 *Housekeeping*  
 29 CFR 1926.501, *Duty to Have Fall Protection*  
 29 CFR 1926.1051(a), *General Requirements*  
 29 CFR 1926.1052(c)(1), *Stairways*

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29 CFR 1926.250, General Requirements for Storage

## 4.2 References

HMIS-PRO-RM-10588, *Records Management Processes*  
HMIS-PRO-RM-32281, *Electronic Records Management*  
HMIS-PRO-SP-48856, *Roof Assessment Process*  
DOE-0346, *Hanford Site Fall Protection Program*  
HMIS-RD-SP-24243, *Portable and Fixed Ladders*  
HMIS-PRO-SP-095, *Scaffolding*