

# **FACILITY INSPECTION**

## **WALKING SURFACES, GUARDING FLOOR and WALL OPENINGS and HOLES, FIXED INDUSTRIAL STAIRS, and PORTABLE and FIXED LADDERS AFOSH STD 91-501, Chapter 7**

### **INTERIOR AND EXTERIOR SURFACES**

#### **Interior Walking and Working Surface**

1. Are machines positioned so it will not be necessary for an operator to stand in a passageway, aisle, or exit access? (Reference paragraph 7.3.1.1.1.)
2. Are at least 18 inches provided for passageways through or between obstructions? (Reference paragraph 7.3.1.1.4.)

#### **Conditions**

3. Are floors kept in good condition and free of defects that endanger workers or interfere with the handling of materials? (Reference paragraph 7.3.1.2.)
4. Are floors free of obstructions that could create a tripping hazard or hinder people leaving the area during emergencies? (Reference paragraph 7.3.1.2.)
5. Are floors of all shops, service rooms, halls, and storerooms kept clean and free of slippery substances? (Reference paragraph 7.3.1.2.2.)
6. Are drip or oil pans used whenever the possibility of spilling or dripping exists? (Reference paragraph 7.3.1.2.2.)
7. When floors are being cleaned or finishing compounds are being applied, are signs posted to warn workers of a slipping hazard? (Reference paragraph 7.3.1.2.5.)
  - a. Do the signs remain in place until the floors are dry?
  - b. Are these caution signs yellow with black lettering?
8. Are passageways, aisles, and exit accesses kept clear for easy access to emergency equipment and to enable fire fighters to reach a fire, if necessary? (Reference paragraph 7.3.1.2.7.)
9. Are areas adjacent to fire sprinkler control valves, fuse boxes, and electrical switch panels clear and unobstructed? (Reference paragraph 7.3.1.2.7.)

#### **Loading Capacity**

1. Are signs identifying the floor load capacity permanently installed, in plain view of all workers? (Reference paragraph 7.3.1.3.)

### **Floor Sloping, Drains, and Separators**

1. Are drains provided when floors are subject to water, moisture, flooding, or when wet processes are used? Are drains kept clear to prevent clogging? (Reference paragraph 7.3.1.4.)

### **Illumination**

1. Are all aisles, passageways, and work areas adequately lighted? (Reference paragraph 7.3.1.5.)

### **Guards for Floor and Wall Openings**

1. Are all floor openings, such as hatchways, chutes, pits, trap doors, manholes, and ladderways properly guarded? (Reference paragraph 7.3.1.6.)
2. Are all stairways and ladderway openings guarded by a standard railing and toeboards on all open sides, except at the entrance of the opening? (Reference paragraph 7.3.1.7.1.)
3. Are all open-sided floors, platforms, and runways 4 feet or more above the ground guarded on all open sides? (Reference paragraph 7.3.1.7.3.)
4. Are grab handles installed on each side of the opening, when the operation requires reaching through or around the unprotected opening? (Reference paragraph 7.3.1.7.4.)
5. Are the general specifications for standard railings and toeboards used? Is OSHA 1910.23 consulted for specific detail on construction and installation? (Reference paragraph 7.3.1.7.5.)

Handrails: height 36-44 inches above floor

Stair rail: height 30-34 inches above floor

All handrails shall have a diameter: metal 1.5 inches, wood 2 inches

Toeboards 4 inches high

### **Exterior Walking and Working Surfaces (Parking Lots)**

1. Is the surface of parking lots smooth, have good drainage, and free of pedestrian tripping hazards? (Reference paragraph 7.3.2.2.)
2. Are entrances and exits free of obstructions that block a driver or pedestrian's view of traffic? (Reference paragraph 7.3.2.2.)

## **Walkways**

1. Are exterior walkways kept clear of obstacles that block the right-of-way or present slipping and tripping hazards? (Reference paragraph 7.3.2.3.)

## **Grounds**

1. Do workers ensure materials are not stored, left under, or piled against buildings, doors, exits, or stairways? (Reference paragraph 7.3.2.4.1.)

## **FIXED INDUSTRIAL STAIRS AND RAMPS**

### **Strength**

1. Are fixed stairs and ramps designed and built to carry a load of five times the normal live load anticipated? (Reference paragraph 7.4.2.2.)

### **Angle of Rise**

2. Are fixed stair (not part of the exit access) installed at angles to the horizontal of between 30 and 50 degrees? (Reference paragraph 7.4.2.4.)

### **Width of Landings**

4. When the doors or gates open directly onto a stairway, is the available width of the landing wider than 20 inches? (Reference paragraph 7.4.2.6.)

### **Vertical Clearance**

5. Where there is less than 7 feet of headroom over stairs, are obstructions padded? Where they cannot be padded they should be color-coded with yellow or yellow-and-black stripes to highlight the hazard? (Reference paragraph 7.4.2.7.)

6. In all cases, are caution signs used to warn people of low clearance? (Reference paragraph 7.4.2.7.)

### **Grating**

7. Are open grating type treads used for stairs that are not enclosed? (Reference paragraph 7.4.2.10.)

### **Stair Railings and Guards**

8. Is every flight of fixed industrial stairs, with four or more risers, equipped with standard guardrails or standard handrails? (Reference paragraph 7.4.2.12.1)

9. Do stairs less than 44 inches wide, having both sides enclosed, have at least one handrail, preferably on the right side going down? (Reference paragraph 7.4.2.12.1.1.)
10. Do stairs less than 44 inches wide, having one side open, have at least one guardrail on the open side? (Reference paragraph 7.4.2.12.1.2.)
11. Do stairs less than 44 inches wide, having both sides open, have one guardrail on each side? (Reference paragraph 7.4.2.12.1.3.)
12. Do stairs more than 44 inches wide but less than 88 inches wide have a handrail on each enclosed side and a guardrail on each open side? (Reference paragraph 7.4.2.12.1.4.)
13. Do stairways 88 or more inches wide have one handrail on each enclosed side, one guardrail on each open side, and one intermediate guardrail built midway of the width? (Reference paragraph 7.4.2.12.1.5.)
14. Are spiraling and winding stairs equipped with a handrail offset to stop people from walking on the parts of the treads that are less than 6 inches wide? (Reference paragraph 7.4.2.12.2.)

### **Illumination**

15. Are stairs and ramps lighted so all treads and landings will be visible (Minimum 5-ft. candles)? (Reference paragraph 7.4.2.13.)
16. Is emergency lighting available for all accesses to means of egress (1ft-candle/floor level)? Is emergency lighting periodically tested for proper operation? (NFPA 101 section 5-9)

### **Maintenance**

16. Are stairs and ramps kept clean, free of obstructions or slippery substances, and in good repair? (Reference paragraph 7.4.2.15.)
17. Are slippery or worn treads and surfaces either replaced or made safe by coating them with non-slip surface materials? (Reference paragraph 7.4.2.15.3.)
18. Are guardrails and handrails smooth, free of splinters or burrs, and securely mounted? (Reference paragraph 7.4.2.15.6.)

### **FIXED LADDERS**

#### **Length**

1. Are ladders 20 feet or less of a continuous length? (Reference paragraph 7.5.2.2.1.)

2. When ladders are more than 20 feet and of a continuous length, are the following requirements considered:

a. A landing platform is provided for a person to rest or gain access to another section of the ladder? (Reference paragraph 7.5.2.2.1.1.)

b. Platform is provided every 30 feet, or fraction thereof? (Reference paragraph 7.5.2.2.1.1.)

c. The landing platform is not less than 24 inches wide by 30 inches long and equipped with standard railings? (Reference paragraph 7.5.2.2.1.2.)

d. Toeboards are provided where the hazard of objects falling is present? (Reference paragraph 7.5.2.2.1.2.)

3. Is adequate illumination provided when ladders are used under conditions of adequate visibility? (Reference paragraph 7.5.2.5.)

#### **Access**

4. Where unauthorized use of a fixed ladder is a problem, such as in a public area, is the bottom 7 - feet guarded? (Reference paragraph 7.5.2.6.)

#### **Electric Lines**

5. Are electrical conductors not installed on or adjacent to fixed metal ladders, unless they are beyond reach and cannot be used as a handrail or grabbed in an emergency? Is the installation at least 5 - feet from the ladder? (Reference paragraph 7.5.2.8.)

#### **Inspections**

6. Are formal, fully documented inspections of all fixed ladders accomplished upon installation and at least every 3 years thereafter? (Reference paragraph 7.5.3.1.)

#### **Maintenance**

7. Do base CE, the property manager, and ground safety officials approve modifications to ladder components, safety climb devices, or related equipment? (Reference paragraph 7.5.4.2.)

#### **HOUSEKEEPING (AFOSH STD 91-501, Chapter 5)**

1. Are packing materials such as excelsior (fine wood shavings), packing straw, and shredded paper kept to a minimum in the immediate work area with bulk supplies stored in an isolated fire resistant building? (Reference paragraph 5.3.)

2. When materials are stacked less than 15 feet high, is an 18-inch clearance maintained below fire protection sprinkler heads? Are materials stacked more than 15 feet high kept at least 36-inches away from sprinkler heads? (Reference paragraph 5.6.)

3. Are trash cans adequate to ensure work areas are kept free of refuse and waste? (Reference paragraph 5.8.3.)

### **FIRE PROTECTION** (AFOSH STD 91-501, Chapter 6)

1. Have managers/supervisors trained all employees in fire prevention and protection responsibilities? (Reference paragraph 6.2.1.1.)

2. Are monthly fire extinguisher visual inspections conducted to detect and correct discrepancies? (Refer to AFOSHSTD 91-501, 6.2.4.7.)

### **EXIT LIGHTS** (All references are NFPA 101)

1. Do approved sign mark exits? It shall be readily visible from any direction of exit access. (Except exterior doors that are obviously and clearly identifiable as exits). (5-10.1.1)

2. Do approved exit signs mark exit access? No point in the exit access corridor shall be more than 100 ft from the nearest sign. (5-10.1.4)

3. Are direction signs showing the direction of travel shall be placed every location where the direction of travel to reach the nearest exit is not apparent? (5-10.4.1.1)

4. Are all exit lights and directional arrows must be illuminated by a reliable light source. (5-10.3.1)

### **MEANS OF EGRESS** (All references are NFPA 101)

1. Do side hinged doors or pivoted swing doors swing in the direction of egress travel where serving a room or area with an occupant load of 50 or more? (5-2.1.4.2)

2. Are doors arranged to open readily from the egress side whenever the building is occupied? Locks if provided shall not require the use of a key, a tool or special knowledge or effort for operation from inside the building? (See exceptions)(5-2.1.5.2)

3. Are doors that do not provide means of egress that could be mistaken for means of egress must be marked "NOT AN EXIT"?

### **ELECTRICAL** (NEC, NFPA 101, & AFOSH STD 91-501, Chapter 8)

1. Is there broken plaster or wall material around an electrical box? (NEC 370.21)

2. Are receptacles the ground type? (NEC 210-7)
3. Do receptacles in wet or damp locations have weatherproof covers? (NEC 410.57; AFOSH STD 91-501, 8.3.)
4. Are breaker boxes, disconnecting means such as knife switches for motors and appliances legibly marked to indicate its purpose (unless purpose is evident)? (OSHA 29 CFR 1910.303(f); NEC 110-22; AFOSH STD 91-501, 8.6.)
5. Panel boxes shall have a clear working clearance of 3 ft. (NEC 110-26(a))
6. Antenna needs to be connected to a ground. Fire protection antenna must have a ground conductor that goes to ground. (NFPA 780 3-17; OSHA 29 CFR 1910 308(e) 5ii)
7. Flexible cords cannot be used as a substitute for permanent wire. Cannot be run through doorways, windows, walls, floors or ceilings. Cannot be taped, tacked, or stapled to building surfaces. (OSHA 29 CFR 1910.305(I); AFOSH STD 91-501, 8.5.1.)
8. GFCIs shall be installed in the following: (NEC 210-8)
 

Dwelling units	Bathrooms, Garages, Outdoors, Crawlspace, Unfinished Basements
Non-Dwelling	Bathrooms, Rooftops
9. Are light fixtures installed so they are not over combustibles? (NEC 410-5)
10. Are light fixtures properly secured? (NEC 410-15)
11. Is outdoor electrical equipment protected from unauthorized personnel, physical damage or water leakage? (NEC 112-f (2))
12. Is the insulation on any wires broken (wires are exposed)? (NEC 110-7)
13. Is all electrical equipment firmly secured to the surface on which it is mounted? (NEC 110-13(a))
14. Are unused openings in boxes, cabinets, equipment closed? (NEC 110-12(a); AFOSH STD 91-501, 8.7.)
15. Are there any polarity problems with the wiring? Test receptacles for proper polarity using a tester. (NEC 200-11)
17. Do circuits have the proper voltage (no low voltage)? (NEC 110-4)
18. Are ground interrupters (plugs) used on cords when ground type plugs are not available? (OSHA 29 CFR 1910.344(a)(3)(iii))