



**Duke University - Facilities Management Department  
Environmental Safety and Health Program**

**WALKING/WORKING SURFACES (WWS) PROGRAM**

**Area:** All FMD Organizations

**Date Effective:** 8 April 2011

**Issue No.:** 1

**Revision:** 1

**Page 1 of 4**

**A. Purpose**

1. To identify and define potential hazards and injury prevention measures related to Walking Working Surfaces (WWS) in the workplace.

**B. Scope**

1. This program applies to all FMD employees and contractors working for FMD.

**C. Policy**

1. FMD will take all reasonable measures to provide a safe workplace. All FMD operations must be performed in a manner, which will prevent any undesirable effects to FMD and/or Duke employees, assets, the local community, and the environment.
2. The provisions of this program and all applicable standards will be followed to ensure the safety of personnel performing service or maintenance activities to equipment, machines, or systems. Failure to follow the requirements of the Walking Working Surfaces Program will be cause for disciplinary action.

**D. Definitions**

1. **Aerial Lift:** Vehicle mounted elevating work platform (e.g. Boom Lifts, Articulating Telescoping Boom Lifts, and Scissor Lifts, Upright Lifts).
2. **Floor Hole:** An opening measuring less than 12 inches but more than 1 inch in its least dimension in any floor, platform, pavement or yard; through which materials but not persons may fall; such as a belt hole, pipe opening, or slot opening.
3. **Floor Opening:** An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard through which persons may fall; such as a hatchway, stair or ladder opening, pit, or large manhole. Floor openings occupied by elevators, dumb waiters, conveyors, machinery, or containers are excluded from this subpart.
4. **Handrails:** A single bar or pipe supported on brackets from a wall or partition, as on a stairway or amp, to furnish persons with a handhold in case of tripping.
5. **Ladder:** A ladder is an appliance usually consisting of two side rails joined at regular intervals by cross-pieces called steps, rungs, or cleats, on which a person may step in ascending or descending. Other types of ladders include: stepladder, single ladder, extension ladder, sectional ladder, trestle ladder, extension trestle ladder, special-purpose ladder, trolley ladder, side-rolling ladder. Definitions for these can be obtained by at 29 CFR 1910.21.
6. **Platforms:** An extended step or landing breaking a continuous run of stairs.
7. **Scaffold:** Any temporary elevated platform and its supporting structure used for supporting workmen or materials or both.
8. **Standard Railing:** A vertical barrier erected along exposed edges of a floor opening, wall opening, ramp, platform, or runway to prevent falls of person.
9. **Toeboards:** A barrier secured along the sides and ends of a platform, to guard against the falling of material.
10. **Wall Opening:** An opening measuring at least 30 inches high and 18 inches wide in a wall or partition, through which persons may fall. This includes the need for a guard(rail) if there is a drop of more than four feet.

**E. Types of Walking/Working Surfaces**

1. **Floors**
  - a. Policy
    - 1) Floors must be kept clean and dry, there must be sufficient safe clearances in aisle ways and passages, covers and guardrails must be provided to protect employees fm the hazards of open pits, vats, and ditches, etc. Areas should be evaluated to ensure proper signage is provided and posted.
  - b. References
    - 1) 29 CFR 1910.22

**Revision History**

Revision	Description	Effective Date
1	Administrative and formatting corrections	04/8/11



**Duke University - Facilities Management Department  
Environmental Safety and Health Program**

**WALKING/WORKING SURFACES (WWS) PROGRAM**

**Area: All FMD Organizations**

**Date Effective: 8 April 2011**

**Issue No.: 1**

**Revision: 1**

**Page 2 of 4**

**2. Ladders**

**a. Policy**

- 1) All ladders purchased by FMD shall be of a load rating that is appropriate to carry the weight of both the employee and any equipment or tools that will be used on that ladder. Ladders shall be a minimum of "Type I (heavy duty)" [Note: This is a 250 lb load capacity.] and shall bear labels indicating the same.
- 2) All ladders used for work that involving electricity or in proximity to electrical lines shall be fiberglass.
- 3) All newly purchased ladders shall be either fiberglass or aluminum. No wooden ladders shall be purchased.
- 4) All ladders shall be inspected before each use by the employee(s) using the ladder. Ladders that are found to have any unsafe conditions (e.g., broken rungs, loose rungs, missing spreaders, missing rivets, oily/greasy rungs) shall be removed from service until such conditions are corrected. Ladders that are removed from service shall be labeled "Danger: Do Not Use" until the condition is corrected. Ladders that are permanently removed from service shall be labeled and disposed. Employees may not take damaged ladders for personal use.
- 5) Employees shall maintain three points of contact while ascending/ descending the ladder. (Two hands and one foot, or one hand and two feet.) Tag lines, tool belts, or an assistant shall be used to get tools and equipment to the necessary location.
- 6) Ladders will extend a minimum of three feet beyond the surface being accessed.
- 7) Employees shall not climb the rear of a step-ladder unless it designed by the manufacturer for such use.
- 8) Step ladders or extension ladders 10 feet in length or greater, or greater than 50 pounds shall require the two employees to carry in order to avoid injury,
- 9) Extension ladders should be tied off for additional safety and security.
- 10) The side rails of a ladder should extend at least three feet above the upper landing surface.

**b. Training**

- 1) Ladder Safety training for all types of ladders shall take place a minimum of once every three years. Training will be provided through the OESO training website or in person. See paragraph E below for more.

**c. References**

- 1) 29 CFR 1910.25 "Portable Wooden Ladders"
- 2) 29 CFR 1910.26 "Portable Metal Ladders"
- 3) 29 CFR 1910.27 "Fixed Ladders"

**3. Aerial Lifts**

**a. Policy**

- 1) All manufacturer instructions must be maintained WITH the equipment for reference by operators at all times.
- 2) The assigned operator must make a documented visual inspection of equipment prior to usage.
- 3) Only employees qualified by training or experience may operate aerial manlifts.
- 4) Always report any defective equipment as soon as identified. Defects that affect the safe operation of the equipment must be removed from service and repaired prior to use.
- 5) Always be in Low Position when moving to another location.
- 6) Always maintain a safe distance from phone lines, power lines, and overhead obstructions.
- 7) Ensure equipment is on a solid surface before operation.
- 8) Operator will remain on the platform at all times while operating the equipment and will not, at any time, stand on the guard rails.
- 9) When required in the operator manual, a restraint device (i.e. shock absorbing lanyard and full body harness) will be utilized. The point of attachment must be to the designated anchor point installed by the Equipment Manufacturer. The anchor point is generally identified with a label and in the Operator Instruction Guidelines. Personnel cannot attach lanyards to adjacent poles, structures or equipment while they are working from the aerial lift.

**Revision History**

Revision	Description	Effective Date
1	Administrative and formatting corrections	04/8/11



**Duke University - Facilities Management Department  
Environmental Safety and Health Program**

**WALKING/WORKING SURFACES (WWS) PROGRAM**

**Area: All FMD Organizations**

**Date Effective: 8 April 2011**

**Issue No.: 1**

**Revision: 1**

**Page 3 of 4**

- 10) A hardhat (or outrigger) and safety glasses will be worn at all times while operating this equipment.
- 11) Personnel cannot move an Aerial Lift while the boom is in an elevated working position and the operator is inside of the Lift platform.

**b. Training**

- 1) Training is provided by the manufacturer and/or vendor when new equipment is received. See Paragraph E below for more.

**c. References**

- 1) 29 CFR 1910.67 "Aerial Lifts"
- 2) WAC 296 307 150

**4. Scaffolds**

**a. Policy**

- 1) Scaffolding will not be constructed any higher than twelve feet by FMD personnel.
- 2) Scaffolding needed that is higher than twelve feet will be contracted out. It must be prefabricated scaffolding and will be inspected by a qualified person (i.e. contractor) before use.
- 3) When constructed higher than four feet a handrail must be in place.
- 4) A toeboard (four inches high with not more than one quarter inch above the floor) must be utilized on the scaffold walking surface when there is the potential that anyone can walk under or around the erected scaffolding. This will be applied when the height of the scaffolding is higher than four feet.
- 5) All manufacturer guidelines and instructions for use must be adhered to.
- 6) Steps of the ladder stands shall be fabricated from slip resistant treads.

**b. Training**

- 1) Training will be conducted by the vendor supplying the equipment before the equipment is first placed into use. See paragraph E below for more.

**c. References**

- 1) 29 CFR 1910.21

**F. Training**

- 1. Employees shall be given a copy of this Program and be trained on its contents and specific requirements. The training will be documented and a signature obtained from the employee which acknowledges that they attended the class and that they received a copy of the Program. Training will be conducted on an as-needed basis: when new equipment is introduced into the workplace, procedures change, and/or the work area changes.

**G. Attachments**

- 1. Attachment A - Aerial Lift and Scissor Lift Inspection Sheet

**Revision History**

Revision	Description	Effective Date
1	Administrative and formatting corrections	04/8/11



**Duke University - Facilities Management Department  
Environmental Safety and Health Program**

**WALKING/WORKING SURFACES (WWS) PROGRAM**

Area: All FMD Organizations

Date Effective: 8 April 2011

Issue No.: 1

Revision: 1

Page 4 of 4

## Attachment A – Aerial Lift and Scissor Lift Inspection Sheet

Type Equipment: \_\_\_\_\_

Unit Number: \_\_\_\_\_

Location Maintained At: \_\_\_\_\_

Work Order No., if applicable: \_\_\_\_\_

Inspected By: \_\_\_\_\_

Date Inspected: \_\_\_\_\_

Indicate by initialing "Yes" if item checked is adequate, operational, and safe. Initial "No" to indicate repair or other action is required. Initial N/A to indicate "Not Applicable".

	Yes	No	N/A
<b>Items to be checked</b>			
a. Fuel level (applicable for engine drive only)			
b. Engine oil level (applicable for engine drive only)			
c. Hydraulic system level, visible leaks			
d. Battery, water level, condition, state of charge			
e. Tires, proper inflation, damage			
f. Platform structure, cleanliness, physical condition			
g. Instruction placards, warning placards in place and legible			
h. Eye wash bottle, fire extinguisher (if applicable)			
i. Test the tilt alarm (if applicable)			
<b>From the ground control station (Do all applicable portions):</b>			
a. Raise and lower platform/boom			
b. Raise platform/boom and lower with auxiliary power			
c. Raise platform/boom and lower with manual bleed valves			
d. Telescope out and in			
e. Swing platform right and left			
<b>From the platform control station:</b>			
a. Fasten safety harness			
b. Telescope out and in			
c. Raise and lower platform/boom			
d. Swing right and left			
e. Extend and level outrigger (if applicable)			
f. Drive machine forward and reverse, right and left			
g. Raise platform/boom and descend with auxiliary power			

Note defects found must be repaired prior to equipment use. On completion of inspection, retain this form with the equipment till the end of the workday. Then turn in to immediate supervision for filing.

Name of Person Making Repairs: \_\_\_\_\_

Signature of Person Making Repairs: \_\_\_\_\_ Date Repairs Completed: \_\_\_\_\_

Revision History

Revision	Description	Effective Date
1	Administrative and formatting corrections	04/8/11