

Title: Portable Ladder Safety Procedure  
Effective Date: November 2005  
Revision Date: January 12, 2017  
Issuing Authority: VP, Facilities and Construction Management  
Responsible Officer: Director Environmental Health and Safety

**PURPOSE OF THE PROCEDURE**

To prevent injuries and assure safe operation when working with ladders.

**SCOPE OF THIS PROCEDURE**

To prevent injuries and assure safe operation when working with ladders.

**WHO NEEDS TO KNOW THIS PROCEDURE**

All New York University academic, commercial and residential facilities.

**PROCEDURES FOR IMPLEMENTATION**

**Responsibilities:**

**Facilities Manager, Department Manager, Construction Manager and Supervisors**

The supervisor shall be responsible for the safe practice of all processes involving portable ground ladders. Applicable regulations shall be followed.

**Non-NYU personnel are prohibited from using NYU-owned ladders**

# UNIVERSITY PROCEDURE

## RESPONSIBILITIES

### Training:

Each operator/user shall be well trained in and familiar with all portable ladders and work procedures used in their respective job assignment(s).

### Personal Protective Equipment:

1. Gloves that protect the hands shall be worn to protect the operator/user from cuts and abrasions may result from activities involving portable ladders.
2. Hard hats that protect the users and bystanders' heads shall be worn to protect the operator/user, and bystanders, from potentially falling objects.
3. Additional personal protective equipment that is appropriate for the activities/processes being performed on or near the portable ladder shall be worn.

### General Information:

The Occupational Safety and Health Administration (OSHA) requirements for portable ladders for general industry are described in 29 CFR 1910 Subpart D sections 21, 22, 25 and 26. These requirements apply to all NYU departments where portable ladders are used as well as manufacturer recommendations on use of specific ladders. This does not address OSHA requirements for fixed ladders.

### Responsibilities:

1. The Department Head will be responsible for implementing the Portable Ladder Safety Program in their area. This will include assuring that all affected personnel follow all policies and procedures related to the safe operation of portable ladders, and will take corrective action in the event that an employee violates the established safe operating procedures.
2. The Department Supervisor will ensure that all employees are properly trained to use portable ladders to help to avoid injuries. Employees will receive training as necessary by the supervisor. The supervisor will maintain all training documentation within the department, including training records and equipment checklists.
3. The Employee will inspect equipment prior to use. Environmental Health and Safety recommends the employee conduct a monthly checklist inspection to be recorded and filed by the supervisor. An example checklist can be found on page 6; key on page 7, detailing the items to be reviewed prior to usage. The employee will operate equipment safely and in accordance to operating instructions as well as this NYU Procedure, OSHA 29CFR 1910 Subpart D sections 21, 22, 25 and 26, and manufacturer's operator's guidelines. Appropriate protective equipment will be worn at all times.
4. The Employee will report any defects to the supervisor immediately. The defected equipment will not be used if the defect impairs the safe operation of the ladder.
5. Environmental Health and Safety will be responsible for training the Supervisors on the requirements of this procedure and the safe use of equipment. Annual audits will be performed on the integrity of the equipment.

### Training:

1. Environmental Health and Safety will provide initial training for NYU supervisors on the requirements of this procedure to include:
  - a. The nature of fall hazards;
  - b. The correct and safe usage of portable ladders;

- c. Load-carrying capacities;
  - d. Storage and maintenance;
2. NYU Department Supervisors will provide annual training to affected employees on the criteria listed in the Training section of this procedure.

**Types of Ladders:**

1. Stepladders (A-Frame ladders) - There are several key points for safe use of stepladders:
  - a. The spreaders should be fully extended and locked in place before use;
  - b. The top two levels are not for sitting or standing;
  - c. The paint tray should only be used for holding paint cans and trays;
  - d. The back of the ladder should never be used for climbing;
  - e. Stepladders should never be leaned against a wall for use as a straight ladder.
2. Straight Ladders (Extension ladders) - Length is extremely important in selecting the proper straight ladder. If the ladder is used to reach a roof or elevated platform, select one that can extend at least **three feet** above the point of support. Please refer to the table on the next page to help in length selection.

Straight Ladder Length for Various Heights	
Height to Reach (feet)	Recommended Ladder Height (feet)
9.5	16
13.5	20
17.5	24
21.5	28
24.5	32
29	36

Set up and placement of a ladder is also important in safe use. Straight ladders should be positioned so that the horizontal distance between the foot of the ladder and the support against which it is placed is equal to one-fourth the height of the ladder at the top of support. In other words, for every four feet up in height the ladder should extend one foot out from the wall.

**General Safety Requirements:**

1. Ladders shall be lashed or held in position to prevent slipping. They may not be used in horizontal positions for use as platforms or runways. Ladders may be used only one person at a time unless specifically designed to accommodate additional people.
2. Wooden ladders shall be maintained free of sharp edges, splinters, and other visual defects. Each ladder shall be inspected before use for shake, compression failures, decay, or other irregularities and removed from service if found defective. Wooden ladders shall never be painted, as paint may hide defects that could lead to failure.
3. Wooden stepladders are not to exceed 20 feet in length. Single-section straight ladders are not to exceed 30 feet in length, while two-section straight ladders are not to exceed 60 feet in length.
4. Metal ladders shall never be used for work on or around exposed electrical elements; a wood or fiberglass ladder is necessary. However, refer to warning labels on the ladder or the manufacturer’s directions because some nonmetal ladders are reinforced with steel or other conductive materials.
5. Metal ladders shall not exceed 20 feet in length. Single-section straight ladders are not to exceed 30 feet in length, while two-section straight ladders are not to exceed 48 feet in length. Portable metal ladders with more than two sections are not to exceed 60 feet in length.

**Climbing Guidelines:**

There are few climbing guidelines that help to prevent accidents when using a portable ladder.

1. Wear shoes with non-skid soles that are free of snow, mud or grease.
2. Never stand on the top or top step of a stepladder or stand higher than the third highest rung from the top of

- a straight ladder. This makes the ladder unsteady and leaves the user with no handhold.
3. Ladders shall always be placed on stable bases. Boxes, barrels, or other unstable surfaces shall never be used to obtain additional height.
  4. Overreaching can also cause instability. A good rule of thumb is to not lean so that the ladder can become unbalanced. It is better to take the extra step to move the ladder closer. Take the time be safe.
  5. When climbing or descending ladders, always face the ladder and hold onto each side rail.

**Storage and Maintenance:**

1. Ladders shall be maintained in good condition at all times.
2. The joints between the steps and side rails shall be tight.
3. Hardware and fittings shall be secure.
4. Moveable parts shall operate freely.
5. Metal bearings should be frequently lubricated.
6. Frayed or worn rope shall be replaced.
7. Safety feet and other auxiliary equipment shall be kept in good repair.
8. Rungs shall be kept free of grease and oil.
9. If tipped over, inspect for dents, bends, rungs, hardware security or other damage.
10. If space permits, hang a ladder horizontally on wall hooks in a dry place not subject to extreme temperatures. This is the best method for storage.
11. If conditions exist that make a ladder unsafe for use, it shall be removed from service immediately and marked with a warning such as “Dangerous – Do Not Use”.
12. If a ladder cannot be repaired, it shall be destroyed.

**Program Evaluation:**

Environmental Health and Safety will conduct an annual evaluation of the program.

**Portable Ladder Safety Checklist:**

Employee’s Name (print): \_\_\_\_\_

Ladder Description: \_\_\_\_\_

*Check if equipment complies. If equipment does not apply mark NO next to box. See page 6 for Key.*

1. Visual inspection conducted daily or during regular use.
2. Maintained free from oil, grease, or slippery materials.
3. Set up at proper angle during use.
4. Defective ladders withdrawn from service.
5. Used only for intended purpose.
6. Placed as to prevent slipping, or lashed or held in position.
7. Doors locked or guarded to placing ladder in front of them.
8. Placed only on stable bases.
9. Wooden ladders free from sharp edges, splinters, visible defects.
10. Wooden stepladders do not exceed 20 feet in length.
11. Wooden single-section ladders do not exceed 30 feet in length.
12. Wooden two-section ladders do not exceed 60 feet in length.
13. Metal ladders not used for work on exposed electrical conductors.
14. Metal stepladders do not exceed 20 feet in length.
15. Metal single-section ladders do not exceed 30 feet in length.
16. Metal two-section ladders do not exceed 48 feet in length.
17. Metal ladders with more than two sections do not exceed 60 feet in length.

18. Workers trained in proper use of and hazards related to ladders.

**Overall Condition (Circle One):**

**Satisfactory**

**Unsatisfactory**

Comments

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Supervisor: \_\_\_\_\_  
(Print name) (Sign name & date)

This form is to be completed by the employee and "signed off" by the supervisor.

**Key to Portable Ladder Safety Checklist:**

The Supervisor is responsible for covering required topics for successful training. Below is a key that should accompany the Portable Ladder Safety Checklist.

**Key to Portable Ladder Safety Checklist:**

1. The employee shall conduct an inspection prior to use of the ladder, however a monthly inspection record shall be conducted by the employee and filed with the supervisor.
2. Self-explanatory
3. A simple rule for setting up a ladder is to place the base out one foot for every four feet the ladder extends vertically. (This applies to straight or extension ladders).
4. Defective ladders shall be repaired before being placed back into service or destroyed to prevent further use or possible injury.
5. Ladders shall not be used as skids, or braces, or for any use other than their intended purpose.
6. Ladders shall not be placed on slippery surfaces unless secured by lashing or holding.
7. Self-explanatory
8. Ladders shall not be placed on boxes, barrels, or other unstable surfaces to obtain additional height.
9. Ladders shall be visually inspected before each use for shake, wane, compression failures, decay, or other irregularities and removed from service if found defective. Wooden ladders shall never be painted.
10. Self-explanatory
11. Self-explanatory
12. Self-explanatory
13. Ladders must have nonconductive side rails if they are used where the worker or the ladder could contact exposed energized electrical circuits.
14. Self-explanatory
15. Self-explanatory
16. Self-explanatory
17. Self-explanatory
18. General training is conducted by the area supervisors. (Environmental Health and Safety will train supervisors on the requirements of the procedure; see Training section)

**RELATED POLICIES**

NYU Environmental Health and Safety Policy

**RELEVANT RESOURCES**

OSHA 1926.1053