

# UNIVERSITY OF SOUTH CAROLINA LANCASTER

## PORTABLE LADDER SAFETY REQUIREMENTS

### Introduction

Portable ladders are used at the University of South Carolina Lancaster in a wide variety of settings, both academic and administrative. Misuse of portable ladders can result in serious injuries from falls or, in the case of metal ladders, electrical shock. Portable ladders must be maintained in good condition at all times, and inspected at regular, frequent intervals. Training is also an important aspect of portable ladder safety and accident prevention.

### Scope and Application

The Occupational Safety and Health Administration (OSHA) requirements for portable ladders are described in this section and apply to all departments where portable ladders are used. This section does not address the OSHA requirements for fixed ladders.

### Program Description

#### General Safety Requirements for Portable Ladders

Portable ladders should be inspected at frequent, regular intervals and maintained in good condition free from oil, grease, or other slippery materials. Defective ladders should be removed from service until repaired. Those which cannot be repaired should be destroyed.

Care should be taken while setting up ladders, ensuring that a proper angle is maintained. A simple rule for setting up a ladder is to place the base out from a vertical distance of one-fourth the length of the ladder. For example, if a ladder has a length of 8 feet, the base should be set out 2 feet from vertical to achieve a proper angle. Ladders should always be placed on stable bases. Boxes, barrels, or other unstable surfaces should never be used to obtain additional height. Additionally, ladders should not be placed on slippery surfaces unless secured by holding or lashing.

#### Portable Wooden Ladders

Portable wooden ladders should be maintained free of sharp edges, splinters, and other visual defects. Each ladder should be inspected before use for shake, compression failures, decay, or other irregularities and removed from service if found defective. Wooden ladders should never be painted, as paint may hide defects that could lead to ladder failure.

Wooden step ladders are not to exceed 20 feet in length. Single-section portable ladders are not to exceed 30 feet in length, while two-section portable ladders are not to exceed 60 feet in length.

#### Portable Metal Ladders

As with wooden ladders, portable metal ladders should be inspected before use and removed from service if found defective. Because metal ladders will easily conduct electricity, they must never be used for work on or near exposed electrical conductors.

Metal step ladders are not to exceed 20 feet in length. Single-section ladders are not to exceed 30 feet in length, while two-section 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.

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### Training

Training should cover the proper use, inspection of, and hazards related to portable ladders. Those who use ladders near exposed electrical conductors operating at 50 volts or more should also receive training in Electrical Safety-Related Work Practices.

### **Roles and Responsibilities**

#### Department

- Provide the appropriate type(s) of portable ladder(s).
- Provide specific training for ladder users.
- Establish ladder inspection guidelines.

#### Supervisors

- Ensure ladders are inspected at predetermined intervals.
- Ensure ladder safety requirements are followed.

#### USC EHS

- Provide general training for ladder users.
- Assist departments in ladder selection.
- Assist departments in establishing ladder inspection guidelines.

#### Individual

- Attend training.
- Adhere to ladder safety requirements.

### **For More Information**

- Contact Butch Lucas @ 6-7085 or USC Environmental Health and Safety at 777-5269
- A Portable Ladder Safety Self-Audit Checklist is available through EHS. The [checklist, and key](#), both in Microsoft Word, may be downloaded and either printed as is or customized to meet the needs of the particular user.