

**University of Arkansas**  
**Office of Environmental Health and Safety**

**Procedure Name: Ladder Safety**

**Procedure Number: 600. 28**

**Effective Date: 7-1-2016**

**Procedure:**

This document covers all types of ladders, including step, extension, and fixed ladders. Ladder users must be able to recognize and avoid ladder hazards and be aware of safe practices in setting up, storing, moving, and working from this equipment.

**Purpose:**

The purpose and scope of this document is to put forth the regulations regarding ladder safety procedures and training at the University of Arkansas. OSHA regulation CFR 1926, 1950-1960 Subpart X contains specific information on these rules. All employees or students who might be expected to use a ladder during the course of work should be familiar with this document.

**Responsibilities:**

- It is the responsibility of all supervisors, department managers, faculty, and staff to assure that all personnel at the U of A who may use a ladder read and understand this document.
- It is the responsibility of Environmental Health and Safety to provide basic ladder training safety information to all departments in need of that training.
- It is the responsibility of all supervisors, department managers, faculty, and staff to assure that all ladders being used at the U of A are free of defects and that all moving parts are working properly.
- It is the responsibility of all supervisors and department managers to submit to EH&S records on departmental ladder training and monthly ladder safety inspections.
- It is the responsibility of Environmental Health and Safety maintain records of EH&S ladder safety training sessions when they occur.

## **Definitions:**

**CFR.** Code of Federal Regulations.

**Beam.** Main structural member of a ladder. Sides of a ladder.

**Bed Section (ladder).** Lowest or widest section of an extension ladder. Stationary section.

**Butt (ladder).** Bottom end of ladder.

**Butt Spurs (Ladder).** Metal safety plates or spikes attached to the butt end of a ladder.

**Dogs/Pawls (Ladder).** Also called ladder locks, devices attached to the fly sections to hold the fly section in place after it has been extended.

**Fly (Ladder).** Upper section of an extension ladder.

**Rungs (Ladder).** Cross members that provide the foothold for climbing.

## **Ladder Categories.**

- Type IA-300 pounds, extra heavy duty
- Type I-250 pounds, heavy duty
- Type II-225 pounds, medium duty
- Type III-200 pounds, light duty

**Fixed Ladder.** A ladder that cannot be easily moved or carried, and may be an integral part of a structure.

## **Policy:**

1. All U of A employees and students who use ladders should have ladder safety training.
2. All employees and students who use ladders at the U of A must inspect them for damage or possible hazards monthly and/or before the ladders are used whichever comes first. (**see Ladder Inspection Form**). Ladders with loose parts or faulty rungs should be taken out of service immediately.
3. Ladders that are taken out of service should be tagged “defective” and removed from the work area.
4. Whenever possible have someone “heel the ladder” which is to simply hold on the bottom section of the ladder with both arms and support it while someone is climbing or working off the ladder until it can be secured.

## 5. Safe Ladder Practices

- A. All ladders must be placed on firm level ground.
- B. Do not set ladders on boxes, blocks, or other objects that might move.
- C. Set the ladder at the proper angle. Put your toes against the ladder's feet or butt. Stand straight and extend your arms. The palms of your hands should just reach the ladder's rungs.
- D. Do not lean or reach out while standing on ladders.
- E. Secure ladders whenever possible. Tie off the ladder top.
- F. Do not use ladders in high wind or inclement weather conditions.
- G. Never set up ladders in front of or around doors, unless the door is posted or locked.
- H. Do not sit on ladders.
- I. Use safety shoes or rubber sole shoes when climbing a ladder.

## 6. Climbing and standing on ladders safely

- A. Always face a ladder when climbing up or down.
- B. Avoid carrying materials or tools when climbing a ladder. Climb the ladder first then pull up the materials with a rope.
- C. Always maintain (3) points of contact with the ladder at all times.
- D. Do not slide down a ladder.
- E. Do not stand on the top rung or step of a ladder.
- F. Rungs and steps should be clear of grease, oil, wet paint, snow, or ice before climbing.

## 7. Proper use and care of Ladders

- A. Never use metal ladders near exposed electrical lines.
- B. Place warning signs or setup barriers around a ladder before use.
- C. Do not move a ladder while someone is on it.
- D. Only one person on a ladder at a time.
- E. Do not use a ladder as a scaffold.
- F. Do not leave tools or materials on top of ladders.
- G. Store wooden ladders where they will not be exposed to the elements.
- H. Do not paint wood ladders. Painting could hide potential dangerous defects.
- I. Make sure ladders are properly secured when transported.
- J. Remove defective ladders from service.
- K. Never try to move a ladder by rocking it.

## 8. Step Ladder Safety

- A. Never use a stepladder over 20 feet in length.
- B. Always open a stepladder completely and make sure the spreader is locked before use.
- C. Do not stand higher than the second step from the top of a step ladder.
- D. Do not straddle a stepladder.

## 9. Extension Ladder Safety

- A. The sections of an extension ladder should overlap enough to retain the strength of the ladder. **(see table 1)**
- B. Never splice or tie two short ladders together.
- C. When using a ladder for access to a landing, the top of the ladder must extend 3 rungs or 3 feet above the landing.
- D. The top of an extension ladder should rest against a flat, firm surface.
- E. Elevate and extend these extension ladders only from the ground.

**10. Extension Ladder setup**

- A. Lay the ladder on the ground before extending it.
- B. Have someone foot (heel) the butt of the ladder or make sure it is braced against something.
- C. Pick up the ladder and walk it to an upright position, make sure to check for overhead electrical lines or other obstructions.
  
- D. Slide the bottom (butt) of the ladder outwards to the proper angle, (**5. C**) and set the feet correctly.
- E. Extend the ladder fly section by pulling the extension line (halyard).
- F. Make sure the ladder locks are in place when the fly section of the ladder is extended to the proper height.
- G. If possible, tie the ladder off or have someone steady the ladder as you climb it.

**11. Fixed Ladder Safety**

- A. Fixed ladders must be secured to the object they are attached to.
- B. Fixed ladders over 20 feet must have a safety cage surrounding the ladder.
- C. The safety cage should have 15” clearance to all points from the center.
- D. Defects in fixed ladders should be repaired as soon as possible.
- E. When a defect is not repairable the ladder must be taken out of service.

**Table 1**

<b>Length of Ladder</b>	<b>Required Overlap</b>
Up to 36’	3 Feet
Over 36’ to 48’	4 Feet
Over 48’ to 60’	5 Feet

Source: Environmental Health and Safety

Revised:

Approved By: MKL

Custodian: EHS