Training Module

GS150: Ladder Safety
Introduction

The goals of this training are:

- to promote awareness of the hazards associated with using ladders in the workplace; and

- to provide employees information on the proper selection, care, inspection, storage and use of ladders.
## Hazards

Slips and Falls could lead to:
- Broken limbs
- Concussions
- Impalement
- Death
Hazards

Electric shock could lead to:

- Burns
- Death
Hazards

Other causes of hazards include:

- Using ladders with missing or broken parts
- Using ladders with too low of a load rating
Hazards

Other causes of hazards include:

- Using ladders that are too short for the task
- Using ladders when a scaffold or aerial lift is a more appropriate choice
Hazards

Other causes of hazards include:

- Using metal ladders near energized electrical equipment
Five Rules of Ladder Safety

There are five rules of ladder safety that will mitigate the risk of these hazards:

- **Selection**: Selecting the right ladder for the job
- **Inspection**: Inspect the ladder prior to use
- **Set Up**: Set the ladder up with care
- **Use**: Climb up and down cautiously
- **Safe Practices**: Use safe practices when working with ladders
Choosing the Right Ladder

When working with electricity or adjacent to electric lines choose a fiberglass or wooden ladder.

Choose a ladder that is an appropriate length. You should be able to reach your work without awkward postures and without using the top two steps of a step ladder OR the top three steps of an extension/straight ladder.

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Choosing the Right Ladder

Choose a ladder that has a load rating in excess of the combined weight of you AND any items you may carry on the ladder.

Load ratings are posted by the manufacturer on the side rails.

For the ladder shown: YOU + TOOLS < 375 lbs.
Choosing the Right Ladder

If you do not have a ladder with a load rating exceeding the requirements of the work, you must find a ladder with a higher rating or use other equipment to accomplish the task.

Other equipment may include an aerial device, a scissors lift, or a scaffold.
These are the load ratings typically found on ladders. Type II and Type III ladders may not have a large enough load rating to be used by some employees considering body weight & tools. Additionally, Type II and III ladders are meant for medium and light duty.
Never assume that the ladder you’ve been provided has the appropriate load rating. **CHECK!**

When purchasing a ladder, choosing one with a higher load rating ensures that the majority of employees will be able to safely use the ladder.
Always evaluate the safety of choosing to work from a ladder against other options. If the work cannot be performed safely from a ladder, **choose another option**.

These may include an aerial device, a scissors lift, or a scaffold.
Ladder Inspection

Always inspect the ladder before use.
Things you want to check for include:

No grease, oil, or other substances on rungs
Fittings are tight
Ropes on extension ladders not worn or broken
<table>
<thead>
<tr>
<th>Inspection</th>
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<tr>
<td>Ladder Inspection</td>
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<tr>
<td>Always inspect the ladder before use.</td>
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<tr>
<td>Things you want to check for include:</td>
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<td>No protrusions that could cause cuts or scratches</td>
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<td>Spreaderes or other locking devices are in place</td>
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<td>Non-skid safety feet are in place</td>
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**NOTES:**
Ladder Inspection

Always inspect the ladder before use. Things you want to check for include:

There are no structural defects and all support braces are intact.
Ladder Inspection

Any time a ladder has fallen or otherwise been abused, it must be inspected before it is put back into service.

**Do Not** attempt to repair broken side rails.

**Do Not** use broken ladders.

Broken ladders must be removed from service and tagged “Danger – Do Not Use” until they can be repaired or destroyed.
Ladder Set Up - All Ladders

Place the ladder on a clean and level surface that is free from slippery materials (oils & grease).

Never set-up a ladder near a doorway without first ensuring that people will not pass under the ladder and that the ladder will not be struck by the door. This may require directing traffic to another area temporarily.
Ladder Set Up - All Ladders

Never set up a ladder within 10 feet of exposed electrical equipment.
Ladder Set Up - Step Ladders

Ensure that the spreaders are completely extended and locked.
Ladder Set Up - Extension Ladders

If a ladder must be set up on an incline or uneven surface, use a land leveler.

On hard surface:
Use feet outward

On grass or loose surface:
Use feet in spiked position
Ladder Set Up - Extension Ladders

Extend the straight or extension ladder 3-4 feet above the top support, if used to access a roof or other elevated surface.

Place the straight or extension ladder base at a distance 1/4 the working height of the ladder from the wall plus the overhang distance.

Source: National Ag Safety Database (NASD)
Using the Ladder Safely

When climbing the ladder:

Face the ladder
Maintain three point contact at all times
Keep your body centered between the side rails
Use tool belts or hand lines to carry objects
Do not allow others to work under a ladder in use
Using the Ladder Safely

Never allow more than one person on a ladder at a time

The backside of a stepladder is not for climbing

Never attempt to move, shift or extend a ladder while in use

Do not use a ladder for other than its intended purpose
Maintaining Ladders

Keep ladders clean and the steps/rungs free of oil, grease, or other substances that may make the steps/rungs slippery.

Keep all threaded fasteners properly adjusted.

Do not paint ladders. This may conceal defects from the user during inspection.
Maintaining Ladders

Make repairs using only original manufacturer parts following the manufacturer’s instructions.

Do not attempt to repair broken side rails. A ladder with broken side rails must be removed from service & destroyed.
**Transporting Ladders**

When transporting a ladder on a vehicular roof rack or in a truck bed, remember to **secure the ladder** so that it will not fall out.

If the ladder extends more than 4 feet beyond the end of the vehicle, it **must be flagged** so that it can be seen easily by drivers following behind you.
Transporting Ladders

If a ladder is 12-ft or greater in length, you should ask for help carrying the ladder to prevent musculoskeletal injuries and damage to the ladder.
Store ladders on sturdy hooks, or otherwise properly supported and restrained, in areas where they cannot be damaged.

Store ladders to prevent warping or sagging.

Do not hang anything on ladders during storage.