

<b>Portable Ladder Use and Inspection</b>	<b>Number:</b>
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**I. PURPOSE STATEMENT:**

This procedure details minimum requirements for the construction, care and use of common types of portable ladders under normal conditions. This procedure does not apply to fixed ladders or scaffold ladders installed under manufacture’s specifications as a component of a scaffold system.

**II. SCOPE:**

This document applies to all employees and working owners of the company.

**III. REFERENCES**

- A. OSHA Standard 29CFR 1910.23,1910.21, 1910.22, 1910.145
- B. ANSI A14.3 – 1956
- C. Client Specific Procedures
- D. Company Policies & Procedures
- E. 01-SEM-001 – Safety & Environmental Manual Policy

**IV. DEFINITIONS**

- A. *Fixed Ladder* – A ladder permanently attached to a structure, building or equipment.
- B. *Portable Ladder* – A ladder that can be easily moved or carried.
- C. *Stepladder* – A self-supporting portable ladder, non-adjustable in length, with flat steps and hinged base.
- D. *Straight Ladder* – An articulated ladder where all sections are in line.
- E. *Mobile Ladder Stand* – A movable, fixed height, self-supporting ladder consisting of wide flat treads in the form of steps which give access to a Top Step.
- F. *Mobile Ladder Stand Platforms* - A movable, fixed height, self-supporting unit having one or more standing levels and is provided with a means of access or egress to the platform or platforms.

**V. TRAINING**

- A. Employers must train all employees:
  - 1. Recognize hazards associated with ladder use.

2. Proper inspection and documentation of portable ladder inspections.
3. Proper set-up and use of portable ladders.

**B. Retraining**

1. Workers should be retrained if any of the following conditions occur:
  - a) An accident occurs during portable ladder use.
  - b) If an employee is observed improperly using a portable ladder.
  - c) Workplace hazards involving portable ladders are discovered.
  - d) A different type of portable ladder is used.

**VI. RESPONSIBILITIES**

**A. Leadership**

1. Leads must ensure all employees who may use portable ladders have gone through and understand this program.
2. Procure the appropriate type of portable ladder.
3. Ensure ladder inspections are performed, inspections documented and filed (daily or pre-use checklist, and thorough periodic inspection)
4. Ensure ladder inspections are accomplished after any incident for damage or defects that could affect the ladders use.
5. Ensure any ladder with structural or other defects is immediately tagged “Danger” or with similar language in accordance with §1910.145 and removed from service until repaired in accordance with §1910.22(d), or replaced.

**B. Employees**

1. Employees who are trained and authorized to use portable ladders must follow the safe operating guidelines specified in this program.
2. Inspect ladder daily or before each use if ladders are not used daily.
3. Ensure ladders are set-up and used in accordance with the requirements of this procedure and manufacturer specification
4. Notify area supervisor if ladder is found to be defective and promptly tag them with a “Danger” tag and remove ladder from service. DO NOT USE ladders that have not passed inspection.
  - a) Danger tag must include the following information:
    - (1) Name of the person installing the tag
    - (2) Date the tag was installed.
    - (3) Ensure the words “do not use” are written on the tag.
    - (4) Description of the problem.
    - (5) Who was notified.

**C. Safety Lead (as needed or required)**

1. Train employees in ladder inspection techniques.
2. Provide recommendations for procurement, repair and disposal of ladders.

## VII. SAFETY AND OPERATIONS

### A. Portable Ladder Selection

1. Wooden ladders are prohibited.
2. All ladders shall be adequately rated for the loads, service, and conditions they will be used in.
3. Rungs and steps of portable metal ladders are corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize the possibility of slipping.
4. Each stepladder or combination ladder used in a stepladder mode is equipped with a metal spreader or locking device that securely holds the front and back sections in an open position while the ladder is in use.
5. Plastic capped step ladders are prohibited for use at jobsites where the ambient temperature is below zero degrees Fahrenheit.
6. The continuous length of a single ladder or total of individual connected sections of a ladder shall not exceed 30 feet.
7. Ladders and ladder sections are not tied or fastened together to provide added length unless they are specifically designed for such use.
8. Ladders used for electrical work or near electrical sources shall have the appropriate electrical rating.
9. Ladder rungs, steps, and cleats are parallel, level, and uniformly spaced when the ladder is in position for use.
10. Ladder rungs, steps, and cleats are spaced not less than 10 inches (25 cm) and not more than 14 inches (36 cm) apart, as measured between the centerlines of the rungs, cleats, and steps.
11. Side rail width will be a minimum of 11 ½ inches at the top (inside to inside) and the side rails will spread a minimum of 1 inch for each foot of ladder length.

### B. PORTABLE LADDER SET-UP AND USE

1. Ladders will not be loaded beyond the maximum intended load.
  - a) The maximum intended load, as defined in §1910.21(b), includes the total load (weight and force) of the employee and all tools, equipment, and materials being carried.
  - b) If the load rating is not clearly visible on the ladder, then the ladder must be tagged out service.
2. Ladders placed in locations such as passageways, doorways, or driveways where they can be displaced by other activities or traffic:
  - a) Are secured to prevent accidental displacement; or are guarded by a temporary barricade, such as a row of traffic cones or caution tape, to keep the activities or traffic away from the ladder

3. Place ladder on a stable, level surface. Any ladder (straight or step) used on a slippery surface, unstable or non-level surface must be secured.
4. No ladder is moved, shifted, or extended while an employee is on it.
5. Remain inside the width of the ladder rungs; “keep your belt buckle between the rails and below the top rung.”
6. Always face ladder and maintain three points of contact when traveling up or down the ladder.
  - a) While ascending and descending three points of contact shall be restricted to hands and feet only, using at least one hand to grasp the ladder when climbing up and down.
  - b) While not ascending or descending three points of contact will generally mean two feet and a third body part. (e.g. two feet and a waist)
7. Remove any slippery substances from ladder rungs and bottoms of footwear.
8. No employee carries any object or load that could cause the employee to lose balance and fall while climbing up or down the ladder. Only one person is allowed on a ladder at a time unless specifically approved by the manufacturer and rated for the intended load.
9. Do not use ladders for any purpose other than intended; e.g. brace, skid, guy or gin pole, gangway, etc., unless specifically approved by the manufacturer.
10. Do not use any point of a ladder as a fall arrest anchor point.
11. Do not use ladders with ladder jacks and scaffold planks unless designed for this use by the manufacturer.
12. Ladders will not be placed on boxes, barrels, or other unstable bases to obtain additional height.

### **C. STRAIGHT LADDERS**

1. Follow the manufacturers’ guidelines for the maximum safe standing level and overlapping requirement (minimum 3 feet overlap) for all straight ladders.
2. Straight ladders must be secured (examples of securing the ladder include but are not limited to: tying off the ladder, staking ladder or having another worker hold the ladder in place).
3. Set straight ladders at a 4-foot vertical to 1 foot horizontal ratio to the support structure.
4. Extend ladders used to gain access to a roof or platform at least 3 feet above the point of support, at roofline or platform edge.

### **D. Stepladders**

1. The cap (if equipped) and top step of a stepladder are not used as steps.
2. Do not use a closed step ladder as a straight ladder.
3. Do not straddle a step ladder or use the cap as a seat.

4. Do not climb the back side of a step ladder unless designed for this use by the manufacturer.

#### **E. Mobile ladder stands and mobile ladder stand platforms**

1. Mobile ladder stands and platforms have a step width of at least 16 inches.
2. The steps and platforms of mobile ladder stands, and platforms are slip resistant. Slip-resistant surfaces must be either an integral part of the design and construction of the mobile ladder stand and platform, or provided as a secondary process or operation, such as dimpling, knurling, shotblasting, coating, spraying, or applying durable slip-resistant tapes.
3. Mobile ladder stands and platforms are capable of supporting at least four times their maximum intended load.
4. Wheels or casters under load are capable of supporting their proportional share of four times the maximum intended load, plus their proportional share of the unit's weight.
5. Unless otherwise specified in this section, mobile ladder stands and platforms with a top step height of 4 feet or above have handrails with a vertical height of 29.5 inches to 37 inches, measured from the front edge of a step. Removable gates or non-rigid members, such as chains, may be used instead of handrails in special-use applications.
6. The maximum work-surface height of mobile ladder stands, and platforms does not exceed four times the shortest base dimension, without additional support. For greater heights, outriggers, counterweights, or comparable means that stabilize the mobile ladder stands and platforms and prevent overturning must be used.
7. Mobile ladder stands and platforms that have wheels or casters are equipped with a system to impede horizontal movement when an employee is on the stand or platform; and
  - a) No mobile ladder stand or platform moves when an employee is on it.
8. Design requirements for mobile ladder stands.
  - a) Steps are uniformly spaced and arranged, with a rise of not more than 10 inches and a depth of not less than 7 inches. The slope of the step stringer to which the steps are attached must not be more than 60 degrees, measured from the horizontal.
  - b) Mobile ladder stands with a top step height above 10 feet have the top step protected on three sides by a handrail with a vertical height of at least 36 inches; and top steps that are 20 inches or more, front to back, have a midrail and toeboard.
  - c) Removable gates or non-rigid members, such as chains, may be used instead of handrails in special-use applications.
  - d) The standing area of mobile ladder stands is within the base frame.
9. Design requirements for mobile ladder stand platforms.
  - a) Mobile ladder stand platforms with a platform height of 4 to 10 feet have, in the platform area, handrails with a vertical height of at least 36 inches and midrails.

- b) All ladder stand platforms with a platform height above 10 feet have guardrails and toe boards on the exposed sides and ends of the platform.
- c) Removable gates or non-rigid members, such as chains, may be used on mobile ladder stand platforms instead of handrails and guardrails in special-use applications

**F. PORTABLE LADDER STORAGE**

- 1. Secure and store portable ladders lying down on the ground when possible to prevent them from falling or sliding.
- 2. Protect ladders from damage or degradation due to impact, chemicals or environmental factors.

**G. PROCUREMENT AND DISPOSAL OF LADDERS**

- 1. All procurement and disposal of ladders will be performed through or with the knowledge of the Safety Lead or other designated person.
  - a) Ladders will be destroyed beyond use prior to disposal to render them unusable by any person.
  - b) Procurement of ladders will be accomplished based on the type of work anticipated and in accordance with this safety program and applicable OSHA regulatory standards.

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