1.0 Policy

Work activities requiring the use of approved ladders shall be conducted safely with associated exposures eliminated and/or controlled.

2.0 Purpose

To define the requirements for the safe use of approved ladders.

3.0 Scope

Applies to all Sunbelt Controls work sites.

4.0 Definitions

4.1 General Common Terms

ANSI – stands for the American National Standards Institute that provides ladder-manufacturing guidelines.

Competent Person (for ladders) – a person possessing the ability to identify hazardous or dangerous conditions and shall have the authorization to take prompt corrective measures to eliminate these conditions. A Competent Person shall know how to detect hidden defects, as well as the proper procedures to follow when equipment is found to be defective.

Cleat – a spacer secured to the side rails between the rungs of a job made ladder.

Ladder – a tool usually consisting of two sides rails joined at regular intervals by cross-pieces called steps, or rungs, on which a person may step in ascending or descending.

Rungs/Steps – ladder crosspieces on which a person steps when ascending or descending

Tread – the horizontal member of a step.

4.2 Fixed Ladder Terms

Cage – a guard that may be referred to as a cage or basket guard that is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

Fastenings – a device to attach a ladder to a structure, building, or equipment

Fixed Ladder – a ladder permanently attached to a structure, building, or equipment. It cannot be readily moved or carried because it is an integral part of a building or structure.

Grab Bars – individual handholds placed adjacent to or as an extension above ladders for the purpose of providing access beyond the limits of the ladder.

Individual-Rung Ladder – a fixed ladder each rung of which is individually attached to a structure, building, or equipment

Ladder Safety Device – any device, other than a cage or well, designed to eliminate or reduce the possibility of accidental falls and which may incorporate such features as harnesses/belts, friction brakes and sliding attachments.

Pitch – the included angle between the horizontal and the ladder, measured on the opposite side of the ladder from the climbing side.

Rail Ladder – a fixed ladder consisting of side rails joined at regular intervals by rungs and fastened in full length or in sections to a building, structure, or equipment.

Railing – is a vertical barrier erected along exposed edges of floor openings, wall openings, ramps, platforms, and runways to prevent falls of persons (reference Fall Protection Section Nineteen[19] of this manual).

Side-Step Ladder – a ladder from which a person getting off at the top must step sideways from the ladder in order to reach the landing

Through Ladder – a ladder from which a person getting off at the top must step through the ladder in order to reach the landing.

Well – a permanent complete enclosure of at least three sides or gated around a fixed ladder, which is attached to the walls of the well. Proper clearances for a well will give the person who must climb the ladder the same protection as the cage.

4.3 Portable Ladder Terms

Decay – disintegration, tearing, cracking, loose, etc

Extension Ladder – a non-self-supporting portable ladder adjustable in length; it consists of two or more sections in guides or brackets that permit length adjustment. Length is designated by the sum of the lengths of the sections measured along the side rails.

Extension Trestle Ladder – a self-supporting portable ladder, adjustable in length, consisting of a trestle ladder base and a vertically adjustable single ladder with means for the locking the ladders together; the length is designated by the length of the trestle ladder base.

Platform Ladder – a self-supporting ladder of fixed size with a platform at the working level

Portable Ladder – a ladder that is not an integral part of a building or structure; portable ladders can be readily moved or carried.

Sectional Ladder – a non-self-supporting portable ladder, nonadjustable in length, consisting of two or more sections that function as a single ladder; the length is designated by the overall length of the assembled sections.

Single Ladder – a single section non-self-supporting portable ladder, nonadjustable in length; the length is designated by the overall length of the side rail.

Stepladder – a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back; the length is designated by the overall length of the ladder measured along the front edge of the side rails.

Steps – the flat crosspieces of a stepladder on which a person steps when ascending or descending.

Tread Width – the horizontal distance from front to back of the tread including nosing.

Trestle Ladder – a self-supporting portable ladder, nonadjustable in length, consisting of two sections hinged at the top to form equal angles with the base with rungs on each side; the size is designated by the length of the side rails measured along the front edge.

5.0 Requirements

5.1 Ladder Selection Criteria

The following table outlines the weight-capacity classifications for approved ladder types:

ANSI TYPE APPLICATION WORKING LOAD

- IAA Construction/Services/Shop/Warehouse 350 lbs. Maximum
- IA Construction/Services/Shop/Warehouse 300 lbs. Maximum
- Only ANSI type IAA and IA ladder are approved.

Ladders of these types shall only be of fiberglass/non-conductive material. Wood or job-made ladders are discouraged and require approval by a Competent Person for use under special circumstances. Any job-made ladders must comply with OSHA CFR 29 1926.1053 (a)(2) and Cal/OSHA T8 CCR 3277

Any future-developed ladder with a rating higher in 'working load' capacity than the ANSI type IAA is acceptable.

5.2 Training

Designated Competent Person(s) shall provide annual training to all employees utilizing ladders, either separately or in conjunction with Fall Protection training (reference the Fall Protection Section Nineteen [19] of this manual).

Ladder safety shall also be covered as a part of a new employee's orientation. Individual refresher training shall be required of all employees engaged in work-related near-miss or injury incidents involving ladders.

All training related to applicable ladders shall include:

- The nature of ladder hazards in the work site
- As applicable, the correct procedures for construction (job-made ladders), use, placement and care in handling all ladder types and styles
- The maximum intended load-carrying capacities of all ladder types and styles
- Applicable standards contained in OSHA CFR 29 1926.1053 and those of this policy section

5.3 Inspections

Ladders shall be visually inspected before and after use.

Ladder defects include, but are not limited to:

- Structural defects-such as bent, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components
- Such ladders shall be immediately removed from service and tagged with **"DANGEROUS-DO NOT USE"** sign/tag and immediately reported to your supervisor or a designated competent person
- Such ladders are to be returned to the central tool area for proper disposal or repair by personnel trained to manufacturers' standards. This disposal shall involve cutting the

ladder in two through all rungs parallel to the sides. When ladders are returned to a central 'tool room' for storage, they shall be thoroughly inspected before release to any job. Ladders with defects shall be tagged for non-use if stored, then appropriately disposed.

5.4 Ladder Use and Transportation

5.4.1 Choosing the Proper Ladder

Before a ladder is used, it shall be determined that a ladder is the best device to use (a JSA may be of assistance, reference Section Nine [9] Safety Systems). Scaffolds and mechanical lifts may be a better choice for certain situations. Once a ladder has been determined to be the best option, the proper ladder shall be chosen.

Ladders shall be chosen in accordance with the job to be performed.

Choose ladders based on the ladders rated strength, usable height and load specification. The combined weight of the user, their tools and materials shall not exceed the rating of the ladder. Each ladder shall have a duty rating displayed on a label affixed to the ladder.

5.4.2 Transporting

Two employees should carry step ladders over 10 feet, and straight/extension ladders 20 feet or greater in length.

Any ladder less than ten feet (10') in length can be carried by one employee when supporting the ladder in the middle and to his/her side.

Ladders stored on/in vehicles shall be secured from movement at both ends. Materials used to secure such ladders shall be properly sized and inspected for decay before use and discarded if in disrepair.

Ladders projecting more than three (3) feet from the vehicle body shall be marked with a red 'flag'.

5.4.3 Pre-Setup Rules

All ladders shall be placed on firm, stable footing.

If the ladder is positioned by a door or walkway, ensure that the door is locked or the walkway is barricaded to prevent collisions.

Keep ladders at least ten feet (10') away from energized power lines (all personnel shall be trained and instructed to watch for overhead power lines before erecting any ladder).

When using portable extension ladders, identify–before setup, the location that best allows the proper securing of the ladder at the base and/or top.

If work is to be performed while employees are directly beneath the ladder, position the ladder away from the work, or contact your immediate supervisor to notify them of the scenario before commencing work.

Barriers and/or warnings should be posted while working on a ladder in any high-traffic areas.

5.4.4 Setup and Use

5.4.4.1 Portable Step Ladders

- Ensure that the folding cross braces are locked in the proper position.
- Ensure that the bottom areas of the ladder are kept clear and free of debris.
- Ensure that a portable step ladder is never utilized as a straight or extension ladder (for example, leaning it against an object when climbing).
- Place the top step directly under, or slightly in-front of, the intended work area.
- It is best practice to have someone hold any ladder over twelve feet (12') in height while ascending/descending/ performing work.
- Where possible, do not work with the side rails facing the working surface.
- Never climb the back side of a ladder, straddle or sit on the top step.

5.4.4.2 Portable Straight and Extension Ladders

Place a straight or extension ladder at an angle of 4:1. For every 4 feet of height, the base of the ladder should be out 1 foot (i.e., one horizontal foot from the support point). With the ladder already leaning at an angle against the surface, place your feet at the feet of the ladder and extend your arms straight. Move the ladder until the point where the palms of your hands meet a rung. At this point the ratio should be approximately 4:1.

Ensure that both side rails make contact with the structure at the bearing point. If this is not possible, use a cross brace to distribute the load to both side rails.

For ladders up to thirty-six feet (36') in length, ensure that the ladder extends at least three feet (3') (approximately three rungs) beyond the surface being accessed. Further overlap adds stability.

For ladders over thirty-six feet (36'), check the current OSHA standards.

Ensure that a straight or extension ladder is never placed in a horizontal position as a substitute for a scaffold or a runway between two elevated locations.

Ensure that a straight or extension ladder is never placed directly against a windowpane or sash.

Ensure that the top and bottom areas of the ladder are kept clear and free of debris.

The top end of the ladder should extend 3 feet (3') above the upper landing and tied off at the top to a secure point.

5.4.4.3 Fixed ladders

Ladders 24 feet and longer shall be provided with cages, wells, ladder safety devices, or self-retracting lifelines regardless of the climbing distance.

Top and bottom areas of the ladder should be kept clear and free of debris.

Ladder rungs shall be at least seven inches (7") from the wall to which the ladder is attached.

5.5 General Rules for Use of Any Style/Type Ladder

All ladders shall only be used as specified by the manufacturer.

Never jump from or onto any ladder. Never slide down a ladder.

Remove any ice, snow, mud or other slippery substance from the rungs/steps.

Always use the 3-point rule when climbing up or down. At least two hands and one foot, or two feet and one hand, should be in contact with the ladder at all times.

Ladders cannot be moved, shifted or extended while employees are on them.

Always face the ladder when ascending or descending.

If tools are needed, they should be carried in a tool belt or pulled up with a rope once the employee has reached his/her destination.

When ascending or descending, tools/equipment/supplies that cannot be readily carried in a tool pouch shall be handled by another employee on the ground or lowered/raised to/from the ground by the employee on the ladder once positioned safely on the ladder.

Do not store tools or materials on the top of ladders.

Do not lean out from the ladder in any direction. This type of action could cause the user to lose balance and fall. With a properly positioned ladder the work should always be directly in front of you.

Wear slip resistance footwear for climbing/descending, such as work boots.

Do not use the top two steps of a portable stepladder and the top four rungs on other ladders. Those steps/rungs are necessary for balance only.

Obtain a larger ladder if more height is needed.

Always climb slowly with your weight centered between side rails.

Never join two short ladders to make a longer one. The side rails will not be strong enough to support the extra load.

5.6 Maintenance and Storage

5.6.1 Maintenance

Ladders should never be painted (other than for property marking) because paint may hide defects that could lead to ladder failure.

5.6.2 Storage

Never store ladders in such a way that they present a tripping hazard or could potentially fall on employees.

Keep ladders in areas where they will not come into contact with oil, grease or other slipping hazards.

Store and secure ladders in a safe and dry place, out of direct exposure to the sun and other weather elements whenever possible.

6.0 References

OSHA 29 CFR 1926.1050 - 1060
OSHA 3124-12R