

Ladder Safety Program

Safety - Elevated Fall

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Effective: 06/10/2009

Revised: 02/18/2022

Purpose

The purpose of the workcampNE Ladder Safety Program is to protect attendees from the hazards of ladders.

Scope

This program covers general practices and requirements for safe use of portable extension and step (A-frame) ladders.

Definitions

<u>Attendees - All students and adults registered to attend one or more weeks of camp, employees, and volunteers are considered "attendees."</u>

<u>Extension ladder</u> - A non-self-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets or the equivalent and so arranged as to permit length adjustment.

<u>Ladder</u> - A device incorporating or employing steps, rungs, or cleats on which a person may step to

ascend or descend.

<u>Step ladder</u> - A self-supporting portable ladder, non-adjustable in length, with flat steps and a hinged based, sometimes called an A-frame ladder.

<u>Top cap</u> - The uppermost horizontal member of a portable stepladder.

<u>Top step</u> - The first step below the top cap of a portable stepladder. Where a ladder is constructed

without a top cap, the top step is the first step below the top of the rails.

<u>Working length</u> - The length of a non-self-supporting portable ladder measured along the rails from the

base support point of the ladder to the point of bearing at the top.

<u>Working load</u> - Maximum applied load, including the weight of the user, materials, and tools, that the

ladder is to support for the intended use.

Responsibilities

workcampNE will protect its attendees from hazards related to ladders through engineering controls, safeguards, communication of hazards and solutions, training, and personal protective equipment (PPE).

<u>Administration</u>

The workcampNE administration is responsible for implementation and execution of this program.

- Identifying hazardous conditions in regards to ladders
- Periodic review to ensure that this policy is being adhered to
- · Providing safety awareness training, as needed
- Maintaining training records
- Providing additional on-the-job (OJT) training if the employee is not familiar with the ladders or verifying that OJT has taken place.
- Providing safe ladders



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Removing defective ladders from service.

Attendees

All attendees are expected to use ladders responsibly. They will;

- Anticipate work hazards.
- Understand and follow the ladder safety procedures in this program.
- Follow safety guidelines for the use of ladders according to manufacturer's instructions.
- Inspect ladders before use.
- Refrain from using damaged ladders.
- Use the right ladder for the job.
- Immediately pull damaged ladders from use and report them to a crew leader or wcNE representative.

Procedure

- Ladder use shall be restricted to the purpose for which the ladder was designed.
- The duty rating of the ladder must be clearly indicated on the ladder.
- The working load to be placed on the ladder including the person and tools must be less than the duty rating.
- Ladders shall not be climbed by more than one person at a time.
- Stepladders shall not be used as single ladders or in the closed or partially closed position.
- The user shall not step or stand higher than the step or rung indicated on the label marking the highest standing level on a ladder.
- The user shall not step or stand on the ladder top cap and the top step of a stepladder or a combination ladder configured as a self-supporting ladder.
- The rear braces of a stepladder may not be used for climbing.

<u>Angle of Inclination</u> – Portable non-self-supporting ladders should be erected at a pitch of approximately 75 degrees from horizontal, (or 1 foot horizontal for every 4 feet vertical) for optimum resistance to sliding, strength of the ladder, and balance of the climber. A simple rule for setting up a ladder at the proper angle is to place the base a distance from the wall or upper support equal to one-quarter the effective working length of the ladder. Effective working length is the distance along the side rails from the bottom of the support point of the upper portion of the ladder.

<u>Footing Support</u> – The ladder base shall be placed with a secure footing on a firm, level support surface. Ladder levelers may be used to achieve equal rail support on uneven surfaces. Devices such as shoes, spurs, spikes, combinations thereof, or similar device of substantial design should be installed where required for slip resistance and bearing areas. Where ladders with no safety shoes, spurs, spikes or similar devices are used, a foot ladder board or similar device may be employed. Ladders shall not be used on ice, snow, or slippery surfaces unless suitable means to prevent slipping are employed. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.



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<u>Side Loading</u> – Portable ladders are not designed for excessive side loading, and such abuse of the ladder shall be avoided. The ladder shall be kept close to the work. The user shall not overreach, but shall descend and relocate the ladder instead. When using a ladder, the user shall never push or pull unless the ladder is properly secured.

<u>Climbing Ladders</u> – When ascending or descending the ladder, the user shall face the ladder and maintain a firm hold on the ladder. It is preferable to grasp the rungs with an overhand grip as opposed to grabbing the rails. Grip strength is improved while grasping the rungs. Three points of contact with the ladder should be maintained at all times. Recommended climbing pattern is hand, hand – foot, foot. Belt buckle area of the body should remain centered on the ladder and never extend beyond the side rails.

<u>Electrical Hazards</u> – Users are cautioned to take proper safety measures when ladders are used in areas

containing electrical circuits. These precautions should prevent any contact or possible contact with an energized, uninsulated circuit or conductor in order to avoid electrical shock or short circuit. All ladders should be kept away from electric power lines. workcampNE suggests a minimum of 5 feet of distance away from where electrical lines enter the homes.

<u>Access to Roof or Platform</u> – When a single section or extension ladders are used to gain access to a roof or platform, the top of the ladder shall extend at least 3-feet above the point of support at the eaves, gutter, platform or roofline. The user shall take care when ascending from the ladder to the roof or/platform or descending from the roof/platform to the ladder to avoid tipping the ladder over sideways or causing the ladder base to slide.

<u>Doorways</u> – Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.

<u>Set-Up and Adjustment of Extension Ladders</u> – Adjustment of extension ladders shall only be made by the user when standing at the base of the ladder so the user may observe when the locks are properly engaged. The user shall check that the rope is tracking correctly in the pulley. Adjustment of extension ladders from the top of the ladder (or any level over the locking devices) is a dangerous practice and shall not be attempted. Adjustments shall not be made while anyone is standing on the ladder. The user shall ensure that both upper and lower ladder support points are contacting firm support surfaces. Combination ladders used in a non-self-supporting configuration require that the same procedures be observed.

<u>Set-Up of Stepladders</u> – The user shall ensure that the stepladder is fully opened, with spreaders locked and all feet in contact with a firm and level support surface.

Hazard Assessments

The workcampNE administration will ensure that a hazard assessment is conducted during the site assessment in each work area where ladders may be used. Once hazards are identified, the staff will recommend appropriate control measures of elimination, substitution, engineering, and/or administrative and provide guidance on hazard control that is feasible/satisfactory.



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General Safety Requirements

Inspection – A thorough ladder inspection shall be made when the ladder is originally purchased received, and put into service. The ladder shall be inspected before each use. Working parts and rung/step-to-side-connections shall be checked. A portable ladder inspection checklist is attached to this program to assist with the inspection (Attachment A). In addition, a link is provided in the resources section of this program for the National Institute of Occupational Safety and Health Ladder Safety App. The app has inspection checklists for various types of ladders. Where structural damage or other hazardous defect is found, the ladder shall be taken out of service and either discarded or repaired by a competent mechanic. Ladder safety systems shall be inspected by the user prior to each use, by a competent person at least annually and according to the manufacturer's recommendations.

<u>Damaged Ladders</u> – Broken or bent ladders shall be marked and taken out of service until they are repaired by a competent mechanic or destroyed in such a manner as to render them useless. The user shall not attempt to repair a defective side rail.

Ladder Maintenance

Proper ladder maintenance ensures the safe condition of the ladder. Hardware, fittings, and accessories should be checked frequently and kept in proper working condition. All pivoting connections and the rung-lock cam surfaces should be lubricated frequently. All bolts and rivets shall be in place and secure before using a ladder, and no ladders shall be used if any bolts or rivets are missing or if the joints between the steps (or rungs) and the side rails are not tight. Ladders with safety shoes or padded feet which are excessively worn shall be taken out of service until repaired.

Fixed and portable ladders and step stools shall at minimum meet the appropriate Occupational Safety

and Health Administration (OSHA) and American National Standards Institute (ANSI) A14.1 materials

and construction specifications.

Housekeeping

Work areas will need to be kept as clean by the attendees and dry as possible to prevent slips and falls. Ladders will be taken down each day and will be stored when not in use, placed out of the way and out of general sight to minimize theft.

Training

All attendees will pass the written portion of the safety program with a score of 80% or better. The written portion comprises 4 areas and associated quizzes; General, Drills, Saws, and Roofing. Each attendee is required to pass the General quiz and as many of the other 3 that apply to work they will be doing while serving with workcampNE.

All attendees not considered proficient with power tools will participate in the "hands on" portion of the training - demonstrating competency with the tool(s).



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Periodic Program Review

At least annually, the Program Administrator will conduct a review to assess the plan's effectiveness. The review will consider the following:

- Injury trends and general safety observations
- Lessons learned from accidents and near misses
- Changes in operations or equipment
- New technology
- Regulatory changes
- The annual review report will be submitted to senior management.