



Employee Safety and Health Program

Policy 14: Ladder Safety Policy

References: North Carolina State Employees' Safety and Health Handbook (pg. 46-49)

Purpose: The purpose of this ladder safety policy is to ensure North Carolina Department of Labor employees properly and safely use, maintain, and store portable ladders *and*;

To establish the minimum inspection criteria for all ladders, both fixed and portable, *and*;

To ensure North Carolina Department of Labor employees are protected from accidental falls while using portable ladders.

Falls from portable ladder can cause serious life altering injuries. These injuries can include dislocated limbs, broken bones, head injuries and in a few incidences death.

Listed below are a few of the causes for injuries and hazards associated with ladder use:

1. Incorrect usage including failure to set ladder up correctly;
2. Struck by a falling portable ladder;
3. Struck by items/materials which fall from portable ladder;
4. Carrying or loading a ladder incorrectly;
5. Ladder movement due to unstable/unlevel ground;
6. Ladder in disrepair;
7. Employee slip(s);
8. Employee falls off ladder due to:
 - a. Over-reaching
 - b. Object in employees hand while climbing and/or descending ladder
 - c. Visional inadequacy

For the use of a ladder not owned by North Carolina Department of Labor, the employee shall inspect the ladder per requirements of this policy. If the ladder does not meet the requirements of this policy: DO NOT USE.

Definitions: **Fixed Ladder** - A device consisting of two side rails joined on regular intervals with steps, rungs, or cleats on which a person may step for ascending or descending which is fasten to a structure, building, or equipment.

Portable Ladder - A device consisting of two side rails joined on regular intervals with steps, rungs, or cleats on which a person may step for ascending or descending.

Step Ladder - A portable ladder with a self-supporting "A" frame design. Single sided stepladders consist of a climbing side and a supporting side. Double-sided stepladders consist of two climbing sides.

Scope:

- I. All North Carolina Department of Labor employees who use portable, fixed or stepladders shall have ladder safety training.



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II. Supervisors shall be responsible to ensure:

- A. Employees who use a ladder read and understand the ladder safety policy *and*;
- B. Each employees' ladder safety training is documented *and*;
- C. Provide the employees who use a ladder a safe serviceable and appropriate ladder type required within the scope of employee's task and/or job.

Procedures:

I. Safe Ladder Setup and Proper Use

A. Portable Ladders

- i. Inspect the ladder before each use per manufacturer's specifications;
- ii. All portable ladders must be placed on firm ground;
- iii. Do not set up a ladder(s) on top of boxes, blocks or other objects that may move;
- iv. Do not lean or reach out while standing on a ladder; if you cannot reach safely, step down and move the ladder closer;
- v. Secure the ladder whenever a danger of slippage is present
- vi. Do not use a outdoors during inclement weather conditions;
- vii. Never set up a ladder in front of, or around doors, unless posted, barricaded or locked;
- viii. Use the ladder according to manufacturer's specifications;
- ix. Always open a portable ladder completely and lock the spreader in place before use;
- x. Never use metal portable ladders near exposed electrical wires;
- xi. When deemed appropriate, place warning signs or setup a barrier around the ladder before use;
- xii. Do not move ladder while someone is on it;
- xiii. Do not leave tools or materials on the top of a ladder when not in use;
- xiv. Only one (1) person allowed on a ladder at a time.
- xv. Do not rock a ladder in order to move it;
- xvi. Store ladder per manufacturer's specifications;
- xvii. Ensure ladder is secure when in transport;

B. Extension Ladders

- i. Never splice or tie two short ladders together;
- ii. When using a ladder for access to a landing, it must extend three (3) rungs or three (3) feet above the landing;
- iii. The top of an extension ladder should rest against a flat, firm surface;
- iv. Elevate and extend these extension ladders only from the ground;



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- v. When practical, secure extension ladders at both the base and the top;
- vi. The sections of an extension ladder should overlap enough to retain the strength of the ladder.
*(See Table 1A).

Table 1A

Length of Ladder Required Overlap	
Up to 36'	3 Feet
Over 36'to 48'	4 Feet
Over 48' to 60'	5 Feet

C. Fixed Ladders

- i. Fixed ladders must be secured to the object in which they are attached to;
- ii. Fixed ladders over 20 feet must have a safety cage surrounding the ladder;
- iii. The safety cage should have a 15" clearance to all points from the center.

II. Climbing and Standing on a Ladder Safely

A. Portable Ladders

- i. Always face the ladder when climbing or descending;
- ii. Do not carry materials or tools when climbing a ladder, climb the ladder first then pull up the material with a rope or have someone hand you the items;
- iii. Ensure rungs and steps are clear of all impediments;
- iv. Do not climb onto a portable ladder from the side;
- v. Do not slide down the ladder;
- vi. Do not climb or stand on a ladder with your feet in the center of the rung;
- vii. Do not stand on the top rung or top plate of the ladder;
- viii. Do not straddle a portable stepladder;
- ix. Do not sit on a ladder;
- x. Maintain three (3) point contact with the ladder at all times.

B. Extension Ladders

- i. Side rails, rungs, fastenings, rods, and braces shall be visually inspected for damage resulting from wear, weather, or abuse;
- ii. Ensure the ladder is braced against a solid foundation;



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- iii. From the ground position, pick up the ladder and "walk it" to an upright position, making sure it will not be obstructed by trees or wires;
- iv. Slide the bottom of the ladder outwards to the proper angle and set the feet correctly;
- v. Then extend the ladder by pulling the extension line;
- vi. Ensure the rungs on the upper half of the ladder are properly secured by the locking mechanism;
- vii. If possible, tie the ladder off or have someone steady the ladder as you climb it;

C. Assessing an Upper Level Walking/Working Surface

- i. NCDOL Employees will visibly determine if the ladder extends three (3) feet above the landing surface;
- ii. Upon accessing a walking/working surface via an extension ladder, an employee will determine if an appropriate guardrail system is in place before stepping off the ladder on to the walking/working surface. If employee determines no guardrail is in place, the Employee shall not continue to the walking/working surface, and descend the ladder.

D. Fixed Ladders

- i. While standing on the landing visually inspect the first 10 feet of the fixed ladder;
 - a) Side rails, rungs, fastenings, rods, and braces shall be visually inspected for damage resulting from wear, weather or abuse before use
- ii. While standing on the landing firmly grasp the ladder with hand, pull away from the supporting structure to ensure fastening points have not eroded, and/or secure to the structure;
- iii. Ladder rungs and rails are not to be used for tie off points;
- iv. Always face the ladder when climbing or descending;
- v. Maintain a three (3)-point stance when climbing;

Note: Be sure to position body while pulling, so that if ladder breaks away from supporting structure, injury will not occur.

III. Care of Ladders

A. Portable Ladders

- i. Store ladder per manufacturer's specifications; (when applicable);
- ii. Ensure ladder is secure when in transport; (when applicable);
- iii. Tag and remove any defective ladder(s) from service immediately.

B. Extension Ladders

- i. Lay the ladder on the ground when not in use.



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IV. Training:

- I. Ladder safety training shall consist of recognition of possible hazards associated with ladder use, proper maintenance, and safety precautions while using a ladder. Employee training can be accomplished by video, leader-led, and/or web-based training.



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