St. Norbert College

LADDER SAFETY POLICY (29 CFR 1910.25-27)

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1. **INTRODUCTION** – The purpose of the St. Norbert College Ladder Safety Policy is to ensure employees use ladders safely and effectively as well as to enable each employee to recognize hazards related to ladders. OSHA requires that safe equipment be furnished for use. It is the responsibility of the user to use the equipment safely. Most falls from ladders are from using them in an unsafe manner. Employees and others may be injured or disabled or the fall could be fatal if ladder safety rules are not followed. To use ladders safely and effectively, employees must:

    a. Know the rules of ladder safety

    b. Observe these rules at all times

    c. Ensure all ladders being used meet OSHA/ANSI specifications

    d. Damaged ladders/equipment shall be immediately removed from service and tagged "Out of Service"

2. **SCOPE** - This document applies to all faculty, staff, and any contractors working on St. Norbert College property.

3. **RESPONSIBILITIES**

    a. **Departments** - Management commitment to the Ladder Safety Policy begins with the selection of the proper ladder for the job, and includes inspection, setup, proper climbing and standing, proper use, care, and storage of ladders. Management believes that the combination of safe equipment and its safe use can eliminate most ladder accidents.

    b. **Human Resources (HR) Environmental Health and Safety Specialist**

        i. Review changes in operations and keep current with new processes and/or facilities within the college and identify new requirements pertaining to this policy, when needed.

        ii. Work with managers and coordinate efforts to analyze, minimize ladder-related incidents.

        iii. Document training records and maintain in divisions folders.

        iv. Ensure that hazard assessments have been completed to determine risks associated with ladders

    c. **Departmental Managers**

        i. Implement and enforce, within their respective area(s) of responsibility, to ensure compliance with all aspects of this policy.

ii. Provide proper ladder for use to the employee.

iii. Evaluate the workplace to identify substandard or otherwise hazardous ladder equipment.

iv. Ensure that employees who utilize ladders receive periodic training.

v. Establish and maintain a system, which ensures the proper inspection, maintenance and storage of all ladders.

d. **Employees**

i. Use personal protective equipment (PPE) as instructed and in accordance with ladder training received or as directed by supervisors.

ii. Maintain ladders and report any damage or loss to supervisor or manager.

iii. Remove damaged ladders/equipment from service and tag the equipment "out of service".

4. LADDER SELECTION

a. Be sure the ladder being used has the proper duty rating to carry the combined weight of the user, tools and the material being installed.

b. A ladder's duty rating tells you its maximum weight capacity. There are four categories of duty ratings:

Type IA These ladders have a duty rating of 300 pounds. Type IA ladders are recommended for extra-heavy-duty industrial use.	**Type I** These ladders have a duty rating of 250 pounds. Type I ladders are manufactured for heavy-duty use.
Type II These ladders have a duty rating of 225 pounds. Type II ladders are approved for medium-duty use.	**Type III** These ladders have a duty rating of 200 pounds. Type III ladders are rated for light-duty use.

c. **Type IA and I are the only acceptable ladders on an installation site.**

d. **Use of household duty step stools is prohibited.**

e. The American National Standards Institute (ANSI) requires that a duty rating sticker be placed on the side of every ladder so users can determine if they have the correct type ladder for each task/job.

f. Be sure that steps and rungs are grooved or roughened to prevent slipping.

g. Use the proper size ladder for the job.

i. Most employees work comfortably at shoulder level, which is about 5 feet above where they stand.

ii. Since employees stand about 2 feet down from the top of a ladder, the maximum working height would be about 3 feet above the top of the ladder (or 5 feet minus 2 feet). For example, a 5-foot stepladder would give a working height of 8 feet: 5 feet (ladder height) plus 3 feet (working height of ladder).

iii. When using straight or extension ladders, the employee stands 3 feet down from the top, which gives an effective working height of 2 feet above the ladder top.

5. TYPES OF LADDERS

a. **Stepladders -** A stepladder is a self-supporting portable ladder, non adjustable in length, having flat steps and a hinged back.

i. Stepladders shall be equipped with a spreader or locking device of sufficient size and strength to securely hold the front and back sections in open position.

ii. Always open a stepladder completely and make sure the spreader is locked before using the ladder.

iii. Never substitute makeshift devices of wire or rope for stepladder spreaders.

iv. Do not stand higher than the second step from the top of a stepladder. Do not stand or sit on the top cap, on the pail shelf or on the back of a stepladder.

v. Do not straddle the front and back of a stepladder.

vi. It is intended for use by one person and shall be no longer than 20 feet.

b. **Single and Extension Ladders - Information**

i. The Single Ladder is a non-self-supporting portable ladder that is non-adjustable in length, consisting of one section. It is intended for use by one person and shall be no longer than 30 feet.

ii. The Extension Ladder is a non-self-supporting portable ladder that is adjustable in length. It consists of two or more sections that travel in guides or brackets so arranged so as to permit length adjustment. It is intended for use by one person and shall be no longer than 60 feet.

iii. The sections of an extension ladder should overlap enough to retain the strength of the ladder using the following table:

Length of Ladder	Required Overlap
● Up to 36 feet	● 3 feet
● Over 36 to 48 feet	● 4 feet
● Over 48 to 60 feet	● 5 feet

iv. The usable length of the ladder is shortened by the amount of the overlap.

v. Never stand on the top two rungs of a single or extension ladder.

vi. The top of the ladder should rest evenly against a flat, firm surface. If a ladder is to be leaned against roof gutters, the strength and stability of the gutters should first be tested.

vii. When a ladder is used for access to an upper landing surface, it must extend three rungs, or at least three feet above the landing surface. Step sideways off the ladder onto the roof/landing surface.

viii. A ladder used for access to an upper landing surface should be secured against sideways movement at the top or held by another worker whenever it is being used.

ix. Extend an extension ladder only from the ground. Determine the needed height, extend and lock the fly section securely in place then set it up against the wall. Check for stability and support before climbing.

x. If possible, the base of a long ladder should be secured to the ground and the top should be tied to the upper landing surface.

xi. The proper angle for a non-self-supporting ladder is about 75 degrees above horizontal. This means that the base should be set out one-fourth of the ladder's height to its top support point.

xii. For example, if a ladder is to be supported at a point 20 feet off the ground, its base should be set 5 feet out from the wall (20 feet divided by 4 = 5 feet). An easy way to measure this: if the ladder top will rest against the wall, pace off the length of the ladder or count the rungs, and divide by four to get the proper distance from the wall for placing the foot of the ladder.

xiii. If ladders are set up at a steeper angle than 75 degrees above horizontal they are more likely to tip backward in use. As a minimum they must be tied off at the top to prevent this from happening.

xiv. If ladders are set up at an angle less than 75 degrees above horizontal they are more likely to slide out from the bottom. Safety ladder shoes or base tying is a must in this case.

xv. The distance from the foot of a ladder to the wall should never be more than one-half the height to the support point, an angle of about 63 degrees above horizontal. Otherwise, more strain will be put on the side rails than they are designed to carry.

6. **SETTING UP A SINGLE OR EXTENSION LADDER -** It is very important to learn the proper methods for setting up ladders. Proper setup can avoid damage to the ladder and excessive physical strain on the user.

    a. Step 1. Lay the ladder on the ground with the base resting against the bottom of the wall and the top pointing away from the wall.

b. Step 2. Starting at the top of the ladder, lift the end over your head and walk under the ladder to the wall, moving your hands from rung to rung as you go.

c. Step 3. When the ladder is vertical, and the top touches the wall, pull out the base so that the distance away from the wall is about one-fourth of the height to the point of support.

d. Step 4. Reverse this process to take down the ladder. Remember that you will be walking backwards, so check for obstacles in your path before starting. Also be careful to lower the ladder slowly so that you can keep it under control and prevent its falling on you.

7. FIXED LADDERS-INFORMATION

a. A fixed ladder is a ladder permanently attached to a structure, building or equipment. A point to remember is that fixed ladders, with a length or more than 20 feet to a maximum unbroken length of 30 feet shall be equipped with cages or a ladder safety device.

b. A "cage" is a guard 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.

c. Cages shall extend a minimum of 42 inches above the top of a landing, unless other acceptable protection is provided.

d. Cages shall extend down the ladder to a point not less than 7 feet or more than 8 feet above the base of the ladder.

e. Fixed ladders should have a lockable cover that prevents unauthorized entrants from accessing the ladder.

8. FIXED LADDER SETUP

a. Always check a ladder before using it. Inspect wood ladders for cracks and splits in the wood. Check all ladders to see that steps or rungs are tight and secure. All hardware fittings should be properly secured. Inspect aluminum and fiberglass ladders for bends and breaks. Document the inspection on a safety inspection tag tied onto an innocuous location on the ladder.

b. Place ladder feet firmly and evenly on the ground or floor. Make sure the ladder is sitting straight and secure before climbing it. If one foot sits in a low spot, build up the surface with firm material.

c. Do not try to make a ladder reach farther by setting it on boxes, barrels, bricks, blocks or other unstable bases.

d. Level ladders before using - do not allow ladders to lean sideways.

e. Brace the foot of the ladder with stakes or place stout boards against the feet if there is any danger of slipping.

f. Never set up or use a ladder in a high wind, especially a lightweight aluminum or fiberglass type. Wait until the air is calm enough to insure safety.

g. Never set up a ladder in front of a door unless the door is locked or a guard is posted.

h. Do not use ladders on ice or snow unless absolutely necessary. If they must be used on ice or snow, use spike or spur-type safety shoes on the ladder feet and be sure they are gripping properly before climbing.

i. Use safety shoes on ladder feet whenever there is any possibility of slipping.

9. LADDER CLIMBING AND STANDING

a. Keep the steps and rungs of ladders free of grease, oil, wet paint, mud, snow, ice, paper and other slippery materials. Also clean such debris off your shoes before climbing a ladder.

b. Always face a ladder when climbing up or down. Use both hands and maintain a secure grip on the rails or rungs.

c. Never carry heavy or bulky loads up a ladder. Climb up yourself first, and then pull up the material with a rope.

d. Climb and stand on a ladder with your feet close to the center of the steps or rungs.

e. Do not overreach from a ladder or lean too far to one side. Overreaching is one of the most common causes of falls from ladders. A good rule is to always keep your belt buckle inside the rails of a ladder. Work only as far as you can reach comfortably and safely, then climb down and move the ladder to a new position.

f. Never climb onto a ladder from the side, from above the top or from one ladder to another.

g. Never slide down a ladder.

10. PROPER USE OF LADDERS

a. Never use aluminum ladders around exposed electrical wiring. Aluminum ladders should be marked with tags or stickers reading "CAUTION - Do Not Use Around Electrical Equipment" or similar wording. RULE of THUMB: If the overhead power line is 50 kV or less, then stay at least 10 feet away. For everything else, keep at least 35 feet away.

b. When using a ladder where there is traffic, erect warning signs or barricades to guide traffic away from the foot of the ladder. If this is not possible, have someone hold and guard the bottom of the ladder.

c. NEVER try to move a ladder while you are on it by jumping, rocking, jogging or pushing it away from a supporting wall.

d. Never use a ladder when in ill health, under the influence of alcohol, or on drugs or medication.

e. If you get sick, dizzy or panicky while on a ladder, do not try to climb down in a hurry. Wait. Drape your arms around the rungs; rest your head against the ladder until you feel better. Then climb down slowly and carefully.

f. Do not leave tools or materials on top of ladders. They could fall on you or someone else.

g. Never push or pull anything sideways while on a ladder. This puts a side load on the ladder and can cause it to tip out from under you.

h. Allow only one person at a time on a ladder unless the ladder is specifically designed for two people.

i. Never use a ladder as a horizontal platform, plank, scaffold or material hoist.

11. PROPER LADDER CARE AND STORAGE

a. Maintain ladders in good condition. Keep all ladder accessories, especially safety shoes in good condition.

b. Ladders with bent or broken side rails must be destroyed.

c. Wood ladders, which are to be used outside, should be treated to prevent weather damage. A clear finish or transparent penetrating preservative should be used. Linseed oil is a good treatment for a wood ladder, although it does add some weight to the ladder. An oil treatment also helps to rustproof the metal parts of a wood ladder.

d. Never paint a wood ladder. This will cover dangerous cracks or fill and hide them.

e. Never use an aluminum or fiberglass ladder which has been exposed to fire or strong chemicals. If the ladder is sun damaged to the point of weakening, it should be discarded.

f. Store wood ladders where they will not be exposed to excessive heat or dampness. Store fiberglass ladders where they will not be exposed to sunlight or other ultraviolet light sources.

g. Be sure that ladders are properly supported and secured when in transit. Vibration and bumping against other objects can damage them.

h. Store and secure ladders in a way that gives them proper support and will not allow them to tip over when not in use. Designate a storage area for the ladders against the end of racking or against a wall. Secure the ladders to the racking or wall by using rope, chain or bungee cords and eye bolts.

i. Metal bearings of extension ladder rung locks and pulleys should be lubricated periodically, and between regular maintenance periods whenever necessary.

j. Ropes on extension ladders should be in good condition. If they become frayed or worn, replace them.

k. When discarding a ladder, it must be destroyed in such a manner as to render it useless. Another person must not be given the opportunity to use a ladder that has been deemed unsafe.

12. VISITORS & OTHER PERSONNEL - Visitors, contractors (personnel not under the direct supervision of the college), and other personnel will be required to comply with all administrative controls and protective equipment requirements specified in this policy.

13. POLICY EVALUATION - The HR Environmental Health and Safety Specialist will conduct periodic evaluations of the workplace to ensure that the provisions of this policy are being implemented. The evaluation will include regular consultations with employees who utilize

ladders, their supervisors, site inspections and review of records. Identified problems will be noted and addressed by the HR Environmental Health and Safety Specialist. These findings will be reported to management, and the report will list plans to correct deficiencies and target dates for the implementations of those corrections.

14. **DOCUMENTATION AND RECORDKEEPING -** Copies of training will be retained. These records will be updated as new employees are trained and as existing employees receive refresher training. Training records shall be maintained with the HR Environmental Health and Safety Specialist.

15. **POLICY REVIEW AND UPDATE** - This policy shall be reviewed and updated on an annual basis or sooner if necessary.

Date	Update or Revision	By Whom
2/8/18	Initial Policy Creation	M. Eddy
6/22/18	Applied updates from E. Jahnke	M. Eddy