

# Fall Protection

Under the Nova Scotia Health and Safety Act, an employer must provide fall protection for workers in a number of situations.

Fall protection is required when a person is at risk of falling these distances in any of these conditions:

- Working **3 m or more** above the nearest safe surface or water; OR
- Working **less than 3 m** above a surface or thing that could cause an injury worse than landing on a solid, flat surface; OR
- Working **less than 3 m** above an exposed hazardous material (e.g. open tank, pit or vat).

Under the following circumstances, fall protection must only be used if feasible:

- When working on or from a vehicle rail car or other mobile equipment; OR
- When a person is not able to maintain three-point contact while performing work from a ladder.

If it is not feasible to use fall protection in the above circumstances, the employer must ensure an alternate control measure is used to reduce the risk of a fall.

## Training Requirements, Topics and Records

**Training** — Employers must ensure workers successfully complete fall protection training:

- **Before** they use fall protection, or work in, supervise or plan the work where fall protection is required; **and then**, at least once every three (3) years.

Training must be instructed by a competent person, either the employer or a training organization. In order to be considered to have successfully completed training, the trainer must deem the person competent to inspect and use fall protection. It is the responsibility of the trainer to identify the method of evaluation.

**Records** — The following people must maintain records of successfully completed training:

- Employer
- Training organization conducting the training

The record must include:

- Name of the participant \*
- Date(s) of training \*
- Name of instructor
- Name of the employer \*
- Name of the training organization, if not the employer \*
- Description of the training \*
- Expiry date before which training must be renewed \*

\* *must be included on training certificate*

**Topics** — The following topics must be included in the training, as it applies to the work to be performed:

- Review of all applicable health and safety legislation, regulations and standards
- Identification of fall hazards
- Review of the hierarchy of controls to be used to eliminate or minimize the risks of injury
- Different methods of fall protection and most suitable application of methods
- Fall protection and safe work procedures
- Instruction on assessing and selecting specific anchors
- Instruction on selecting and correctly using all components, including connecting hardware
- Information about the effect of a fall on the human body, including:
  - Free fall
  - Swing fall
  - Maximum arresting force
  - Purpose of energy absorbers
- Pre-use inspections of equipment and systems
- Emergency response procedures to be used if a fall occurs

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### Training Requirements, Topics and Records (cont'd)

- k. Practice in all of the following:
  - i. Inspecting, fitting, adjusting and connecting fall protection systems and components
  - ii. Emergency response procedures required

Those who successfully complete the training must receive a training **certificate or card**, signed by the instructor. The training certificate must be available at the workplace at all times.

### Written Fall Protection Safe Work Procedure

A written fall protection safe work **procedure** must be established where fall protection is required and the maximum fall distance is **less than 7.5 m** (24' 6"), unless:

- Workers are protected by a permanent guardrail; **OR**
- The work is performed on a work platform, which is covered by its own regulations (CSA Section 23.12 – 23.15).

A hazard assessment of the work typically performed must be done before developing a fall protection safe work procedure. The procedure must include:

- a. Nature of the work to be performed
- b. Typical duration of the work
- c. Description of the work
- d. A list of primary tools or equipment to be used.
- e. Reference applicable health and safety legislation and regulations
- f. A list of potential fall hazards and associated risks.
- g. Risk controls to be used to prevent injury
- h. Effect of weather conditions
- i. Name or position of the person who has the supervisory responsibility
- j. Training and qualifications required, as determined by the employer
- k. Method for communicating the fall protection safe work procedure to all those affected

### Written Fall Protection Safe Work Plan

A written fall protection safe work **plan** must be established where fall protection when the potential fall distance is **more than 7.5 m** (24' 6"), unless:

- Workers are protected by a permanent guardrail; **OR**
- The work is performed on a work platform, which is covered by its own regulations (CSA Section 23.12 – 23.15).

A hazard assessment of the work typically performed must be done before developing a fall protection safe work plan. The plan must include:

- a. Nature of the work to be performed
- b. Typical duration of the work.
- c. Description of the work
- d. A list of primary tools or equipment to be used
- e. Reference applicable health and safety legislation and regulations
- f. A list of potential fall hazards and associated risks
- g. Fall protection system(s) to be used
- h. Anchorages to be used
- i. If a fall arrest system is to be used, confirmation that the distance below the work area is sufficient to prevent the person from striking the surface below
- j. A procedure to address the risks associated with the potential for swing as result of anchorage placement
- k. Procedures to be used to assemble, maintain, inspect, use and disassemble fall-protection system(s)
- l. Schedules for inspecting fall protection systems and the person responsible for the inspections.
- m. Written rescue procedures, where a rescue may be required
- n. Effect of weather conditions
- o. Name of designated competent person to supervise.
- p. Training and qualifications required, as determined by the employer
- q. Method for communicating the fall protection safe work plan to those involved

If there is more than one work area, individual plans can be developed for each area or an overall plan can be used **IF** it includes all the requirements necessary for each area.

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## Fall Protection Systems

There are numerous types of fall protection systems. It is important for employers to ensure the fall protection used is appropriate for the task and associated hazards and risks.

System	Requirements
Guardrails	<p>Must be installed in the following places when used as fall protection:</p> <ul style="list-style-type: none"> <li>• Around any uncovered opening</li> <li>• At the perimeter or open side of a work area</li> </ul> <p>If there is a risk of falling at a doorway or the opening of a building floor, roof or wall, there must be a guardrail and a warning sign indicating the presence of a doorway or other opening.</p>
Temporary Flooring	<p>Temporary flooring must be able to withstand 4 times the maximum load likely to be on it, and meet the following requirements:</p> <ul style="list-style-type: none"> <li>• Extend over the entire work area, unless there are openings necessary for work</li> <li>• Securely fastened to prevent lateral or vertical movement</li> </ul>
Personnel Safety Nets	<p>Any personnel safety net used must meet the ANSI Standard (A10.11). Employers must follow the manufacturer’s requirements when using personnel safety nets as fall protection. Despite any requirements set out in the standard, a personnel safety net must be erected and installed in accordance with the following:</p> <ul style="list-style-type: none"> <li>• Erected and installed under the supervision of a competent person.</li> <li>• Must be positioned as close as possible (but not more than 9 m) below the work area, and extend 2.4 m on all sides</li> <li>• Positioned and maintained so the maximum deflection of the personnel safety net does not allow any portion of the person to contact a surface</li> <li>• Must be free of debris, obstructions or intervening objects</li> </ul>
Travel Restraint System	<p>Any travel restraint system used must meet the requirements of the CSA Standard (CSA Z259.16).</p>
Fall Arrest System	<p>A fall arrest system must meet the requirements of the CSA Standard (CSA Z259.16). An employer must follow the manufacturer’s specifications when using fall arrest systems, including maintenance and inspection schedules.</p>
Work Positioning System	<p>Unless otherwise stated, a work positioning system must be used in combination with fall arrest system when:</p> <ul style="list-style-type: none"> <li>• The centre of gravity of the person extends beyond the edge from where the person could fall</li> <li>• The work surface creates a slipping or tripping hazard</li> </ul> <p>A work positioning system must never be used as a means of fall arrest.</p>

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## Equipment

Equipment	Requirements
Full-Body Harness	Must be worn as part of a fall arrest system. It must be used and certified in compliance with CSA Z259.1.
Body Belts	The design, markings and instructions of body belts must comply with CSA Z259.1. Body belts must not be used as a component of a fall arrest system.
Energy Absorbers and Lanyards	Must be used in compliance with CSA Z259.11. A lanyard used in a fall arrest system must be equipped with an energy absorber unless ALL of the following are met: <ul style="list-style-type: none"> <li>• Combined free-fall distance and the energy absorber declaration distance exceed the distance of the potential fall</li> <li>• The fall arrest system limits the free fall to less than 1.22 m and 8 kN arresting force</li> <li>• The fall arrest system does not permit the user to contact an unsafe surface</li> </ul>
Anchorage	Anchorage used as part of fall arrest must be able to withstand the following forces in any direction: <ul style="list-style-type: none"> <li>• 22 kN, for non-engineered anchorage</li> <li>• 2 times the maximum arresting force anticipated, for engineered anchorage</li> </ul>
Horizontal and Vertical Lifelines	A horizontal lifeline must comply with CSA Z259.16 and CSA Z259.2.1. A vertical lifeline must comply with CSA Z259.2.1
Self-Retracting Devices	The design, markings and instructions must comply with CSA Z259.2.2 and be: <ul style="list-style-type: none"> <li>• Anchored above the user's head</li> <li>• Used in a manner that:                             <ul style="list-style-type: none"> <li>- minimizes the hazards of swinging</li> <li>- limits the fall distance during the swing to 1.2 m</li> </ul> </li> </ul>
Connecting Components	Must comply with CSA Z259.12 Carabineers and snap hooks must be: <ul style="list-style-type: none"> <li>• Only capable of being opened by a minimum of 2 consecutive and deliberate manual actions</li> <li>• Self-closing and self-locking</li> </ul> Each component of a fall-protection system must be compatible with the following, as indicated in the manufacturer's specifications: <ul style="list-style-type: none"> <li>• Each component, and the safe function of any component, does not interfere with another</li> <li>• Work conditions and conditions of the physical environment under which the equipment is to be used</li> </ul>

**DISCLAIMER:**

*This fact sheet is a general overview for information purposes only. Farmers must reference legislation to ensure compliance.*

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