Metal Ladders — Know The Laws of Your Province



Metal ladders are frequently used across various industries due to their durability, strength, and resistance to environmental wear. However, they also pose specific safety risks, especially in environments where electrical hazards are present. Occupational Health and Safety (OHS) regulations establish clear standards for the safe selection, use, and maintenance of metal ladders to prevent injuries such as slips, falls, or electrocution. Employers must ensure that metal ladders are suitable for the task, regularly inspected for damage, and used in accordance with manufacturer specifications. While general ladder safety principles apply across Canada, specific OHS regulations vary by province and territory to address unique hazards, including those related to electrical safety and work environments. Compliance with these regulations helps reduce the risk of serious injuries, promotes responsible ladder use, and ensures a safe and compliant workplace.

FEDERAL

In federally regulated workplaces across Canada, the use of metal ladders is specifically addressed under the <u>Canada Occupational Health and Safety Regulations</u> — Part III Temporary Structures and Excavations, Section 3.11(5). This provision prohibits the use of metal or conductive ladders in circumstances where they may come into contact with live

electrical equipment, due to the serious risk of electrocution.

Portable Ladders

- (1) Commercially manufactured portable ladders **shall** meet the standards set out in CSA Standard CAN3-Z11-M81, *Portable Ladders*, the English version of which is dated September, 1981, as amended to March, 1983 and the French version of which is dated August, 1982, as amended to June, 1983.
- (2) Subject to subsection (3), every portable ladder **shall**, while being used,
 - (a) be placed on a firm footing; and
 - (b) be secured in such a manner that it cannot be dislodged accidentally from its position.
- (3) Where, because of the nature of the location or of the work being done, a portable ladder cannot be securely fastened in place, it **shall**, while being used, be sloped so that the base of the ladder is not less than one-quarter and not more than one-third of the length of the ladder from a point directly below the top of the ladder and at the same level as the base.
- (4) Every portable ladder that provides access from one level to another **shall** extend at least three rungs above the higher level.
- (5) Metal or wire-bound portable ladders **shall** not be used if there is a risk that they could come into contact with any live electrical circuit or equipment.
- (6) No employee **shall** work from any of the three top rungs of any single or extension portable ladder or from either of the two top steps of any portable step ladder. **Section 3.11 (1) to (6).**

Further details on the Canada Occupational Health and Safety Regulations can be found at <u>Justice.gc.ca</u>.

ALBERTA

In Alberta, the use of metal ladders is regulated under the Occupational Health and Safety Code — Part 8: Entrances, Walkways, Stairways and Ladders, Sections 124, 125, 135(c), 136. These sections outline key safety requirements for the construction, placement, and use of ladders, with special attention to the hazards posed by conductive materials.

Ladders - General

Restriction on Use

An employer must ensure that workers do not use a ladder to enter or leave an elevated or sublevel work area if the area has another safe and recognizable way to enter or leave it. Section 124.

Prohibition on Single Rail

A person must not make a ladder by fastening cleats across a single rail or post. Section 125.

Manufactured Portable Ladder

An **employer must** ensure that a portable ladder manufactured on or after July 1, 2009 meets the requirements of:

- (a) CSA Standard CAN3 Z11M81 (R2005), Portable Ladders,
- (b) ANSI Standard A14.12007, American National Standard for Ladders Wood Safety Requirements,
- (c) ANSI Standard A14.22007, American National Standard for Ladders Portable Metal Safety Requirements, or
- (d) ANSI Standard A14.52007, American National Standard for

Ladders — Portable Reinforced Plastic — Safety Requirements. Section 135.

Securing and Positioning

A worker **must** ensure that:

- (a) a portable ladder is secured against movement and placed on a base that is stable,
- (b) the base of an inclined portable ladder is no further from the base of the wall or structure than 1/4 of the distance between the base of the ladder and the place where the ladder contacts the wall, and
- (c) the side rails of a portable ladder extend at least 1 metre above a platform, landing or parapet if the ladder is used as a means of access to the platform, landing or parapet. Section 136.

Further details on the Occupational Health And Safety Code can be found at Alberta.ca

BRITISH COLUMBIA

In British Columbia, the use of metal ladders is regulated under the <u>Occupational Health and Safety Regulation</u> — Part 13: Ladders, Scaffolds and Temporary Work Platforms, Sections 13.2 to 13.4 and 13.6. These provisions outline the general requirements for ladder design, inspection, maintenance, and safe use, with specific attention to material-related hazards.

Standards

- (1) A ladder, window cleaner's belt or work platform must meet and be used in accordance with:
 - (a) the applicable CSA or ANSI standard in effect when the equipment or structure was manufactured, except as

otherwise determined by the Board,

- (b) another standard acceptable to the Board, or
- (c) if there is no applicable standard under paragraphs (a) or (b), the requirements of a professional engineer.
- (2) In designing and installing a work platform, appropriate safety factors and minimum rated loads **must** be used in the materials and method of installation, in accordance with:
 - (a) WCB Standard WPL 1, Design, Construction and Use of Wood Frame Scaffolds, 2004,
 - (b) WCB Standard WPL 2, Design, Construction and Use of Crane Supported Work Platforms, 2004,
 - (c) WCB Standard WPL 3, Safety Factor and Minimum Breaking Strength for Suspended Work Platforms and Associated Components, 2004, and
 - (d) WCB Standard LDR 1, Job Built Ladders, 2004. Section 13.2 (1)(2).

Manufactured Ladders

A manufactured portable ladder **must** be marked for the grade of material used to construct the ladder and the use for which the ladder is constructed. **Section 13.4.**

Position and Stability

- (1) A portable ladder must:
 - (a) be placed on a firm and level surface, and
 - (b) be of sufficient length to enable the safe performance of the work activity while being used.
- (2) A portable non-self-supporting ladder must,
 - (a) as shown in Figure 13-1, be positioned so that the

ladder is leaning against the vertical plane of support at an approximate angle of 75° when measured from the horizontal plane of support,

- (b) if the ladder provides access to or egress from an upper landing,
 - (i) project approximately 1 m (3 ft) above the upper landing, and
 - (ii) be sufficiently secured in place to ensure the stability of the ladder during access to or egress from the upper landing, and
- (c) if the ladder is not already secured in accordance with paragraph (b)(ii), be sufficiently secured in place to ensure the stability of the ladder during use if conditions exist that are likely to cause the ladder to be unstable. Section $13.5 \ (1)(2)$.

Use Restrictions

- (1) If work cannot be done from a ladder without hazard to a worker, a work platform must be provided.
- (2) A worker **must** not carry up or down a ladder, heavy or bulky objects or any other objects which may make ascent or descent unsafe. Section 13.6(1)(2).

Further details on the Occupational Health and Safety Regulation can be found at WorksafeBC.com

MANITOBA

In Manitoba, the use of metal ladders is regulated under the Workplace Safety and Health Act and Regulation — Part 13: Entrances, Exits, Stairways and Ladders, Sections 13.7 to 13.9, 13.11(iii), and 13.17. These sections establish safety requirements for the design, condition, and appropriate use of

ladders, with special consideration given to the hazards associated with conductive materials like metal.

Loads

Every ladder provided by an **employer** for use at a workplace **must** be designed and constructed and maintained to safely support any load that will be or is likely to be imposed on it. **Section 13.7.**

Worker to Inspect Ladder

An **employer must** ensure that a worker inspects a ladder for defects prior to each use. A ladder found to be broken or defective may not be used until it has been repaired and restored to its original design specifications. **Section 13.8**.

Metal Ladders Near Electrical Equipment

An **employer must** ensure that no worker uses a metal ladder or metal reinforced rails on a ladder near any exposed energized electrical circuits or equipment. **Section 13.9.**

Commercially Manufactured Portable Ladder

An **employer must** ensure that a commercially manufactured portable ladder used at a workplace:

- (a) complies with the applicable requirements of the following standards:
 - (i) CSA Z11-18, Portable Ladders,
 - (ii) ANSI-ASC A14.1-2017, American National Standard for Ladders — Wood — Safety Requirements,
 - (iii) ANSI-ASC A14.2-2017, American National Standard for Ladders Portable Metal Safety Requirements,
 - (iv) ANSI-ASC A14.5-2017, American National Standard for Ladders Portable Reinforced Plastic Safety

Requirements; and

(b) is used and maintained in accordance with the manufacturer's specifications and safe operating instructions. **Section 13.11**.

Stepladders

An employer must ensure that a stepladder:

- (a) is not more than 6 m high when set for use; and
- (b) has legs that are securely held in position by metal braces or an equivalent rigid support. **Section 13.17.**

Further details on the Workplace Safety and Health Act and Regulation can be found at <u>Gov.MB.ca</u>.

NEW BRUNSWICK

In New Brunswick, the use of **metal ladders** is regulated under the <u>General Regulation</u> – **Part XI Temporary Structures**, Sections 121 and 125.

Fixed Ladders

Employer Responsibilities

- (1) An employer shall ensure that a fixed ladder:
 - (a) is of adequate strength and length,
 - (b) is clean and free from grease,
 - (c) is maintained in a safe condition,
 - (d) is securely held in place at the top and bottom and at such intermediate points as are **required** to prevent sway,
 - (e) has a clearance of at least 165 mm maintained between the rungs and the structure to which the ladder is

affixed,

- (f) does not have any rungs that extend above a landing,
 - (f.1) is placed in such a way that an adequate landing surface that is clear of obstructions is available at the top and bottom of the ladder for access and egress,
- (g) has side rails or other secure hand holds that extend at least 1.07 m above the landing and are spaced not less than 685 mm apart, and
- (h) is removed from service when it has loose, broken or missing rungs, split side rails or other defects that may be hazardous to an employee.
- (2) An **employer shall** ensure that a fixed ladder that is more than 6 m in height is equipped with ladder cages.
- (3) Subsection (2) does not apply where an employee on the ladder uses a fall-arresting system.
- (4) Where a ladder cage is used on a fixed ladder, an employer
 shall ensure that:
 - (a) the cage is provided with metal hoops spaced to prevent an employee from falling away from the ladder and to contain an employee who may lean or fall against the cage,
 - (b) the cage extends not less than 685 mm and not more than 725 mm from the centre line of the rungs of the ladder,
 - (c) the cage is not less than 685 mm wide where it attaches to the ladder,
 - (d) the cage extends from a point 2.5 m from the base of the ladder to the top of the ladder,
 - (e) the inside of the cage is free of projections, and

(f) if the fixed ladder is more than 9 m in height, it is equipped with a rest platform at intervals of no more than 9 m. Section 121 (1) to (4).

Employee Responsibilities — Use of Portable Ladder

- (1) An employee who uses a portable ladder shall:
 - (a) inspect the ladder before use,
 - (b) report any unsafe condition of the ladder to the employer,
 - (c) face the ladder and use both hands when climbing or descending, and
 - (d) when standing on a ladder, stand in the centre between the side rails.
- (2) An employee who uses a portable ladder **shall** ensure that:
 - (a) the ladder is secured against movement,
 - (b) the side rails of the ladder extend at least 1 m above any platform or landing to which the ladder is a means of access, and
 - (c) if a stepladder, the legs are securely held in position by means of metal braces or an equivalent rigid support.
- (3) An employee who uses a portable ladder **shall** not:
 - (a) splice ladders together unless the spliced section is braced so that the spliced side rails are as strong as the original side rails,
 - (b) place a ladder in front of or against a door unless the door is blocked in the open position, locked or guarded,
 - (c) use a ladder as scaffold flooring or as support for scaffold flooring,

- (d) stand on the material shelf, the top or the top step of a portable step ladder, or
- (e) work from the top three rungs of a portable single or extension ladder.
- (4) Paragraphs (1)(d) and (3)(c) and (e) do not apply to a firefighter engaged in structural firefighting or rescue. Section 125 (1) to (4).

Further details on the General Regulation can be found at GNB.ca

NEWFOUNDLAND & LABRADOR

In Newfoundland and Labrador, the safe use of metal ladders is governed under the Occupational Health and Safety Regulations — Part XI: Scaffolds, Stages and Work Platforms, Sections 148(1)(c), 151, 152, and 154. These sections establish specific requirements for ladder construction, use, and safety precautions, with a particular focus on the hazards associated with conductive materials.

Portable Ladder Standards

- (1) Except as otherwise permitted by this Part, portable ladder design, construction and use **shall** meet the requirements of:
 - (a) CSA Standard CAN3-Z11 "Portable Ladders";
 - (b) ANSI Standard A14.1-1990 "Safety Requirements for Portable Wood Ladders":
 - (c) ANSI Standard A14.2-1990 "Safety Requirements for Portable Metal Ladders"; or
 - (d) other standard acceptable to the minister.
- (2) A manufactured portable ladder **shall** be:

- (a) marked for grade and use; and
- (b) used in accordance with the manufacturer's instructions. Section 148 (1)(2).

Inspection

Portable ladders **shall** be inspected before use, and ladders with loose, broken or missing rungs, split side rails or other hazardous defects **shall** be removed from service. **Section 151.**

Inclination and Support

Where a portable single or extension ladder is in use:

- (a) the ladder **shall** be placed so that the horizontal distance from the base to the vertical plane of support is approximately one-quarter of the ladder length between supports; and
- (b) the lower ends of the ladder side rails **shall** rest on a firm and level base and the upper support of the side rails **shall** be rested on a bearing surface strong enough to safely withstand the applied load. **Section 152**.

Restrictions on Use

- (1) Except as otherwise permitted by a manufacturer, a worker **shall** not work from either the top 2 rungs of a portable single or extension ladder or the top 2 steps of a stepladder.
- (2) A ladder **shall** not be used as a scaffold component or as a horizontal walkway, ramp or work platform support except where the ladder is part of a premanufactured or engineered system.
- (3) A worker **shall** maintain 3 points of contact when using a ladder.
- (4) A worker may only work from a portable ladder without

fall protection where:

- (a) the work is a light duty task of short duration at each location;
- (b) the worker's centre of gravity is maintained between the ladder side rails; and
- (c) the ladder is not positioned near an edge or floor opening that would significantly increase the potential fall distance. Section 154 (1) to (4).

Further details on the Occupational Health and Safety Regulations can be found at <u>Assembly.NL.ca</u>.

NOVA SCOTIA

In Nova Scotia, the use of metal ladders in excavation and trenching work is addressed under the <u>Occupational Safety General Regulations</u> — Part 14: Excavations and Trenches, Sections 150 to 152. These sections focus on safe access and egress for workers entering and exiting trenches and excavations, where ladders are often necessary.

- (1) An employer shall ensure that a portable ladder that is commercially manufactured is designed, manufactured and maintained in accordance with the latest version of CSA standard Z11, "Portable Ladders".
- (2) Despite subsection (1), an **employer shall** ensure that Grade 3 portable ladders, as described in any edition of CSA standard CSA Z11, "Portable Ladders", are not used at a workplace.
- (3) An **employer shall** ensure that a commercially manufactured portable ladder:
 - (a) where it is an extension ladder, maintains an adequate overlap between the sections of the ladder;

- (b) has locks engaged before the extension ladder is climbed; and
- (c) where there is a risk of contact with live electrical conductors, is non-conductive. **Section 150 (1) to (3)**.
- (1) An employer shall ensure that when a portable ladder is used:
 - (a) it is placed on a firm footing;
 - (b) it is secured in an adequate manner against movement as soon as reasonably practicable;
 - (c) as a means of access or exit, it:
 - (i) has side rails that extend at least 1 m above any platform or landing, and
 - (ii) has a clearance of at least 150 mm between it and the supporting structure, except in the area where the ladder is supported against the structure; and
 - (d) as a step ladder, it has legs securely held in position by means of metal braces or an equivalent rigid support.
- (2) An employer shall ensure that, when a portable ladder is used, it is not:
 - (a) spliced together with another ladder unless the spliced section is braced so that the spliced side rails are as strong as the original side rails;
 - (b) placed in front of or against a door that can be opened towards the ladder unless the door is blocked in the open position, locked or guarded;
 - (c) used as a scaffold, ramp, or as a support for such flooring;
 - (d) placed on a box, barrel, scaffold, or other unstable

base;

- (e) lashed to another ladder to increase its length; or
- (f) located in an elevator shaft or hoist way when such space is being used for hoisting. **Section 151 (1)(2).**

Where a portable ladder is used as a means of access or exit for a height greater than 6 m and for 7 or more persons, an **employer shall** provide 2 separate lines of ladders. **Section 152.**

Further details on the Occupational Safety General Regulations can be found at Novascotia.ca.

NORTHWEST TERRITORIES

In the Northwest Territories, the use of metal ladders is regulated under the <u>Occupational Health and Safety Regulations</u> – Part 16: Entrances, Exits and Ladders, Sections 258 to 261. These sections outline general ladder safety requirements while also addressing the specific risks associated with metal ladders, especially in environments with electrical hazards.

Ladders

- (1) An **employer** or supplier **shall** ensure that a ladder at a work site is designed, constructed and used to safely perform its function and is maintained.
- (2) An employer or supplier shall ensure that:
 - (a) a wooden ladder or stepladder is not painted with a substance other than a transparent coating; and
 - (b) a ladder is not made by fastening cleats across a single rail or post. **Section 258.**

Portable Ladders

- (1) In this section and section 260, "portable ladder" means a ladder that is not fixed in place and includes a stepladder.
- (2) An employer shall ensure that a portable ladder:
 - (a) is equipped with non-slip feet;
 - (b) is secured against accidental movement during use;
 - (c) that is metal or wire-bound is not used if the ladder or a worker handling or using the ladder could come into contact with an exposed energized conductor; and
 - (d) extends not less than 1 m above a platform, roof or other landing to which the ladder is used as a means of access.
- (3) An **employer shall** ensure that each worker who handles or uses a portable ladder is instructed in the requirements of this section.
- (4) An employer shall ensure that a stepladder:
 - (a) is not more than 6 m high when set for use;
 - (b) has legs that are securely held in position by means of metal braces or an equivalent rigid support; and
 - (c) when in use, has a front section slope at an angle of one horizontal to six vertical.
- (5) An employer shall ensure that:
 - (a) an extension ladder is equipped with locks that securely hold the sections of the ladder in the extended position;
 - (b) if a section of an extension ladder is extended, the section that is extended overlaps another section for not less than 1 m;

- (c) an extension ladder consisting of two sections does not exceed 14.6 m in length; and
- (d) an extension ladder consisting of more than two sections does not exceed 20 m in length.
- (6) An **employer shall** ensure that none of the following exceeds 9 m in length:
 - (a) a single portable ladder;
 - (b) any section of an extension ladder. Section 259 (1) to(6).

Use of Portable Ladders

- (1) If a worker uses a portable ladder other than a stepladder, an **employer shall** ensure that:
 - (a) the ladder is placed against the structure so that the slope of the ladder is one horizontal to four vertical;
 - (b) the worker does not extend any part of their body other than their arms beyond the side rails of the ladder;
 - (c) the worker maintains a three-point stance on the ladder; and
 - (d) the ladder is anchored to prevent movement
 - (i) at its base, and
 - (ii) at its upper points of support.
- (2) An **employer shall** ensure that a worker does not work from either of the top two rungs or steps of a portable ladder, unless the ladder is a stepladder that has a platform equipped with a suitable handrail. **Section 260 (1)(2)**.

For more information:

Fixed Ladders. Sections 261 (1) to (5).

Further details on the Occupational Health and Safety Regulations can be found at Canlii.org

NUNAVUT

In Nunavut, the use of metal ladders is regulated under the Occupational Health and Safety Regulations — Part 16: Entrances, Exits and Ladders, Sections 258 to 261. These sections outline general ladder safety requirements while also addressing the specific risks associated with metal ladders, especially in environments with electrical hazards.

Ladders

- (1) An **employer** or supplier **shall** ensure that a ladder at a work site is designed, constructed and used to safely perform its function and is maintained.
- (2) An employer or supplier shall ensure that:
 - (a) a wooden ladder or stepladder is not painted with a substance other than a transparent coating; and
 - (b) a ladder is not made by fastening cleats across a single rail or post. Section 258.

Portable Ladders

- (1) In this section and section 260, "portable ladder" means a ladder that is not fixed in place and includes a stepladder.
- (2) An employer shall ensure that a portable ladder:
 - (a) is equipped with non-slip feet;
 - (b) is secured against accidental movement during use;
 - (c) that is metal or wire-bound is not used if the ladder or a worker handling or using the ladder could come into contact with an exposed energized conductor; and

- (d) extends not less than 1 m above a platform, roof or other landing to which the ladder is used as a means of access.
- (3) An **employer shall** ensure that each worker who handles or uses a portable ladder is instructed in the requirements of this section.
- (4) An employer shall ensure that a stepladder:
 - (a) is not more than 6 m high when set for use;
 - (b) has legs that are securely held in position by means of metal braces or an equivalent rigid support; and
 - (c) when in use, has a front section slope at an angle of one horizontal to six vertical.

(5) An employer shall ensure that:

- (a) an extension ladder is equipped with locks that securely hold the sections of the ladder in the extended position;
- (b) if a section of an extension ladder is extended, the section that is extended overlaps another section for not less than 1 m;
- (c) an extension ladder consisting of two sections does not exceed 14.6 m in length; and
- (d) an extension ladder consisting of more than two sections does not exceed 20 m in length.
- (6) An **employer shall** ensure that none of the following exceeds 9 m in length:
 - (a) a single portable ladder;
 - (b) any section of an extension ladder. Section 259 (1) to(6).

Use of Portable Ladders

- (1) If a worker uses a portable ladder other than a stepladder, an **employer shall** ensure that:
 - (a) the ladder is placed against the structure so that the slope of the ladder is one horizontal to four vertical;
 - (b) the worker does not extend any part of their body other than their arms beyond the side rails of the ladder;
 - (c) the worker maintains a three-point stance on the ladder; and
 - (d) the ladder is anchored to prevent movement
 - (i) at its base, and
 - (ii) at its upper points of support.
- (2) An **employer shall** ensure that a worker does not work from either of the top two rungs or steps of a portable ladder, unless the ladder is a stepladder that has a platform equipped with a suitable handrail. **Section 260 (1)(2)**.

For more information:

Fixed Ladders. Sections 261 (1) to (5).

Further details on the Occupational Health and Safety Regulations can be found at Canlingov

ONTARIO

In Ontario, the use of metal ladders on construction sites is governed under <u>O. Reg. 213/91: Construction Projects</u> — Part II: General Construction, Sections 79 and 80. These sections provide foundational requirements for the safe use of all ladders, with special consideration for the hazards associated with conductive materials like metal.

Ladders

A ladder **shall** be designed, constructed and maintained so as not to endanger a worker and **shall** be capable of withstanding all loads to which it may be subjected. **Section 79.**

- (1) A portable ladder at a project **shall** be manufactured and **shall** meet the design, performance, test and marking requirements of a Grade 1, Grade 1A or Grade 1AA ladder in the CSA Standard Z11-12, Portable Ladders.
- (2) Despite subsection (1), a portable single ladder that is custom-built for use at a project may be used at the project if the ladder has,
 - (a) rungs spaced at 300 millimetres on centres;
 - (b) side rails at least 300 millimetres apart; and
 - (c) a maximum length, measured along its side rail, of not more than nine metres.
- (3) If a portable single ladder under subsection (2) is made of wood, the ladder **shall** also,
 - (a) be made of wood that is straight-grained and free of loose knots, sharp edges, splinters and shakes; and
 - (b) not be painted or coated with an opaque material that obscures the wood grain or interferes with inspections of the ladder.
- (4) If the rungs of a ladder under subsection (3) are of the cleat type, the ladder **shall** also,
 - (a) have side rails that are not less than 400 millimetres but not more than 610 millimetres apart;
 - (b) have side rails that measure not less than,
 - (i) 38 millimetres by 89 millimetres if the ladder is

- 5.8 metres long or less, or
- (ii) 38 millimetres by 140 millimetres if the ladder is more than 5.8 metres long;
- (c) have rungs that measure not less than,
 - (i) 19 millimetres by 64 millimetres if the side rails are 400 millimetres apart, or
 - (ii) 19 millimetres by 89 millimetres if the side rails are more than 400 millimetres apart; and
- (d) have rungs braced by filler blocks that are at least 19 millimetres thick and located between the rungs.
- (5) If a ladder under subsection (3) is a double-width wooden ladder, the ladder **shall** also,
 - (a) have three evenly-spaced rails that measure at least 38 millimetres by 140 millimetres;
 - (b) have rungs that,
 - (i) measure at least 38 millimetres by 89 millimetres,
 - (ii) extend the full width of the ladder, and
 - (iii) are braced by filler blocks that are at least 19 millimetres thick; and
 - (c) be at least 1.5 metres wide but not more than 2 metres wide. Section 80 (1) to (5).

Further details on the Reg. 213/91: Construction Projects can be found at Ontario.ca

PRINCE EDWARD ISLAND

In Prince Edward Island, the use of **metal ladders** is governed by the **Occupational Health and Safety Act General Regulations**

- Part 23: Ladders, Sections 23.1 to 23.3, 23.5, and 23.6. These sections outline general ladder safety requirements while specifically addressing the hazards of using conductive materials in environments where electrical contact is possible.

PART 23 - LADDERS

Use of Ladders

(1) The **employer shall** provide a ladder where workers **must** work in an elevated or sub-level area not provided with other safe and recognizable means of access or egress.

Defective Ladder

(2) The **employer shall** ensure that a ladder is removed from service when it has loose, broken or missing rungs, split side rails or other hazardous defects.

General Obligations of Employer

- (3) The employer shall ensure that:
 - (a) all portable ladders **shall** be equipped with non-slip bases;
 - (b) portable metal or wire truss ladders **shall** not be used in the vicinity of electrical circuits or apparatus when the hazard of electrical exposure is present;
 - (c) benches, boxes, tables or other makeshift substitutes shall not be used as ladders. Section 23.1 (1) to (3).

Specifications

The user of a ladder shall ensure that:

(a) the base of an inclined portable ladder **shall** not be more than one-fourth the length of the ladder out from the vertical line of contact at the top unless the top is

securely fastened;

- (b) side rails of ladders when in use **shall** have secure footing and the top rest **shall** be rigid and have ample strength to support the applied load;
- (c) where possible the top of the ladder **shall** be securely fastened to prevent movement;
- (d) the side rails of a portable ladder **shall** extend at least 914 mm (3 ft.) above a landing;
- (e) side rails have a uniform clear width between them not less than 305 mm (12 in.) for ladders 3 048 mm (10 ft.) in length and under, and increasing 6 mm (in.) in width for each additional 300 mm (1 ft.) in length. (EC180/87) Section 23.2.

General Obligations

The User of a Ladder Shall

- (a) inspect a ladder before use;
- (b) report any unsafe condition of the ladder to the employer;
- (c) not work from the top three rungs of a single or extension ladder;
- (d) not lash or splice ladders together;
- (e) not place a ladder in front of or against a door unless the door is blocked in the open position, locked or guarded;
- (f) use both hands and face the ladder when ascending or descending;
- (g) when standing on a ladder, keep the centre of his body between the side rails. **Section 23.3**.

Step Ladders

- (1) The **employer shall** ensure that:
 - (a) step ladders **shall** not be over 6 096 (20 ft.) in length;
 - (b) step ladders **shall** be constructed so that when in the open position of the front section **shall** have a minimum slope of 89 mm (3 1/2 in.) and the back section a minimum slope of 50 mm (2 in.) in each 305 mm (12 in.) length of side rail;
 - (c) when in position all treads of step ladders shall be level;
 - (d) the minimum inside width between side rails at the top step of step ladders **shall** not be less than 305 mm (12 in.) and the side rails **shall** have an additional spread of 25 (1 in.) for each 305 mm (12 in.) of length of step ladder;
 - (e) step ladders **shall** be equipped with metal braces to hold legs securely in position;
 - (f) back legs of all step ladders **shall** be at least 44 mm (1 3/4 in.) wide and of the same thickness as the side rails;
 - (g) cross rails and braces of step ladders **shall** be not less than 13 mm (1/2 in.) thick and **shall** be securely fastened;
 - (h) step ladders 3 048 mm (10 ft.) and less in height **shall** have a bottom cross rail and diagonal braces;
 - (i) step ladders over 3 048 mm (10 ft.) in height **shall** have bottom and intermediate cross rails and two sets of diagonal braces;
 - (j) cross rails shall not be less than 100 mm (4 in.) wide

and diagonal braces **shall** not be less than 50 mm (2 in.) wide;

- (k) step ladders **shall** be reinforced at each step by a metal tie rod or a metal brace;
- (l) metal parts of step ladders shall be of malleable iron, wrought iron or steel;
- (m) the material shelf and the top step on a step ladder are clearly marked to indicate that they are not steps. Section 23.5(1).

For more information:

Fixed or permanent ladders. Sections 23.6.

Further details on the Occupational Health and Safety Act General Regulations can be found at PrinceEdwardIsland.ca.

QUÉBEC

In Québec, the use of **metal ladders** on construction sites is governed by the <u>Safety Code for the Construction Industry</u>, specifically <u>Sections 3.5.1 to 3.5.3 and 3.5.6 to 3.5.9</u>. These provisions establish the fundamental safety requirements for the construction, condition, and proper use of ladders, including metal ladders.

Ladders and Stepladders

When there are no stairways, ramps, passages, scaffolding, elevators or mast-climbing transport platforms, ladders **shall** be used to gain access to a work area.

A ladder shall:

(a) be designed, built, maintained and used so as not to endanger the safety of workers;

- (b) always be used in such a way that the loads applied do not cause any part of the ladder to be stressed beyond allowed stresses; and
- (c) be suitable for the type of work to be performed, with regard to its type as well as to its length and accessories.

Commercial ladders: The employer shall ensure that any commercially manufactured ladder that he uses complies with CAN3-Z11-M81 Portable Ladders, except to the extent that the standard is modified by this subdivision.

Ladder utilization: Any ladder shall:

- (a) rest on a firm footing and the top **shall** be propped on its 2-side rails;
- (b) be firmly held in place by one or more persons if it is not permanently fastened and if its length is equal to or superior to 9 m;
- (c) be protected against any jolt or sliding which might
 upset it;
- (d) when not permanently fastened, be so inclined, in compliance with Schedule 0.1, that the horizontal distance between the base of the ladder and the vertical plane of its top support is approximately between 1/4 and 1/3 of the length of the ladder between its supports;
- (e) if used as a means of access:
 - be securely fastened in place;
 - ii. extend at least 900 mm above the upper landing; and
 - iii. have a minimum clear space of 150 mm below any rung;

- (f) be so placed that there is adequate free space at the bottom of the ladder;
- (g) (paragraph revoked);
- (h) not be lashed to another ladder end to end;
- (i) if installed in a continuous vertical position, except ladders permanently installed with hoop protection:
 - i. have rest platforms with handrails, at intervals not greater than 6 m; and
 - ii. be off-centre at each platform to ensure protection
 for the upper part;
- (j) not be used near an exposed electrical circuit when it is made of metal or is metal-reinforced;
- (k) be of a length sufficient to allow a person to work without having to use the top 2 rungs; and
- (l) be lifted and lowered by the user in such a way that he faces it. Section 3.5.1 to 3.5.6.

Notwithstanding section 3.6.1, a ladder may be used in an elevator shaft or hoist way to temporarily serve one of the 2 means of egrees provided for in that section, for a maximum height of 2 storeys.

In addition, the ladder may be used upon the following conditions:

- (a) the elevator or the hoist **shall** not be in the process of being installed;
- (b) the opening of the shaft at the level of the first landing **shall** be completely closed;
- (c) the opening of the second landing shall allow only the free passage of persons;

- (d) the ladder **shall** cover the opening of the second landing so as to prevent persons from falling;
- (e) the ladder **shall** be built as work progresses, but without adversely affecting construction work. **Section 3.5.6.1.**

For more information:

Stepladder. Sections 3.5.7 to 3.5.9.

Further details on the Safety Code for the Construction Industry can be found at Legisguebec.gouv.gc.ca.

SASKATCHEWAN

In Saskatchewan, the use of metal ladders is regulated under the <u>Occupational Health and Safety Regulations</u> — Part 16: Entrances, Exits and Ladders, Sections 16-5 to 16-7. These sections outline the basic safety standards for all ladders, including those made of metal, with particular attention to their safe use and limitations in workplace environments.

Ladders

- (1) An **employer**, contractor or supplier **shall** ensure that every ladder is designed, constructed, used and maintained to perform its function safely.
- (2) An employer, contractor or supplier shall ensure that:
 - (a) no wooden ladder or stepladder is painted with any substance other than a transparent coating; and
 - (b) no ladder is made by fastening cleats across a single rail or post. Section 165 (1)(2).

Portable Ladders

(1) In this section and section 16-7, "portable ladder" means

any ladder that is not fixed in place, and includes a stepladder.

- (2) An employer or contractor shall ensure that:
 - (a) a portable ladder is equipped with non-slip feet;
 - (b) a portable ladder is secured against accidental movement during use;
 - (c) a metal or wire-bound portable ladder is not used where the ladder or a worker handling or using the ladder may come into contact with an exposed energized electrical conductor; and
 - (d) a portable ladder extends at least 1 metre above any platform, roof or other landing to which the ladder is used as a means of access.
- (3) An **employer** or contractor **shall** ensure that each worker who handles or uses a portable ladder is instructed in the requirements of this section.
- (4) An **employer** or contractor **shall** ensure that a stepladder:
 - (a) is not more than 6 metres high when set for use;
 - (b) has legs that are securely held in position by means of metal braces or an equivalent rigid support; and
 - (c) when in use, has a front section slope at an angle of 1 horizontal to 6 vertical.
- (5) An employer or contractor shall ensure that:
 - (a) an extension ladder is equipped with locks that securely hold the sections of the ladder in the extended position;
 - (b) if a section of an extension ladder is extended, the

section that is extended overlaps another section for at least 1 metre;

- (c) an extension ladder consisting of 2 sections does not exceed 14.6 metres in length; and
- (d) an extension ladder consisting of more than 2 sections does not exceed 20 metres in length.
- (6) An **employer** or contractor **shall** ensure that no single portable ladder and no section of an extension ladder exceeds 9 metres in length. **Section 166 (1) to (6)**
- (1) If a worker uses a portable ladder other than a stepladder, an **employer** or contractor **shall** ensure that:
 - (a) the ladder is placed against the structure so that the slope of the ladder is 1 horizontal to 4 vertical;
 - (b) the worker does not extend any part of the worker's body except for the worker's arms beyond the side rails of the ladder; and
 - (c) the worker maintains a three-point stance on the ladder at all times.
- (2) An **employer** or contractor **shall** ensure that a worker does not work from either of the top 2 rungs or steps of a portable ladder, unless the ladder is a stepladder that has a platform equipped with a suitable handrail. **Section 167 (1)(2).**

Further details on the Occupational Health and Safety Regulations can be found at Saskatchewan.ca.

YUKON

In Yukon, the use of metal ladders on construction sites is regulated under the <u>Occupational Health and Safety Regulations</u> – Part 10: Construction and Building Safety, Sections 10.21, 10.25, and 10.29. These provisions establish safety

requirements for ladder use in construction, with specific implications for the use of conductive materials such as metal.

LADDERS - GENERAL

General Requirements

Any ladder shall be:

- (a) of adequate strength and length for the work being done,
- (b) clean and free from grease, oil or other slippery substance,
- (c) maintained in safe condition, and
- (d) removed from service or repaired immediately when it has loose, broken or missing rungs, split side rails or other defects that may be hazardous to a worker. **Section 10.21.**

LADDERS - PORTABLE

Standards

- (1) The design, construction and use of portable ladders **shall** meet the requirements of:
 - (a) CSA Standard Z11-M81, Portable Ladders
 - (b) ANSI Standard A14.1-2000, Safety Requirements for Ladders Portable Wood,
 - (c) ANSI Standard A14.2-2000, Safety Requirements for Portable Metal Ladders, or
 - (d) other similar standards acceptable to the board.

Grade Markings

(2) Manufactured portable ladders **shall** be marked for grade and use and used in accordance with the manufacturer's instructions. **Section 10.25 (1)(2).**

Worker's Responsibilities

The worker who uses a portable ladder shall ensure that:

(a) the ladder is appropriate for the task being performed,

Inspection

(b) the ladder is inspected before use,

Unsafe

(c) any unsafe condition of the ladder is reported to the employer,

Climbing

- (d) the ladder is faced and both hands used when climbing or descending,
- (e) when standing on a ladder, he or she stands in the centre between the side rails,

Beyond Landing

(f) the side rails of the ladder extend at least 1 m (3 ft.) above any platform or landing to which the ladder is a means of access,

Secured

(g) where extended to a height of more than 3 m (10 ft.), it is effectively secured or held in place by another worker,

Stepladder

- (h) if it is a stepladder, the legs are securely held in position by means of metal braces or an equivalent rigid support,
- (i) a stepladder is used only when the front section has a maximum pitch of one in six in the open position,
- (j) when used as a self supporting unit, the legs of a stepladder are fully spread and the spreader is locked,
- (k) he or she does not work or stand on the top
 - i. two rungs of a stepladder, except in cases where the stepladder is equipped with a railed platform, and
 - three rungs of a portable single or extension ladder,

Splicing

(l) ladders are not spliced together unless the spliced section is braced so that the spliced side rails are as strong as the original side rails,

Use

- (m) a ladder is not placed in front of or against a door unless the door is blocked in the open position, locked or guarded,
- (n) a ladder is not used as scaffold flooring or as support for scaffold flooring,

Near Electricity

(o) ladders made of metal or electrically conductive material are not used when working within 3 m (10 ft.) of energized electrical lines, and

Angle

(p) if the ladder is not securely fastened, it is placed so that the base of the ladder is not less than one-quarter and not more than one-third of the length of the ladder from a point directly below the top of the ladder and at the same level as the base of the ladder. Section 10.29 (a) to (p).

Further details on the Occupational Health and Safety Regulations can be found at Wcb.yk.ca.