

NORTHWEST TERRITORIES & NUNAVUT

CODES OF PRACTICE

In accordance with the *Northwest Territories and Nunavut Safety Acts* and *Occupational Health and Safety Regulations*

PERSONAL PROTECTIVE EQUIPMENT FOOT PROTECTION



FOREWORD

The Workers' Safety and Compensation Commission (WSCC) produced this industry Code of Practice in accordance with subsections 18(3) and 18(4) of the Northwest Territories and Nunavut *Safety Acts*.

The WSCC gratefully acknowledges the Canadian Centre for Occupational Health and Safety (CCOHS) for information used in the Personal Protective Equipment Foot Protection Code of Practice.

The Code of Practice applies to all workplaces covered by the Northwest Territories and Nunavut *Safety Acts* and *Occupational Health and Safety Regulations*.

The *PPE Foot Protection Code* relates to section 4 and 5 of the *Safety Act* and Sections 13, 16, 23, 26, 74, 88, 89, 90 and 100 of the *Occupational Health and Safety Regulations*. This code is in effect as published in the in the Northwest Territories *Gazette* and Nunavut *Gazette*, in accordance with the *Safety Acts and Occupational Health and Safety (OHS) Regulations*.

IN EFFECT DATES:

Northwest Territories: June 1, 2015

Nunavut: May 31, 2016

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Chief Safety Officer, WSCC

Disclaimer

This publication refers to obligations under the workers' compensation and occupational health and safety legislation as administered by the Workers' Safety and Compensation Commission.

To ensure compliance with legal obligations always refer to the most recent legislation. This publication may refer to legislation that has been amended or repealed.

Check for information on the latest legislation at wsc.nt.ca or wsc.nu.ca, or contact WSCC at 1-800-661-0792.

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1 INTRODUCTION

This Foot Protection code of practice provides basic guidelines to ensure worker safety in the workplace through the use of personal protective equipment (PPE). If workers are at risk of foot injury in the workplace, they must wear the appropriate footwear to protect from hazards.

PPE is equipment worn by workers to minimize exposure to specific occupational hazards. The foot is the most valuable part of the body subjected to injury in industry. There are many instances where the foot is at risk from heavy falling and rolling objects, cuts or punctures.

PPE cannot eliminate a hazard, but can reduce the risk of injury. Steel toe boots and shoes protect feet, help prevent injuries, and reduce the severity of injuries. This code provides clarity on regulatory requirements and general information.

Definition

Personal Protective Equipment (PPE) – any clothing, device, or other article for workers to use to prevent injury or to facilitate rescue.



Hearing Protection



Protective Footwear



Hand Protection



High-Visibility Clothing



Safety Helmet & Eye Wear



Safety Harness

PPE USAGE IS SPECIFIC TO EVERY WORK SITE AND JOB HAZARD ASSESSMENT

For more information see the PPE Codes of Practice and the [Hazard Assessment Code of Practice](https://www.wsc.nt.ca) at [wsc.nt.ca](https://www.wsc.nt.ca)

2 REGULATORY REQUIREMENTS

By law, workers must use personal protective equipment in the workplace when it is required. Employer responsibilities include providing instruction on what PPE is needed, maintenance and cleaning of the equipment, and educating and training workers on proper use of PPE.

Occupational Health and Safety Regulations **Northwest Territories and Nunavut**

Part 3

General Duties of Workers

- 13.** A worker shall, in respect of a work site,
- (a) use safeguards, safety equipment and personal protective equipment required by these regulations; and
 - (b) follow safe work practices and procedures required by or developed under these regulations.

Supervision of Work

- 16.** (1) An employer shall ensure that, at a work site,
- (b) supervisors have sufficient knowledge of the following:
 - (iii) the need for, and safe use of, personal protective equipment,

Footwear

- 100.** (1) An employer shall require that
- (a) a worker uses footwear suitable to minimize any risks associated with the work site and the worker's work; and
 - (b) a worker who could be at risk from a heavy or falling object or who could tread on a sharp object uses approved protective footwear.
- (2) An employer shall provide to a worker
- (a) outer foot guards if there is substantial risk of a crushing injury to the foot of the worker; and
 - (b) approved protective footwear if the feet of the worker could be endangered by hot, corrosive or toxic substances.

Thermal Conditions

74. (4) If a worker is required or permitted to work in thermal conditions that are different from those associated with the worker's normal duties, an employer shall provide and require the worker to use suitable clothing or other personal protective equipment necessary to protect the health and safety of the worker.

3 PPE AND HAZARD CONTROL

Decisions about PPE form part of the hazard assessment process, the standard work site approach to dealing with potential hazards. There are five basic ways to control hazards. These controls form a hierarchy. Elimination is always the first control to consider. After that, proceed down the hierarchy until the control of last resort, PPE.

THE FIVE BASIC WAYS TO CONTROL HAZARDS AND EXAMPLES:

1. **Elimination** (remove the hazard from the work site)
2. **Substitution** (use a less harmful chemical)
3. **Engineering** (isolate equipment/set guards)
4. **Administration** (provide training/maintenance)
5. **Personal Protective Equipment** (provide foot protection)

The use of PPE does not prevent accidents or eliminate hazards. Make every effort to control all hazards at the source. Training is also important. PPE cannot achieve its full-protection potential without worker knowledge and cooperation.

Several controls may have to be put in place.

- Proper guarding of machines such as chain saws or rotary mowers can avoid cuts or severed feet or toes.
- Effective housekeeping. For example, loose nails, other sharp objects, and littered walkways are hazards for foot injury.
- Posting safety signs in conspicuous places where safety footwear is required when there is a potential hazard from falling objects, sharp objects, etc.

PPE design criteria cannot cover all eventualities.

- Take uncertainties into account when evaluating potential hazards.

For more information see the WSCC [Hazard Assessment Code of Practice](#)

4 CSA STANDARD

The Canadian Standards Association (CSA) is an accredited standards development organization and certification body.

The standards they develop define requirements for reducing the risk of workplace injuries. Canadian Safety Standards can be found at <https://store.csagroup.org>

CSA Group test and certify products to Canadian standards and issue the CSA Mark for qualified products.



Identifying Mark of Approved Equipment

23. (1) This section applies in respect of equipment and personal protective equipment that is required by these regulations to be approved by an agency.

[NWT & NU Occupational Health and Safety Regulations, Section 23(1)]

CAN/CSA-Z195-14 (R2019)

| | |
|----------------|---|
| CAN/CSA | Stands for the Canadian Standards Association. |
| Z195 | The coding refers to the standard on Protective Footwear . |
| 2014 | The last two digits indicate the year issued. (Updated in 2019) |

CAN/CSA- CAN/CSA-Z195.1-16

| | |
|----------------|--|
| CAN/CSA | Stands for the Canadian Standards Association. |
| Z195.1 | The coding refers to the Guideline for Selection, Use and Care of Protective Footwear . |
| 2016 | The last two digits indicate the year issued. |

MAKE SURE YOU USE THE MOST UP-TO-DATE STANDARD

5 COMMON WORKPLACE FOOT INJURIES

Examples of workplace foot injuries:

| Injuries | Common Causes |
|--|---|
| Crushed or broken feet, amputations of toes or feet | Feet trapped between objects or caught in a crack, falls of heavy objects, moving vehicles (lift trucks, bulldozers, etc.), conveyor belts (feet drawn between belt and roller) |
| Punctures of the sole of the foot | Loose nails, sharp metal or glass objects |
| Cuts or severed feet or toes, lacerations | Chain saws, rotary mowers, unguarded machinery |
| Burns | Molten metal splashes, chemical splashes, contact with fire, flammable or explosive atmospheres |
| Electric shocks | Static electricity, contact with sources of electricity |
| Sprained or twisted ankles, fractured or broken bones because of slips, trips or falls | Slippery floors, littered walkways, incorrect footwear, poor lighting |

Additional hazards for foot injury exist in outdoor jobs such as logging, hydro linework or fishing which involve freezing temperatures, or wetness in low temperature, including injuries such as frostbite and trench foot.

Source: *Foot Comfort and Safety at Work*, https://www.ccohs.ca/oshanswers/prevention/ppe/foot_com.html, OSH Answers Canadian Centre for Occupational Health and Safety (CCOHS), October 29, 2020. Reproduced with the permission of CCOHS, 2021

6 COLD EXPOSURE HAZARDS

Cold is a physical hazard in many work sites in the Northwest Territories and Nunavut. Extreme cold and environmental factors related to working in northern locations are potentially hazardous to health and safety. It is necessary to identify the hazards, assess the potential risk to workers, and develop and implement controls to mitigate the hazards inherent with working in cold conditions.

Select footwear based on the job and task at hand, and weather and wind chill.

- See the [WSCC Thermal Conditions Code of Practice](#)

Protective Footwear for Cold Conditions

Selection should be made to suit the specific working conditions. Working outdoors in cold weather poses a special requirement on selecting the proper footwear. "Normal" protective footwear is not designed for cold weather.

Use safety footwear that protects against the cold and dampness. Felt-lined, rubber bottomed, leather topped boots with removable felt insoles are best suited for heavy work in cold since leather is porous and allows for perspiration to evaporate.

However, if work involves standing in water or slush, waterproof boots need to be worn. Waterproof boots protect the feet from getting wet, but since they prevent perspiration from escaping socks may become damp quicker and increase the risk for frostbite.

Footwear should be insulated and fit comfortably when socks are layered. Tight fitting footwear restricts blood flow.

- Arctic rated winter boots are advisable.
- Boots made of ballistic nylon offer the best protection against cuts.
- Rubber soles are suited to wet weather and snow.
- Hobnail boots, grip soles, or cork soles for rough terrain.

7 GUIDE TO SELECTION







Footwear must be chosen based on the hazards that are present. Assess the workplace and work activities for:




- Materials handled or used by the worker.
- Risk of objects falling onto or striking the feet.
- Any material or equipment that might roll over the feet.
- Any sharp or pointed objects that might cut the top of the feet.
- Objects that may penetrate the bottom or side of the foot.
- Possible exposure to corrosive or irritating substances.
- Possible explosive atmospheres including the risk of static electrical discharges.
- Risk of damage to sensitive electronic components or equipment due to the discharge of static electricity.
- Risk of coming into contact with energized conductors of low to moderate voltage (e.g., 220 volts or less).
- Type of walking surface and environmental conditions workers may be exposed to (e.g., loose ground cover, smooth surfaces, temperature, wet/oily, chemicals, etc.).

Also, evaluate the following risks:

- Ankle injury from uneven walking surfaces or rough terrain.
- Foot injury due to exposure to extreme hot or cold.
- Slips and falls on slippery walking surfaces.
- Exposure to water or other liquids that may penetrate the footwear causing damage to the foot and the footwear.
- Exposure to rotating or abrasive machinery (e.g., chainsaws or grinders).

Source: *Safety Footwear*, <https://www.ccohs.ca/oshanswers/prevention/ppe/footwear.html>, *OSH Answers*, Canadian Centre for Occupational Health and Safety (CCOHS), October 22, 2020. Reproduced with the permission of CCOHS, 2021

| Selection of Safety Footwear | | |
|---|---|--|
| Marking | Criteria | Intended Application |
|  | Green triangle indicates sole puncture protection with a Grade 1 protective toecap. | For heavy industrial work environments, especially that of construction where sharp objects (such as nails) are present. |
|  | Yellow triangle indicates sole puncture protection with a Grade 2 protective toecap. | For light industrial work environments requiring puncture protection as well as toe protection. |
|  | Blue rectangle indicates a Grade 1 protective toecap with no puncture-resistant sole. | For industrial work environments not requiring puncture protection. |
|  | Grey rectangle indicates a Grade 2 protective toecap with no puncture-resistant sole. | For industrial and non-industrial work environments not requiring puncture protection. |
|  | White rectangle with orange Greek letter omega indicates electric-shock protective footwear. | For industrial work environments where accidental contact with live electrical conductors can occur. Warning: Electrical shock resistance deteriorates with wear and in a wet environment. |
|  | Yellow rectangle with black SD letters indicates static-dissipative footwear. | For industrial work environments where a static discharge can create a hazard for workers or equipment. Warning: This footwear should not be used where contact with live electrical conductors can occur. |
|  | Yellow rectangle indicates sole puncture protection with a Grade 2 protective toecap. (super-static dissipative footwear) | For industrial work environments where a static discharge can create a hazard for workers or equipment. Warning: This footwear should not be used where contact with live electrical conductors can occur. |

| Marking | Criteria | Intended Application |
|---|--|---|
|  | Red rectangle with white C letter indicates electrically conductive | For industrial work environments where low-power electrical changes can create a hazard for workers or equipment. Warning: This footwear should not be used where contact with live electrical conductors can occur. |
|  | Dark grey rectangle with M letter indicates metatarsal protection. Note: Toe protection is required for all metatarsal protective footwear | For industrial work environments where heavy objects can hurt the metatarsal region of the foot. |
|  | White label with green fir tree symbol footwear provides protection when using chainsaws. | For forestry workers and others who work with or around hand-held chainsaws and other cutting tools. |

Note: Footwear will also be marked to indicate the level of slip resistance. These markings may be on the packaging, the footwear, or on a product sheet.

Source: *Safety Footwear*, <https://www.ccohs.ca/oshanswers/prevention/ppe/footwear.html>, OSH Answers Canadian Centre for Occupational Health and Safety (CCOHS), October 22, 2020. Reproduced with the permission of CCOHS, 2021

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Code of Practice

PERSONAL PROTECTIVE EQUIPMENT

FOOT PROTECTION

Workers' Safety & Compensation Commission
Northwest Territories and Nunavut

WSCC Emergency Reporting
24-hour Incident Reporting Line

1 800 661-0792

WSCC



If you would like this Code of Practice in another language, please contact us.