Canada

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# Departmental Occupational Health and Safety Program

# Protective Footwear Guide

Version 2.0

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## 1. PURPOSE

Employment and Social Development Canada (ESDC) is responsible for ensuring that the health and safety at work of every person employed by the employer is protected.

This Guide outlines the roles and responsibilities relating to protective footwear for employees of ESDC.

#### 2. SCOPE

This guide applies to all work locations and all employees within the Department, including Service Canada, the Labour Program and all other service offerings managed within ESDC, as well as every person granted access to the workplace. This guide should be read in consultation with the Departmental Hazard Prevention Program (HPP), which has identified hazards that will require employees to use protective footwear while performing their regular duties.

#### 3. AUTHORITIES AND REFERENCES

- <u>Canada Labour Code, Part II</u>
- Canada Occupational Health and Safety Regulations
- National Joint Council Occupational Health and Safety Directive, Part XIII – Section 13.9
- CSA Standard Z195-14 Protective Footwear (2014)
- CSA Standard Z195-02: Guideline on Selection, Care and Use of Protective Equipment. (2002)
- Canadian Centre for Occupational Health and Safety Safety Footwear

# 4. **RESPONSIBILITIES**

#### 4.1. Employer Representative

(<u>Employer</u>...encompasses all senior management officials, directors, managers, team leaders, supervisors, management leads, and site leads)

The employer representative is responsible for:

- a) ensuring the implementation of the Protective Footwear Guide as required;
- b) identifying employees who require protective footwear as a result of their exposure to:
  - i. hazards already assessed under a <u>Hazard Profile Group of the ESDC Hazard</u> Prevention Program; or,
  - ii. other hazards assessed by the employer in conjunction with the Workplace Health and Safety Committee/Representative and the Regional OHS Advisor;

- c) ensuring the selection and provision of appropriate protective footwear for employees identified as per b), in accordance with CSA Standard Z195-14 See Annex A: SELECTING AND MAINTAINING PROTECTIVE FOOTWEAR;
- d) ensure that every person granted access to the work place, who is exposed to a hazard requiring protective footwear, uses footwear that is in accordance with CSA Standard Z195-14 – See <u>Annex A: SELECTING AND MAINTAINING PROTECTIVE</u> FOOTWEAR;

# 4.2. Employee

The employee using protective footwear is responsible for:

- a) purchasing the type of protective footwear selected by the employer See Annex A: SELECTING AND MAINTAINING PROTECTIVE FOOTWEAR, and ensuring proper fit;
- b) wearing the protective footwear as required by the employer while performing specified tasks:
- c) following the manufacturer's instructions in the care, maintenance, and appropriate use of the protective footwear;
- d) reporting any defects or wear and tear damage to the protective footwear to their manager/supervisor;
- e) supplying any medically recommended inserts, such as insoles or orthotics, at his/her own expense.

#### 4.3. Policy Health and Safety Committee (PHSC)

In conjunction with the National Occupational Health and Safety Office, the PHSC is responsible for participating in consultations for the review of the Protective Footwear Guide.

# 4.4. Regional Health and Safety Advisory Committee (Regional Advisory Committee)

In conjunction with the Regional Occupational Health and Safety Advisor (ROHSA), the Regional Advisory Committee is responsible for:

- a) monitoring health and safety issues related to protective footwear at the regional level; and
- b) liaising with Workplace Health and Safety Committees and Health and Safety Representatives in their region to ensure the implementation of this Guide.

# 4.5. Workplace Health and Safety Committee (WHSC) or the Health and Safety Representative (HSR)

The WHSC or HSR is responsible for participating in the implementation and monitoring of the Protective Footwear Guide within the workplace.

#### 4.6. National Occupational Health and Safety Office (NOHSO)

The NOHSO is responsible for:

- a) reviewing and updating, as required, the Protective Footwear Guide, in consultation with the PHSC; and
- b) monitoring health and safety issues related to protective footwear at the national level.

#### 4.7. Regional Occupational Health and Safety Advisors (ROHSA)

The ROHSA is responsible for providing advice and guidance on the Protective Footwear Guide to management, Regional Advisory Committee and the WHSC/HSR.

#### 5. PURCHASING PROCESS

- a) The purchase of protective footwear shall be authorized by the manager/supervisor.
- b) The maximum amount that will be allowed for a pair of safety boots\* is \$200.00 including all applicable taxes, and \$125.00 including all applicable taxes for casual industrial shoes\*\*.
- c) Under exceptional circumstances, the manager/supervisor may, in consultation with the WHSC or HSR, authorize an amount in excess of the maximum amount if justifiable based on the job requirements, the work environment, the physical factors, the work location and other relevant factors.
- d) It is imperative that employees ensure proper fit of their footwear at the time of purchase with the consultation of on-site sales consultants. - See <u>Annex A: SELECTING AND</u> <u>MAINTAINING PROTECTIVE FOOTWEAR</u>

Managers/supervisors must follow departmental procedures when purchasing protective footwear for employees. Refer to the "How Do I Buy?" section of the Procurement iService site for more information about purchasing common low-dollar-value items. The line object to be used for the purchase of protective footwear is #4104 (clothing and accessories).

\*Safety boots (bottes de sécurité): Canadian Standards Association (CSA) approved steel or composite toe and plate boots with 6 inches to 8 inches collar.

\*\*Industrial casual shoes (chaussures industrielles tout-aller): Canadian Standards Association (CSA) approved steel or composite toe and plate shoe with no collar.

#### 6. REPLACEMENT

When the employee and the manager/supervisor determine that new footwear is required, the employee shall be entitled to receive replacement protective footwear.

#### 7. ENQUIRIES

Questions regarding this Guide, or its interpretation, must be directed to your <u>Regional OHS</u> <u>Advisor</u> through the <u>Human Resources Service Centre (HRSC)</u>.

## 8. MONITORING AND EVALUATION

The Guide on Protective Footwear will be monitored and evaluated in accordance with Module VI: Reporting, Monitoring, and Evaluation of the Departmental Occupational Health and Safety Program including regular reporting and data collection methods and with the participation of the PHSC, Regional Advisory Committees, WHSCs and HSRs, management, employees and OHS advisors.

#### 9. EFFECTIVE AND REVIEW DATE

Version 2.0 of this Guide takes effect on October 19<sup>th</sup>, 2016 and replaces the previous Version 1.0. It will be reviewed every three (3) years, or as required, to ensure consistency with changes to OHS-related legislation, regulations and directives. The next scheduled review will be in 2019.

Version	Date	Made By	Description
1.0	February 2013	Errin Starzynski	1 <sup>st</sup> Version
2.0	October 2016	Simon Barsoum	Cyclical Review

# ANNEX A – SELECTING AND MAINTAINING PROTECTIVE FOOTWEAR

1 - Identifying the Hazards	
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When selecting protective footwear, the types of hazards that exist for the feet dictate the features of the footwear that are required to protect yourself adequately.

The following table outlines common hazards seen in the workplace that may impact the feet. Check off all the ones that apply to your workplace:

✓	Existing or Potential Hazards
	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 foot
	Possible exposure to corrosive or irritating substances
	Possible explosive atmospheres including the risk of static electric discharges
	Damage to sensitive electronic components or equipment due to discharge of static electricity
	Coming into contact with energized conductors of low to moderate voltage (e.g. 220 volts or less)
	Uneven walking surfaces or rough terrain
	Exposure to extreme hot or cold
	Slips and falls on slippery walking surfaces
	Exposure to water or other liquids that might penetrate the footwear causing damage to the foot and the footwear
	Exposure to rotating or abrasive machinery (eg, chainsaws, grinders)

With these in mind, the following section provides guidance on features of protective footwear to protect against these types of hazards.

#### 2 - Suggested Protection for Various Hazards

The following table identifies the recommended footwear for various workplace hazards. It also indicates types of footwear that are not suggested for certain hazardous conditions. For hazards not included in this table, consult with your footwear provider or your Regional OHS Advisor for advice on appropriate protection.

	Protection Options							
Hazard	Toecap <sup>1</sup>	Sole <sup>2</sup>	Metatarsal <sup>3</sup>	Electrical Insulation <sup>4</sup>	Static Dissipation <sup>5</sup>	Conductive Sole <sup>6</sup>	Chainsaw Protection <sup>7</sup>	Comments
Falling Objects	<b>/</b> /		<b>/</b> /					Metatarsal guards are recommended where heavy objects may fall on foot
Rolling Objects	<b>//</b>		<b>√</b> √					Select Grade 1 Toecap
Sharp Objects	<b>/</b> /	<b>/ /</b>	<b>/</b> /					Protect against sharp object penetrating sole and top of foot
Hot Objects	<b>✓</b>	✓	✓					Select thermal insulating foot wear in high- heat conditions
Electric Shock				<b>//</b>	x	x		SD and conductive footwear offer no protection
Static Discharge Micro- circuits				x	<b>√√</b>			Insulating footwear is hazardous to circuits
Static Ignition				x		<b>/</b> /		In addition, ground all containers and equipment
Saw Cutting	<b>//</b>	<b>√</b>	✓				<b>/</b> /	Select footwear for environmental conditions

<sup>✓ -</sup> Highly recommended

<sup>✓ -</sup> Recommended (depending on hazard)

<sup>✗ −</sup> Do not use

<sup>&</sup>lt;sup>1</sup> Protective toecap – a component that, when incorporated into a boot or shoe, provides protection against the impact at the top of the boot.

#### Slip Resistance

Selecting slip resistance for protective footwear depends on the conditions existing in the workplace. Where slip resistance is required, consider the following about your workplace when speaking with your footwear provider on applicable options:

- Type of surface material
- Smoothness of walking surface
- Whether it is a dry or wet surface
- The type of liquid on a we surface
- The temperature of the surface
- The temperature of the air

#### Ankle Protection

Where existing or potential hazards are present that could cause injury to ankles, such as uneven terrain, slippery surfaces, or punctures/cuts to this area, a collar of 6 to 8 inches should be considered on the protective footwear.

#### 3 - Fit & Maintenance

#### Fitting Protective Footwear

The following are guidelines for users of protective footwear to ensure proper selection and fit:

- Never choose footwear based on style alone
- Choose a boot/shoe that offers comfort, breathability, flexibility and ample toe room
- Ensure hosiery, orthotics or insole supports to be used with footwear are worn during selection

<sup>&</sup>lt;sup>2</sup> Protective sole plate – an integrated component (metallic or non-metallic) that provides puncture protection to the sole of the foot.

<sup>&</sup>lt;sup>3</sup> Metatarsal protection – an integrated component that protects the complete dorsum (top side) of the foot.

<sup>&</sup>lt;sup>4</sup> Electric-shock-resistant sole – a sole and heel design and method of attachment to the footwear that, at the point of manufacturing, has electrical-insulating properties.

<sup>&</sup>lt;sup>5</sup> Static-dissipative footwear – a boot or shoe designed to continuously dissipate electrostatic charges.

<sup>&</sup>lt;sup>6</sup> Conductive footwear – a boot or shoe designed to continuously electrically ground the foot and thereby prevent an electrical discharge that might ignite volatile, flammable materials in close proximity to the wearer.

<sup>&</sup>lt;sup>7</sup> Chainsaw-protective footwear – boots that are designed to prevent a chainsaw from cutting into the shin, ankle, foot, and toes.

- Lace up boot/shoe all the way to the top to ensure comfort and proper fit around heel and ankle (where applicable)
- Consider sole of foot wear depending on walking surface and environmental conditions, some sole materials/treads may be more durable and easier to maintain.
- Normally feet swell during the daily work shift. Choose footwear to accommodate a slightly larger size. Best time for fitting shoes is midday
- Make sure that the ball (the area of protrusion at the base of the big toe) of your foot fits well in the widest part of the shoe
- Steel toes will not stretch! If does not fit initially, it will not fit later

#### Maintenance of Footwear

The attributes of protective footwear perform optimally when they are maintained in good condition. It is important that the user of this equipment:

- Refer to the manufacturer's instructions for proper storage, cleaning and care of the footwear
- Check protective footwear before and after each use if they are any cracks in soles, breaks in leather, broken or frail shoelaces, exposed toecaps or similar damage that reduces the protective qualities of the footwear. This should be reported to the immediate manager or supervisor for replacement.

#### 4 - Monitoring Effectiveness

Management and users of protective footwear should be continually monitoring the effectiveness of the selected footwear and the hazards in the workplace. Any concerns amongst users regarding the footwear or previously unknown hazards to the feet should be reported to the employee's manager/supervisor.

Documentation should also be kept recording the user (employee) and the date of purchase of the footwear.

#### Canadian Standards Association – Z195-14 Standard on Protective Footwear

The following symbols, or markings, will help you determine which footwear is appropriate for the job:

Marking	Criteria	Use
®	Green triangle has sole puncture protection with a Grade 1 protective toecap (withstand impact up to 125 joules - Comparable to a 22.7 kg (50 lb) weight dropped from 0.6 m).	Any industrial or heavy work environment, including construction, where sharp objects are present (such as nails).
®	Yellow triangle footwear has sole puncture protection and Grade 2 protective toecap (withstand impact up to 90 joules - Comparable to a 22.7 kg (50 lb) weight dropped from 0.4 m)	Light industrial work environments that need both puncture and toe protection.
$\Omega$ ®	White rectangle with orange Greek letter "omega" has soles that provide electric shock resistance.	Any industrial environment where accidental contact with live electrical conductors can occur.  REMEMBER: Electric shock resistance is greatly reduced by wet conditions and with wear. Also know that conductive footwear relates to an electrical discharge that might ignite volatile, flammable materials that are close to the wearer. Live electrical work should follow recommendations for an electrically conductive clothing ensemble (as specified under CAN/ULC-60895).
<b>SD</b> ®	Yellow Rectangle with "SD" letters indicates static dissipative footwear.	Any industrial environment where a static discharge can be a hazard for workers or equipment.
SE+®	Yellow Rectangle with "SD+" indicates super-static dissipative footwear.	Any industrial environment where a static discharge can be a hazard for workers or equipment.
C®	Red rectangle with white C letter indicates electrically conductive footwear.	For any industrial environment where low-power electrical charges can be a hazard for workers or equipment.
M®	Dark grey rectangle with M letter indicates metatarsal protection.  Note: Toe protection is required for all metatarsal protective footwear.	For forestry workers and others who work with or around hand-held chainsaws and other-cutting tools.
<b>♣</b> ®	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.
R	Blue rectangle footwear provides Grade 1 protective toecap with no puncture-resistant sole	For industrial work that does not require puncture protection.
R	Grey rectangle footwear provides Grade 2 protective toecap with no puncture-resistant sole	For institutional and non-industrial work that does not require puncture protection.

Note 1: The  $\circledR$  symbol indicates the preferred position for the identifying logo or mark or the certifying agency.

Note 2: Labels are on the tongue of the right shoe at ankle height. They may also appear at ankle height on the shoe itself (for electrical protection footwear)