





## 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 High-Visibility Apparel 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 Personal Protective Equipment High Visibility Apparel Code relates to section 4 and 5 of the *Safety Act* and part 3 sections 13, 16, 23, 24 and 26, Part 6 section 74, Part 7 sections 89, 90, 94, and Part 9 sections 138 and 139 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*.

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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 This publication may refer to legislation that has been amended or repealed.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](http://wsc.nt.ca) or [wsc.nu.ca](http://wsc.nu.ca), or contact WSCC at 1-800-661-0792.

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# 1 INTRODUCTION

This High-Visibility Apparel code of practice provides basic guidelines to ensure worker safety in the workplace through the use of personal protective equipment (PPE). Workers exposed to hazards such as moving roadway traffic or construction equipment must wear high-visibility safety apparel to protect them from hazards.

Working near traffic and around construction exposes workers to considerable risk. PPE, such as high-visibility clothing, minimizes exposure to these occupational hazards. PPE cannot eliminate a hazard, but can reduce the risk of injury. High-visibility apparel make workers stand out from their background, differentiates wearers, and provides greater visibility during nighttime work.

## 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**

## 2 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.
- (2) An employer or supplier shall ensure that the approval of equipment and personal protective equipment by an agency is evidenced by a seal, stamp, logo or similar identifying mark of the agency indicating such approval, affixed on
- (a) the equipment or personal protective equipment; or
  - (b) the packaging accompanying the equipment or personal protective equipment.

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

### CAN/CSA-Z96-015 (R2020)

<b>CAN/CSA</b>	Stands for Canada and the Canadian Standards Association.
<b>Z96</b>	Lettering between CAN/CSA and the last two digits represent the internal CSA coding of the relevant standard. In this case the coding refers to the standard on <b>High-Visibility Safety Apparel</b> .
<b>15</b>	The last two digits indicate the year issued.

Technological and research developments result in regular updates to standards. When the standard is updated, the end of the CSA reference changes. The new standard becomes the standard that applies.

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

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### 3 PPE AND HAZARD ASSESSMENT

The CSA Standard recommends that a hazard assessment be carried out on each job site to evaluate the workplace or work site for known or potential hazards a worker can encounter while performing a job or task. This assessment helps determine the risk to workers of being hit by moving vehicles and the environmental conditions under which work is performed.

When doing a hazard assessment where High-Visibility Safety Apparel (HVSA) might be required, be sure to consider:

- The type and nature of the work being carried out - including the tasks of both the HVSA wearer and any drivers.
- Whether workers will be exposed to heat and/or flames (if so, flame-resistant HVSA would be required).
- Work conditions, such as indoor or outdoor work, temperature, work rates, traffic flow, traffic volume, visibility, etc.
- The workplace environment and the background workers must be seen in (e.g. is the visual area behind the workers simple, complex, urban, rural, highway, filled with equipment, cluttered).
- How long the worker is exposed to various traffic hazards, including traffic speeds.
- Lighting conditions and how the natural light might be affected by changing weather (sunlight, overcast sky, fog, rain, or snow).
- Factors that affect warning distances and times, such as the size of vehicles, their potential speeds, the ability to stop quickly, and surface conditions.
- If there are any engineering and administrative hazard controls already in place (e.g. barriers).
- Any distractions that could draw workers attention away from hazards.
- The sightlines of vehicle operators, especially when vehicles are operated in reverse.
- If certain jobs, or the function being done, need to be "visually" identifiable from other workers in the area.

Source: *High-Visibility Safety Apparel*, Canadian Centre for Occupational Health and Safety (CCOHS), [http://www.ccohs.ca/oshanswers/prevention/ppe/high\\_visibility.html](http://www.ccohs.ca/oshanswers/prevention/ppe/high_visibility.html) Reproduced with permission of CCOHS, 2016.

## 4 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. Using PPE such as high-visibility apparel is the last line of defense against accidents by providing more warning to vehicle operators that workers are on foot in the area.

### THE FIVE BASIC WAYS TO CONTROL HAZARDS AND EXAMPLES:

1. **Elimination** (remove from the work site)
2. **Substitution** (use a less harmful substance)
3. **Engineering** (isolate equipment/set barriers)
4. **Administration** (provide training/maintenance)
5. **Personal Protective Equipment** (provide high-visibility apparel)

The use of PPE does not prevent accidents or eliminate hazards. Make every effort to control all hazards at the source or use physical barriers and other engineering controls to reduce exposure of workers to moving vehicles. 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.** Certain hazards may require multiple PPE solutions. For example, working near machinery on the road could require a hard hat, ear muffs, goggles and high-visibility safety apparel.

**Wearing PPE should not add to the hazard or create a new hazard.** For instance, proper glove selection can prevent skin damage, but gloves worn while working with moving equipment can create an entanglement hazard. Using different types of protection at the same time (i.e. hard hat, ear muffs and goggles) should not increase the risk to the worker.

**PPE design criteria cannot cover all eventualities.** Do not use PPE when its usage creates hazards greater than those for which it is designed. Take uncertainties into account when evaluating potential hazards.

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[For more information see the PPE codes of practice, the \*Hazard Assessment Code of Practice\* and \*Traffic Control Person Training Guideline\* at \[wscc.nt.ca\]\(http://wscc.nt.ca\)](#)

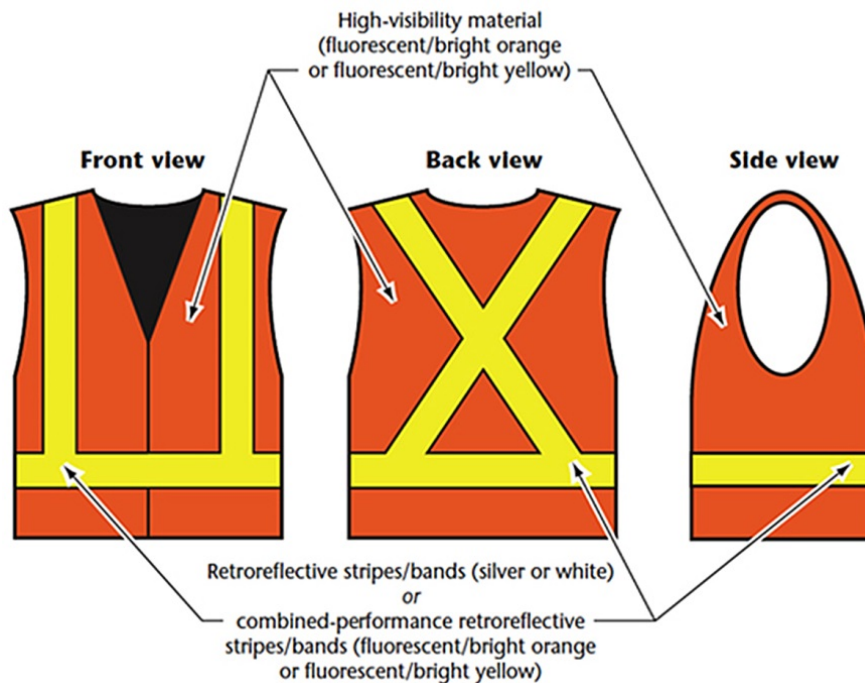
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## 5 GENERAL INFORMATION

High-visibility safety apparel (HVSA) is clothing (e.g. vests, bibs or coveralls) that workers can wear to improve how well other people "see" them (their visibility). Most often, high-visibility clothing is worn to alert drivers and other vehicle operators of a worker's presence, especially in low light and dark conditions. High-visibility headwear can also be worn to increase the visibility of the wearer in situations where part or all of the wearer's body could be obscured (e.g. leaves/trees, traffic barriers, construction materials, etc.).

Best practices for high-visibility safety clothing for Canadian workers are found in the Canadian Standards Association (CSA) Standard Z96-15 (R2020) *High-Visibility Safety Apparel*.



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For information on clothing for working outside see the [Thermal Conditions Code of Practice](#) or *Traffic Control Person* code of practice at [wscn.nt.ca](http://wscn.nt.ca)

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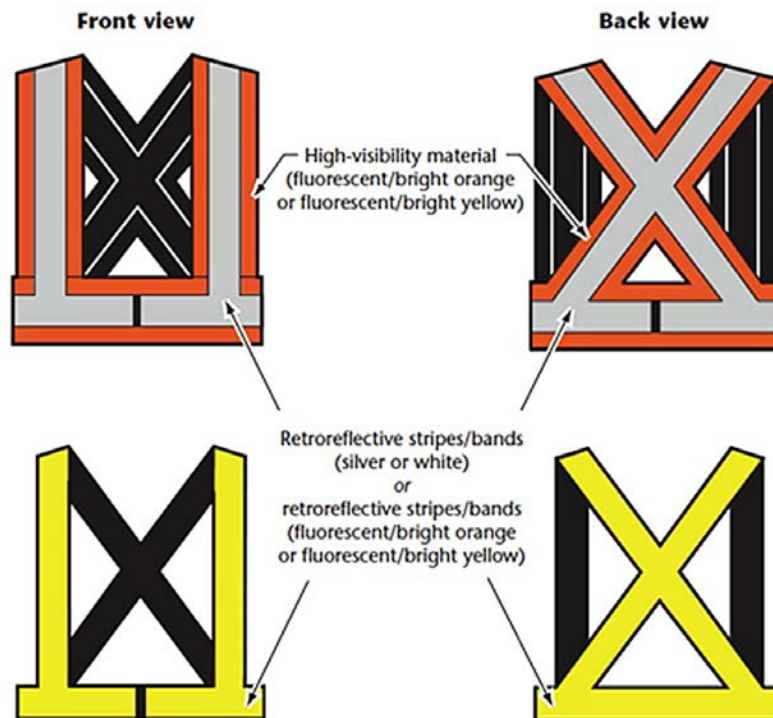
## 5.1 HIGH-VISIBILITY MATERIALS

**Fluorescent material** takes a portion of invisible ultraviolet light from sunlight, and through special pigments, sends it back to the viewer as more visible light. This material only functions where there is a source of natural sunlight.

Fluorescent material will appear brighter than the same coloured non-fluorescent material, especially under low natural light (e.g. cloud cover, fog, dusk, dawn, etc.). This property offers daytime visibility enhancement not present with other colours. These materials enhance daytime visibility, especially at dawn and dusk. Fluorescent colours provide the greatest contrast against most backgrounds.

**Retroreflective material** is created to return light in the direction of the light's source. This property will let a driver see the light reflected from the retroreflective material on a person's garment (as long as the person is standing in the light's beam). Retroreflective materials are most effective under low-light level conditions.

While retroreflective materials can still reflect in the daylight, there is little difference between the light reflected from the garment's material and the surrounding environment. This lack of contrast makes retroreflective materials ineffective for enhanced visibility during (sunny) daytime conditions.



Source: *High-Visibility Safety Apparel*, Canadian Centre for Occupational Health and Safety (CCOHS), Reproduced with permission of CCOHS, 2016.

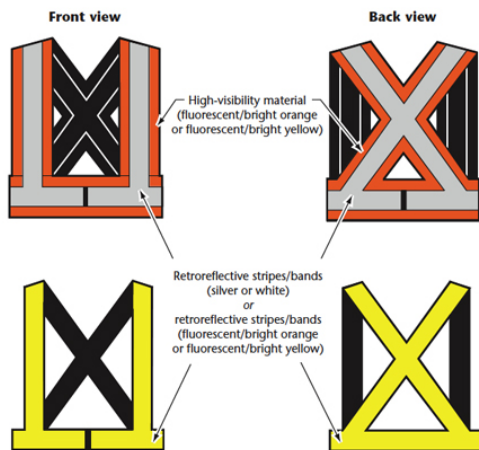
## 6 CLASSES

CSA Standard Z96-15 (R2020) lists three classes of garments based on body coverage provided. Each class covers the torso (waist to neck) and/or limbs according to the minimum body coverage areas specified for each class. For more details on the exact specifications, refer to the CSA Standard.

- Class 1 provides the lowest recognized coverage and good visibility.
- Class 2 provides moderate body coverage and superior visibility.
- Class 3 provides the greatest body coverage and visibility under poor light conditions and at great distance.

### 6.1 LOW RISK

#### Example of Class 1 Apparel



#### Low Risk: Class 1 – 2 based on certain conditions

Examples of situations:

- Workers in activities that permit full and undivided attention to approaching traffic.
- When there is ample separation between the worker on foot and the traffic.
- When work backgrounds are not complex, allowing for optimal visibility.
- When vehicles are moving slowly (e.g. less than 40 km/h (25 mph).
- When workers are doing tasks that divert attention from approaching traffic.

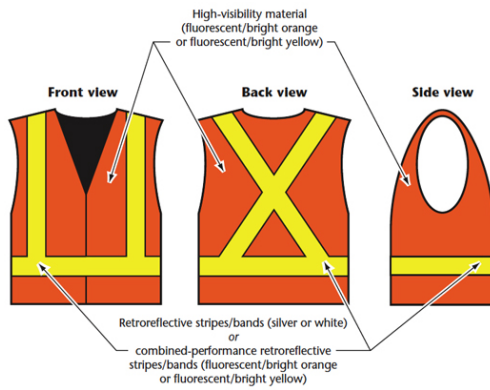
**Note:** Other options are possible, including a shirt made of non-high-visibility material, but with high-visibility or retroreflective stripes/bands.

Examples of jobs include:

- Workers directing vehicle operators to parking or service locations.
- Workers retrieving shopping carts in parking areas.
- Workers in warehouse operations.
- "Right-of-Way" or sidewalk maintenance workers.
- Workers in shipping or receiving operations.

## 6.2 MEDIUM RISK

### Examples of Class 2 Apparel

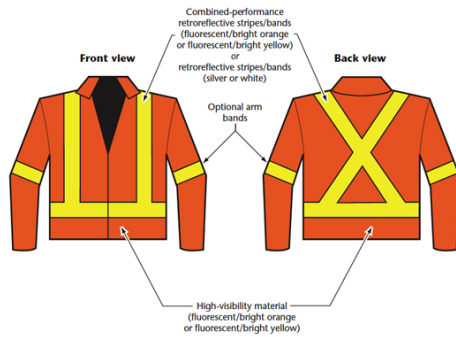


### Medium Risk: Class 2-3 based on certain conditions

#### Examples of situations:

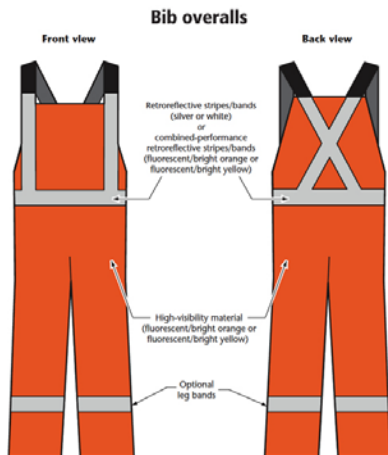
- When vehicles or equipment are moving between 40-80 km/h (25-50 mph).
- Workers who require greater visibility under inclement weather conditions or low light.
- When work backgrounds are complex.
- When workers are performing tasks that divert attention from approaching vehicle traffic.
- When work activities are in closer proximity to vehicles (in or near flowing vehicle traffic).

### Examples of Class 2 Apparel



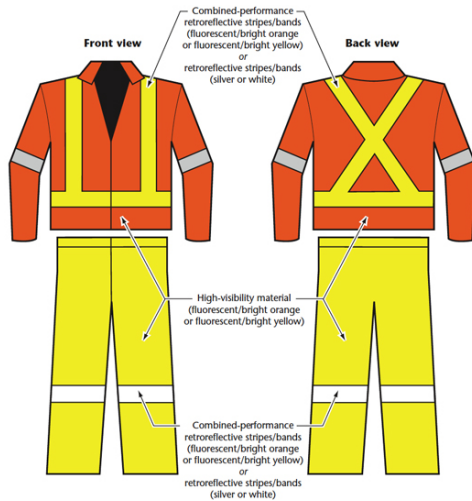
#### Examples of jobs include:

- Roadway construction, utility, forestry or railway workers.
- Utility workers
- Survey crews
- Forestry workers
- School crossing guards
- Parking and/or toll gate workers
- Airport baggage handlers and ground crews.
- Emergency response personnel
- Members of law enforcement
- Accident site investigators
- Railway workers



## 6.3 HIGH RISK

### Example of Class 3 Apparel

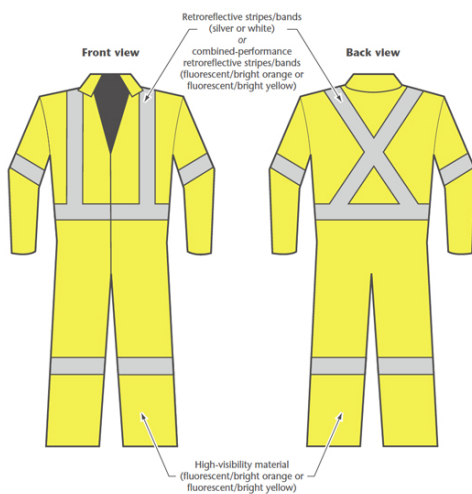


### High Risk: Class 2 for daytime, Class 3 for low-light conditions

#### Examples of situations:

- Vehicle speeds exceeding 80 km/h (50 mph).
- Workers on foot and vehicle operators with high task loads that clearly place the worker in danger.
- When the wearer must be conspicuous through the full range of body motions at a minimum of 390 m (1,280 ft).
- Work activities taking place in low light or at nighttime.

### Example of Class 3 Apparel



#### Examples of jobs include:

- Roadway construction workers
- Utility workers
- Survey crews
- Emergency responders
- Road assistance/courtesy patrols
- Flagging crews
- Towing operators

Source: *High-Visibility Safety Apparel*, Canadian Centre for Occupational Health and Safety (CCOHS), Reproduced with permission of CCOHS, 2016.

For more details on the exact specifications, refer to the CSA Standard; *CSA Standard Z96-15 (R2020) High-visibility Safety Apparel*.

## 7 SELECTION

The CSA Standard Z96-15 (R2020) *High-visibility Safety Apparel* sets out levels of retroreflective performance (i.e. the effectiveness of material in returning light to its source), the colours and luminosity of background materials, and how much of the body should be covered by the high-visibility components. There are also special requirements for garments that provide electrical flash and flame protection.

### SELECTION CRITERIA

1. Coverage
2. Fit
3. Brightness
4. Colour
5. Design

#### 7.1 COVERAGE

- Large, bright garments are more visible than small ones. Coverage all around the body (360° full body coverage) provides better visibility in all viewing directions.
- Stripes of colours that contrast (have a distinct colour difference) with the background material to provide good visibility. Stripes on the arms and legs can provide visual clues about the motion of the person wearing the garment.
- When background material is bright-coloured or fluorescent material, it is intended to be highly visible, but is not intended to provide retroreflective performance.
- Other requirements such as flame resistance, thermal performance, water resistance, durability, comfort, tear-away features, material breathability and flexibility that are applicable to the job.
- Employers should select the colour and stripe combination that provides the preferred contrast and visual indication of movement.

#### 7.2 FIT

- For safety and best performance, garments should be fitted to the person. Don't forget to consider the bulk of clothing that might be worn underneath the garments, and how the garment should be worn (i.e. done up properly around the body with no loose or dangling components). The garments should sit correctly on your body and stay in place during your work.
- The apparel should be comfortable to wear. The parts of the apparel that come into direct contact with the worker should not be rough, have sharp edges, or

- projections that could cause excessive irritation or injuries. The apparel should also be lightweight.
- Garments should be selected and worn so that no other clothing or equipment covers the high-visibility materials (e.g. glove gauntlets, equipment belts, and high-cut boots).

### 7.3 BRIGHTNESS

- **Daylight:** Bright colours are more visible than dull colours under daylight conditions (e.g. fluorescent materials are suitable for daylight).
- **Low light conditions:** Fluorescent colours are more effective than bright colours under low light (e.g. dawn and dusk). Under these conditions, reflective materials are also suggested.
- **Dark conditions/work sites:** Greater retroreflectivity provides greater visibility under low light conditions. Retroreflective materials provide high-visibility conditions and are preferred over bright colours. Fluorescent materials are ineffective at night and less visible than white fabrics.

### 7.4 COLOUR

- For all classes, the CSA Z96-15 (R2020) *High-Visibility Safety Apparel Standard* specifies both the colour of the background and the stripes/bands.
- Class 1 (e.g. harness style) must have a minimum of 0.14 metres squared of background material.
- Background material should be one of fluorescent yellow-green, fluorescent orange-red or fluorescent red; or one of bright yellow-green, or bright orange-red.

### 7.5 DESIGN

To comply with the CSA Standard, the HVSA should meet the following criteria:

- A waist-level horizontal stripe/band that goes completely around the HVSA.
- Two vertical stripes on the front passing over the shoulders and down to the waist.
- A symmetric "X" on the back extending from the shoulders to the waist.
- For Class 3 apparel, stripes/bands encircling both arms and both legs are added.

Source: *High-Visibility Safety Apparel*, Canadian Centre for Occupational Health and Safety (CCOHS), Reproduced with permission of CCOHS, 2016.

## 8 TRAINING AND MAINTENANCE

### TRAINING

As with any personal protective equipment, workers should be given appropriate training in the use and care of the equipment. The following minimum information should be provided to workers wearing high-visibility apparel:

- When to use the high-visibility apparel.
- Fitting instructions, including how to put on and take off the apparel, if relevant.
- The importance of using the apparel only in the specified way.
- Limitations of use.
- How to store and maintain the apparel correctly.
- How to check for wear and tear.
- How to clean or decontaminate the apparel correctly with complete washing and/or dry cleaning instructions.

### CARE/MAINTENANCE

Keep your high-visibility apparel clean and well-maintained. Contaminated or dirty retroreflective materials provide lower visibility.

Replace garments that show signs of wear and tear, soiling, or contamination as it will no longer be able to provide acceptable levels of visibility.

Purchasers of HVSA should get proof that the materials used and the design of the garment meet the requirements of the CSA Z96-15 (R2020) Standard.

*Source: High-Visibility Safety Apparel, Canadian Centre for Occupational Health and Safety (CCOHS), Reproduced with permission of CCOHS, 2016.*



## 9 LEGISLATION

Part 3: General Duties of Workers in the *Regulations* emphasizes that workers may not opt out of using PPE when the *Regulations* determine that the task they perform requires PPE to keep workers safe.

Employers must ensure their supervisors know what PPE is required at a work site, and how to use and maintain it properly. The employer is also responsible for ensuring workers use PPE.

### ***Occupational Health and Safety Regulations***

#### **Northwest Territories and Nunavut**

#### **Part 3 GENERAL DUTIES**

##### **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,

##### **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.
- (2) An employer or supplier shall ensure that the approval of equipment and personal protective equipment by an agency is evidenced by a seal, stamp, logo or similar identifying mark of the agency indicating such approval, affixed on
- (a) the equipment or personal protective equipment; or
  - (b) the packaging accompanying the equipment or personal protective equipment.

##### **Maintenance and Repair of Equipment**

- 24.** (1) An employer shall ensure that equipment is maintained at intervals that are sufficient to ensure the safe functioning of the equipment.
- 2) If a defect is found in equipment, an employer shall ensure that, as soon as is

reasonably possible,

- (a) steps are taken, until the defect is corrected, to protect the health and safety of workers who could be endangered; and
- (b) the defect is corrected by a competent worker or the equipment is replaced.

- (3) A worker who knows or has reason to believe that equipment under his or her control is in an unsafe condition shall, as soon as is reasonably possible,
- (a) report the condition of the equipment to the employer; and
  - (b) repair the equipment, if the worker is authorized and competent to do so, or replace the equipment or remove the equipment from service.

#### **Prohibited Use of Compressed Air**

- 26.** An employer shall ensure that no compressed air is directed towards a worker for
- (a) the purpose of cleaning clothing or personal protective equipment; or
  - (b) any other purpose, if the use of compressed air could cause dispersion into the air of contaminants that could be harmful to workers.

#### **Part 6**

#### **GENERAL HEALTH REQUIREMENTS**

##### **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.

#### **Part 7**

#### **PERSONAL PROTECTIVE EQUIPMENT**

##### **Suitable and Adequate Equipment**

- 89.** (1) If it is not reasonably possible to protect the health and safety of a worker by design of a plant and work processes, suitable work practices or administrative controls, an employer shall ensure that the worker wears or uses suitable and adequate personal protective equipment.
- (2) If personal protective equipment will not effectively protect a worker, an employer shall, if reasonably possible, provide alternative work arrangements for the worker.

##### **General Responsibilities**

- 90.** (1) An employer who is required by these regulations to provide personal protective equipment to a worker shall
- (a) provide approved personal protective equipment for use by the worker at no cost to the worker;

- (b) ensure that the personal protective equipment is used by the worker;
  - (c) ensure that the personal protective equipment is at the work site before work begins;
  - (d) ensure that the personal protective equipment is stored in a clean, secure location that is readily accessible to the worker;
  - (e) ensure that the worker is
    - (i) aware of the location of the personal protective equipment, and
    - (ii) trained in its use;
  - (f) inform the worker of the reasons why the personal protective equipment is required to be used and of the limitations of its protection; and
  - (g) ensure that personal protective equipment provided to the worker is
    - (i) suitable and adequate and a proper fit for the worker,
    - (ii) maintained and kept in a sanitary condition, and
    - (iii) removed from use or service when damaged.
- (2) If an employer requires a worker to clean and maintain personal protective equipment, the employer shall ensure that the worker has adequate time to do so during normal working hours without loss of pay or benefits.
- (3) If reasonably possible, an employer shall make appropriate adjustments to the work procedures and the rate of work to eliminate or reduce any danger or discomfort to the worker that could arise from the worker's use of personal protective equipment.
- (4) A worker who is provided with personal protective equipment by an employer shall
- (a) use the personal protective equipment; and
  - (b) take reasonable steps to prevent damage to the personal protective equipment.
- (5) If personal protective equipment provided to a worker becomes defective or otherwise fails to provide the protection it is intended for, the worker shall
- (a) return the personal protective equipment to the employer; and
  - (b) inform the employer of the defect or other reason why the personal protective equipment does not provide the protection that it was intended to provide.
- (6) An employer shall immediately repair or replace any personal protective equipment returned to the employer under paragraph (5)(a).

**94.** (4) If visibility of a worker is necessary to protect the health and safety of the worker, an employer shall ensure that any industrial head protection provided to a worker under these regulations is fluorescent orange or some other high visibility colour.

## **PART 9 SAFEGUARDS, STORAGE, WARNING SIGNS AND SIGNALS**

**138.** (2) An employer shall

- (a) provide each designated signaller with, and require the signaller to use, a high visibility vest, armbands or other high visibility clothing; and
- (b) provide each designated signaller with a suitable light to signal with during hours of darkness as defined in section 161 and in conditions of poor visibility.

### **Risk from Vehicular Traffic**

**139.** (1) If a worker is at risk from vehicular traffic on a highway or at any other work site, an employer shall ensure that the worker is provided with and required to use a high visibility vest, armbands or other high visibility clothing.

# Personal Protective Equipment Code of Practice

## **HIGH – VISIBILITY APPAREL**

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.