

Code of Practice Personal Protective Equipment **EYE AND FACE PROTECTION**

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WHAT IS A CODE OF PRACTICE?

The Workers' Safety and Compensation Commission (WSCC) Codes of Practice (COP) provide practical guidance to achieve the safety requirements of the Northwest Territories and Nunavut Safety Acts and related Regulations.

Codes of Practice come into effect in each territory on the day they are published in the Northwest Territories Gazette and Nunavut Gazette.

Codes of Practice do not have the same legal force as the *Acts*, the *Mining Regulations*, or the *Occupational Health and Safety Regulations*. A person or employer cannot face prosecution for failing to comply with a COP. They are considered industry best practice and may be a consideration when determining whether an employer or worker has complied with the *Safety Acts* and *Regulations* in legal proceedings.

As per subsection 18(3) of the Northwest Territories and Nunavut *Safety Acts*, "For the purpose of providing practical guidance with respect to the requirements of any provision of this Act or the regulations, the Chief Safety Officer may approve and issue such codes of practice as he or she considers are suitable for that purpose."

Employers and workers should follow WSCC Codes of Practice unless there is an alternative course of action that achieves the same or better occupational health and safety outcomes.

A Code of Practice

- Provides practical guidelines.
- Adapts to individual work sites.
- May serve as evidence.
- Should be followed unless there's a better way.

Copies of this code are available online from the WSCC at: wsc. nt.ca or wsc. nu.ca

If you would like this code of practice in another language, please contact us.

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 Eye and Face 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 Eye and Face Protection Code relates to section 4 and 5 of the *Safety Act* and sections 89, 90, , 97, 102, 151, 153, 320, 358, 360 and 466 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

REVISED AND CONFIRMED: September 30, 2021.



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 Eye and Face Protection code of practice provides basic guidelines to ensure worker safety in the workplace through the use of personal protective equipment (PPE) for the eyes and face. PPE is required by regulations to protect workers from hazards.

Every year thousands of people are blinded from work-related injuries that could have been prevented with the proper selection and use of eye and face protection. Eye and face protection must be provided to protect against chemical, environmental, radiological or mechanical irritants and hazards.

Protective eyewear includes non-prescription and prescription safety glasses, goggles, face shields, welding helmets and full-face respirators and eye guards.

Definition

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

PPE cannot eliminate a hazard, but can reduce the risk of injury.



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](#) at [wscc.nt.ca](#)

2 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 safety glasses/face shields)

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. Certain hazards may require multiple PPE solutions. For example, working with chlorine requires respiratory and eye protection because chlorine irritates both the respiratory system and the mucous membranes of the eyes.

Wearing PPE should not add to the hazard or create a new hazard. Using different types of protection at the same time i.e. hard hat, hearing protection and safety eye wear, should not increase the risk to the worker.

PPE design criteria cannot cover all eventualities. Accidental chemical exposures can still occur even with good engineering controls and safety precautions. As a result, it is essential to look beyond the use of goggles, face shields. Emergency showers and eyewash stations are a necessary backup to minimize the effects of accident exposure to chemicals.

Eye Flushing Equipment

320. If there is a risk to the eyes of a worker from corrosive or other hazardous substances, an employer shall provide and maintain, at readily accessible locations, approved equipment to flush the eyes of the worker with lukewarm water or another appropriate liquid.

[NWT & NU Occupational Health and Safety Regulations, Section 320]

3 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-Z94.3-20

CAN/CSA	Stands for Canada and the Canadian Standards Association.
Z94.3	The coding refers to the standard on Eye and Face Protectors .
2020	The last two digits indicate the year issued.

CAN/CSA- Z94.3.1-16

CAN/CSA	Stands for Canada and the Canadian Standards Association.
Z94.3.1	The coding refers to the Guideline for Selection, Use and Care of Protective Eyewear .
2016	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.

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

4 GENERAL INFORMATION

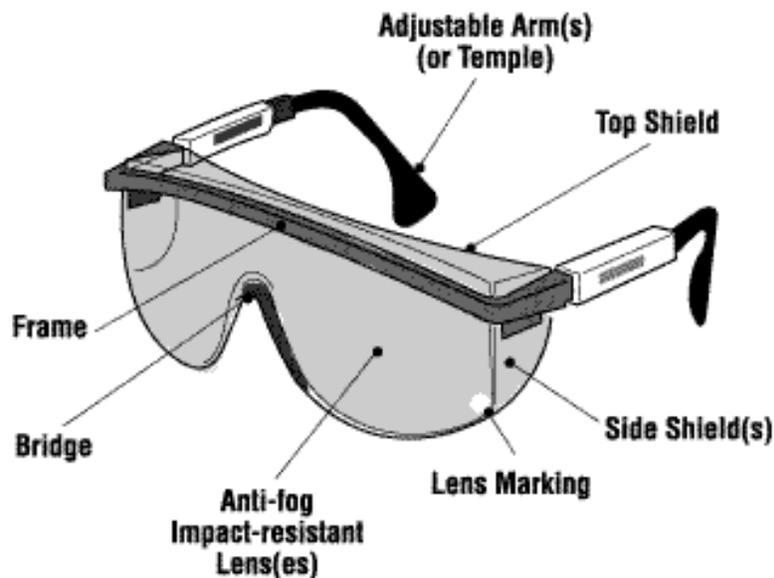
If eye protection is required, establish a complete eye safety protection program including selection, fit testing, training, maintenance and inspection.

4.1 SAFETY EYEWEAR

Lenses: CSA-certified eye and face protectors must meet the criteria for impact resistance as outlined in the standard. Only devices made of approved materials are permitted.

Markings: The manufacturer or supplier mark must be present on all approved safety lenses, frames (front and temple), removable side shields, and other parts of the glasses, goggles, or helmets.

Frames: Safety frames are stronger than street-wear frames and are often heat resistant. They are also designed to prevent lenses from being pushed into the eyes.



Source: *Safety Glasses and Face Protectors*, Canadian Centre for Occupational Health and Safety (CCOHS), 2017, www.ccohs.ca/oshanswers/prevention/ppe/glasses.html#_1_6

4.2 DIFFERENCES BETWEEN LENSES

Comparison of Lens Materials	
Material	Characteristics
Hi-Vex	<ul style="list-style-type: none"> • More impact resistant than CR39 plastic • Available with all surface treatments (coatings) • 100% UV filtering • Light weight • Material is very clear
Polycarbonate	<ul style="list-style-type: none"> • Most impact-resistant of all lens materials • Lightweight • Can be coated for scratch resistance • Most have built-in UV radiation absorption properties
Plastic (CR39)	<ul style="list-style-type: none"> • About one-half the weight of glass • Resistant to solvents and pitting
Trivex	<ul style="list-style-type: none"> • More impact resistant than CR39 Plastic • Less impact resistant than polycarbonate • UV radiation absorption properties
Glass	<ul style="list-style-type: none"> • High-density material in heavy lenses. • Loses impact resistance if scratched • Does not meet impact criteria as set by CSA Z94.3

Source: Z94.3.1-16 *Guideline for selection, Use and Care of Protective Eyewear*, Canadian Standards Association, 2016.

5 GUIDE TO SELECTION

Consult with the PPE manufacturer about the uses and limitations for each type of eye or face protection.

5.1 FIT

- Ensure your safety eye wear fits properly. Eye wear should cover from the eyebrow to the cheekbone, and across from the nose to the bony area on the outside of the face and eyes. Eye size, bridge size and temple length all vary.
- Eye wear should be individually assigned and fitted so that gaps between the edges of the device and the face are kept to a minimum.
- Eye wear should fit over the temples comfortably and over the ears. The frame should be as close to the face as possible and adequately supported by the bridge of the nose.
- Users should be able to see in all directions without any major obstructions in their field of view.

5.2 LENS COLOURS

- Lenses can be clear, tinted, photochromic or polarized.
- Each type offers various levels of ultraviolet protection, including no protection, even when coloured.

5.3 CONTACT LENSES

97. (4) A worker who is required by these regulations to use an industrial eye protector or face protector shall not wear contact lenses.

[NWT & NU Occupational Health and Safety Regulations, Section 97.(4)]

5.4 APPROPRIATE PROTECTION

If you are at risk for eye or face injury at work you must wear the appropriate safety glasses and face protection.

*Face shields are used to protect your eyes, nose, mouth and face from flying objects and liquids. They are not a good substitute for face masks.

For guidance on selecting the proper protection see the table on the next page.

5.5 CLASSES OF PROTECTORS

<p>Note: This table cannot cover all possible hazards and combinations that may occur. Examine each situation carefully and select the appropriate protector or combination of protectors.</p> <p>*indicates recommended protection</p>	Spectacles (Class 1)		Goggles (Class 2)					Welding Helmet (Class 3)	Welding Hand Shield (Class 4)	Non-Rigid Hoods (Class 5)					Face Shields (Class 6)			
	A	B	A	B	C	D	E			A	B	C	D	E	A	B	C	D
Flying Objects																		
Chipping, drilling, scaling, grinding, polishing, buffing, riveting, punching, shearing, hammer mills, crushing, heavy sawing, planing, wire and strip handling, hammering, unpacking, nailing, punch press, lathework, etc.	*		*	*						*	*				*			*
Flying particles, dust, wind, etc.																		
Woodworking, sanding, light metal working and machining, exposure to dust and wind, resistance welding (no radiation exposure), sand, cement, aggregate handling, painting, concrete work, plastering, material batching and mixing	*		*	*						*	*				*			*
Heat, sparks and splash from molten materials																		
Babbliting, casting, pouring molten metal, brazing, soldering, spot welding, stud welding, hot dipping operations		*			*							*	*			*	*	*

	A	B	A	B	C	D	E			A	B	C	D	E	A	B	C	D
Acid splash, chemical burns																		
Acid and alkali handling, degreasing, pickling and plating operations, glass breakage, chemical spray, liquid bitumen handling				*							*				*			
Abrasive blasting materials																		
Sand blasting, shot blasting, shotcreting				*							*				*			
Glare, stray light (for reduction of visible radiation)																		
Reflecting, bright sun and lights, reflected welding flash, photographic copying	*		*	*						*	*				*			
Injurious optical radiation (moderate reduction of optical radiation)																		
Torch cutting, welding, brazing, furnace work, metal pouring, spot welding, photographic copying		*			*							*				*		
Injurious optical radiation (large reduction of optical radiation)																		
Electric arc welding, heavy gas cutting, plasma spraying and cutting, inert gas shielded arc welding, atomic hydrogen welding								*	*									
Laser radiation																		
Laser cutting, laser surgery, laser etching						*												
Electric arc flash																		
Electric installation, electric maintenance, troubleshooting of electric systems, disconnecting live electrical systems							*							*				*

Source: Z94.3.1-16 *Guideline for selection, Use and Care of Protective Eyewear*, Canadian Standards Association, 2016.

5.6 EXAMPLES BY CLASS

Examples of Class 1 — Spectacles



Class 1A
Spectacles with side protection



Class 1B
Spectacles with side and non-ionizing radiation protection

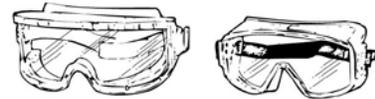
Examples of Class 2 — Goggles



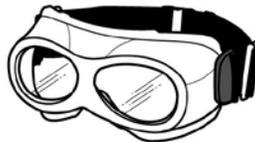
Class 2A
Direct ventilated goggles



Class 2B
Indirect ventilated goggles



Class 2C
Direct/non-ventilated goggles with non-ionizing radiation protection

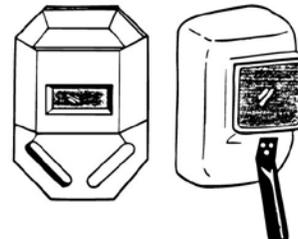


Class 2D and 2E Laser-protective goggles

Examples of Classes 3 and 4 — Welding helmets and hand shields



Class 3
Welding helmets



Class 4
Welding hand shields

Examples of Class 5 — Hoods



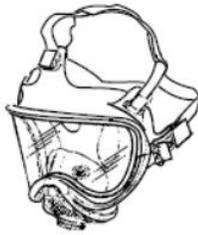
- Class 5A Hood with impact-resistant window
- Class 5B Hood for dust, splash, and abrasive materials protection
- Class 5C Hood with non-ionizing radiation protection
- Class 5D Hood for high-heat applications
- Class 5E Hood for electric arc protection

Examples of Class 6 — Face shields



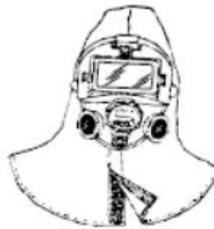
- Class 6A Face shield for impact and splash protection
- Class 6B Face shield for non-ionizing radiation protection
- Class 6C Face shield for high-heat application
- Class 6D Face shield for electric arc protection

Examples of Class 7 - Respirator facepieces



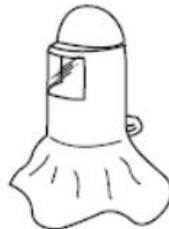
Class 7A

Respirator facepiece for impact and splash protection



Class 7B

Respirator facepiece for non-ionizing radiation protection



Class 7C

Respirator facepiece with loose-fitting hood or helmet



Class 7D

Respirator facepiece with loose-fitting hood or helmet for non-ionizing radiation protection

Source: Z94.3.1-16 *Guideline for Selection, Use and Care of Protective Eyewear*, Canadian Standards Association, 2016.

6 MAINTENANCE

Eye and face protection devices need maintenance.

- Clean your devices daily. Follow the manufacturer's instructions.
- Avoid rough handling that can scratch lenses. Scratches impair vision and can weaken lenses.
- Store your devices in a clean, dry place where they cannot fall or be stepped on. Keep them in a case when they are not being worn.
- Replace scratched, pitted, broken, bent or ill-fitting devices immediately. Damaged devices interfere with vision and do not provide protection.
- Replace damaged parts only with identical parts from the original manufacturer to ensure the same safety rating.
- Do not change or modify the protective device.

Source: *Safety Glasses and Face Protectors*, Canadian Centre for Occupational Health and Safety (CCOHS), 2017, www.ccohs.ca/oshanswers/prevention/ppe/glasses.html#_1_6

7 REGULATORY REQUIREMENTS

The Northwest Territories and Nunavut *Occupational Health and Safety Regulations* identify when to use PPE eye and face protection:

Occupational Health and Safety Regulations
Northwest Territories and Nunavut

Part 7 Personal Protective Equipment

Eye and Face Protection

- 97.** (1) If there is a risk of irritation or injury to the face or eyes of a worker from flying objects or particles, splashing liquids, molten metal or ultraviolet, visible or infrared radiation, an employer shall provide and require the worker to use an approved industrial eye protector or approved face protector to eliminate or reduce the risk.
- (2) An employer shall take all reasonable steps to ensure that a worker does not perform electric arc welding if another worker could be exposed to radiation from the arc, unless the other worker is using an approved industrial eye protector or is protected from the radiation by an approved screen.
- (3) A worker shall not perform electric arc welding if another worker could be exposed to radiation from the arc, unless the other worker is using an approved industrial eye protector or is protected from the radiation by an approved screen.
- (4) A worker who is required by these regulations to use an industrial eye protector or face protector shall not wear contact lenses.

Exposure to Hazardous Substances

102. If a worker is routinely exposed to a hazardous substance, an employer shall provide, and require the worker to use, protective clothing, gloves and eye wear or face shields that are adequate to prevent exposure of the worker's skin and mucous membranes to the hazardous substance.

Explosive-Actuated Fastening Tools

- 151.** (3) An employer shall ensure that a worker who operates an explosive-actuated fastening tool
- (c) uses an industrial eye or face protector that meets the requirements of Part 7

Part 10 Machine Safety -Grinding Machines

- 153.**(4) An employer shall ensure that a worker who operates a grinder
- (a) is provided with and uses the following personal protective equipment that meets the requirements of Part 7:

- (i) an industrial eye or face protector,
 - (ii) hand or arm protection; and
- (b) is instructed in the potential hazards and safe use of the grinder.

Eye Flushing Equipment

320. If there is a risk to the eyes of a worker from corrosive or other hazardous substances, an employer shall provide and maintain, at readily accessible locations, approved equipment to flush the eyes of the worker with lukewarm water or another appropriate liquid.

Exposure Limits to Ultraviolet Radiation

358. 4) If the spectral composition of the ultraviolet radiation referred to in subsection (3) is not known, the employer who requires or permits the use of the equipment shall ensure that the total radiant exposure of the worker's unprotected eyes or skin in a period of eight hours does not exceed 30 J/m².

Exposure Limits to Ultraviolet Radiation and Photosensitivity

359. (3) If an employer requires or permits the use of ultraviolet radiation equipment and knows that a worker shows inherited photosensitivity to ultraviolet radiation or is under treatment with a photosensitizing drug, the employer shall ensure that

- (b) the worker is issued with eye and skin protection that is specified by
 - (i) a medical professional, or
 - (ii) a safety officer.

Protection If Exposure Limits Cannot be Followed

360. If the exposure limits set out in section 358 and subsection 359(1) cannot be complied with, the employer shall issue to each occupational worker,

- (a) eye and skin protection that is specified by
 - (i) a medical professional, or
 - (ii) a safety officer; and
- (b) if required by a safety officer, an individual monitoring device to evaluate the exposure of the worker to ultraviolet radiation.

Cytotoxic Drugs

466. (6) A program developed under subsection (5) must include (d) details of engineering controls, work practices, hygiene practices and facilities, approved respiratory protective devices, approved eye or face protectors and other personal protective equipment and decontamination materials and equipment that are appropriate in the circumstances

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).

Code of Practice
PERSONAL PROTECTIVE EQUIPMENT
EYE AND FACE 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.