

Health & Safety Standard

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1 Purpose

The purpose of the Personal Protective Equipment standard is to establish minimum requirements for personal protective equipment (PPE) to eliminate or minimize the potential for occupational injury and illness.

2 Application

This standard applies to all employees and contractors. Service providers working or visiting a Cenovus worksite, are expected to have their own procedure that meets or exceeds the requirements in this standard.

3 Requirements

3.1 Hazard assessment and PPE selection

As per the Control of Work standard, a task risk assessment and/or field level hazard assessment shall be completed to ensure the appropriate PPE is selected, with considerations given to:

- work scope, location, and environment
- hazards associated with the task
- Safety Data Sheets (SDS)
- manufacturer's recommendations
- length of exposure to the hazards
- legislative and/or jurisdictional requirements and industry standards

3.2 Training

A worker shall receive training prior to their first use of PPE on the item's:

- correct use and proper fit
- limitations
- care, inspection, maintenance, and storage
- regulatory and jurisdictional requirements

3.3 Inspection, maintenance, and storage

PPE shall be:

- inspected for damage, defects, or modifications
- cleaned, inspected, maintained, and stored in accordance with the manufacturer's recommendations

3.4 Service life and disposal

PPE shall not be worn and be replaced immediately when it:

- is beyond the manufacturer's specified service life
- is damaged or showing signs of excessive wear
- has been exposed to a hazard beyond its protective properties
- is unable to perform its function as designed

Repairs to PPE shall follow manufacturer's recommendations. If the PPE is beyond repair, it shall be replaced and disposed of.

PPE shall not be modified unless approved by the manufacturer.

3.5 Regulatory and code compliance

Standards referenced shall be the most current versions, used in conjunction with applicable government acts and regulations. Where requirements of this standard conflict with jurisdictional requirements or other regulatory bodies, the most stringent shall apply.

• refer to section 4 for applicable standards

3.6 Head protection

Hard hats are mandatory for all workers and visitors attending Cenovus's worksites where there is a risk of head injury.

The hard hat shall:

- be a minimum Type 1, Class E helmet
- be inspected prior to each use
- not have structural modifications or painting
- not have items stored between the hard hat shell and suspension

The hard hat shall be worn:

- brim forward, unless:
 - o it is designed to be worn in reverse orientation
 - o the job or task requires upward visibility
 - its proper fit is affected when worn with other protective equipment, such as face shields, welding helmets, or respirators
- secured when riding a bicycle to avoid dislodgement, as per site-specific procedures and/or jurisdictional requirements
- without a baseball cap beneath it

Headwear accessories shall be worn so not to interfere with the fit, form, or function of the hard hat. Accessories worn under the hard hat, such as toques, welders' beanies, bandanas, or hoods, shall meet fire resistant (FR) requirements.

Manufacturer's recommendations for hard hats shall be followed for:

- placement for non-metallic stickers or reflective tape
- replacement of shell and components when showing excessive wear or when it has been subjected to impact or electrical shock

3.6.1 Welding helmets or shields

A welding helmet or shield shall be worn in combination with an approved hard hat if there is a risk of head injury to the head, unless:

- the welding helmet or shield is used by itself to complete a specific task, given the hard hat is immediately worn afterward
- alternative mitigations are considered if it is impractical for the worker to utilize the combination head gear

3.7 Eye protection

Safety or prescription safety glasses shall be used with the following conditions when there is a risk of eye injury or irritation:

- Safety glasses shall have permanent affixed or integrated side shields.
- Tinted safety glasses are acceptable for use, except in low light situations.
- Safety glasses shall be worn over prescription eyewear or obtain approved safety prescription eyewear. Note: Regular prescription glasses are not a substitute for safety glasses.
- Contact lenses are not allowed when there is a potential hazard to the eyes in the work environment, such as handling chemicals or exposure to arc flash.
- Appropriate task-specific or additional eye and face protection shall be assessed based on risk of potential eye injury or irritation.
- When a face shield is worn, safety glasses shall be worn under the face shield.
- Refer to the Cenovus or entity-specific occupational vision care (OVC) protective eyewear program to obtain prescription safety glasses for Cenovus employees or contractors where applicable.

3.8 Hearing protection

Hearing protection is required for all workers who work in high noise areas identified by the site. All hearing protection equipment used shall meet the following requirements within the Cenovus hearing conservation program:

- only CSA Class A or hearing protection equipment with a noise reduction rating with a minimum of 24 dB is permitted on Cenovus worksites
- double hearing protection is required in areas where dBA exceeds 105 for all business functions

3.9 Hand protection

If there is the risk of a worker's hand becoming injured or irritated, workers shall be fitted with the appropriate hand protection. Workers shall wear gloves where hazards exist, including but not limited to the potential for:

- abrasions
- cuts
- burns
- heat or chemical exposure
- electrical contact
- vibrations

The type of glove shall be determined during the task hazard assessment or field level hazard assessment (FLHA) based on the hazard and application.

3.10 Protective clothing

Workers shall wear protective clothing appropriate to the hazards at the worksite, and ensure that:

- outer garments completely cover the body, arms, and legs
- garments are worn in the appropriate manner, such as shirt tucked in, sleeves rolled down, buttons fastened, and zippers closed
- garments offer minimal interference or hindrance to perform the task

3.10.1 Flame resistant protective clothing

Flame resistant (FR) clothing shall be worn as the outer layer when conducting work in a hazardous location and shall at a minimum:

- be constructed of flame-resistant material, with a minimum fabric weight of:
 - North America: 6 oz/yd²
 - Asia Pacific: 4.5 oz/yd²
- provide protection against flash fire for a total body burn of less than 25%
- have an arc rating of 5.8 Cal/cm² Note: Refer to the *Cenovus Electrical Safety Standard* for tasks that require protective clothing with a higher arc rating
- have primary closure systems, such as zippers and snaps, that will continue to function after a flash fire
- include a flame retardant accessory garment or special PPE worn over flame resistant clothing when in a hazardous location

3.10.2 Rainwear and disposable protective clothing

When selecting rainwear and disposable protective clothing, consideration shall be given to:

- nature of hazard and source of contamination e.g., flash fire, asbestos, refractory ceramic fibers, lead, NORM's, etc.
- provide adequate protection to the worker
- manufacturer's specifications to verify protection
- disposal requirements

If flash fire hazard is risk ranked low the fire-resistant rainwear and fire-resistant disposable protective clothing is not required.

3.10.3 Undergarments

Undergarments or base layers shall be worn under flame resistant protective outerwear to provide a buffer zone for heat dissipation in a flash fire situation. Base layers shall consist of 100% natural materials that don't melt during heat exposure or constructed with flame-resistant material.

Synthetic materials (nylon and polyester) are prohibited as undergarments due to melting properties in flash fire situations.

The use of hooded garments i.e., hoodies shall be determined by site specific requirements.

3.10.4 High visibility garments

Outer garments shall have high visibility striping and bands permanently attached to the clothing. When outerwear is worn in a hazardous location, the high visibility striping and bands shall be:

- constructed of flame-resistant material
- in a single horizontal stripe around torso and limbs, double vertical stripes on chest, and continuous over the shoulder with an X on the back

A vest with striping and bands that has a visibility rating appropriate to the scope of work is allowed.

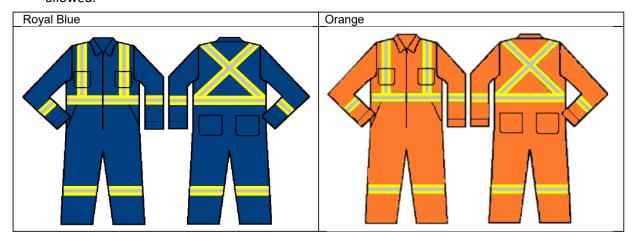


Figure 1: High Visibility Striping Samples

3.10.5 Leg protectors

Chainsaw operators shall wear leg protectors as per manufacturer's recommendations when using a chainsaw. Note: In British Columbia, leg protection devices shall meet the standards of WorkSafe *BC Standard – Leg Protective Devices*.

3.11 Foot protection

Foot protection is required when there is a risk of injury to the foot.

At a minimum, all safety footwear shall:

- provide above-the-ankle support
- have soles constructed of non-slip material with oil, puncture, and heat resistance
- provide impact protection, such as hard-toed
- have a defined heel, except in circumstances where the heel creates additional hazards, such as ironworker boots
- be adequately secured
- not have ventilation holes below the ankle bone
- have a visible CSA approved green triangle and/or Ohm label attached where applicable

3.11.1 Anti-slip traction aids

In locations where slip hazards are identified, anti-slip traction aids shall be considered as part of an overall slip prevention program.

Anti-slip traction aids shall be:

- worn as per manufacturer's recommendations
- appropriate to the task, work environment and ground conditions
- spark resistant at hazardous locations where required

3.12 Flotation Devices

A personal flotation device (PFD) or life jacket shall meet the regulatory jurisdictional requirements and shall be intrinsically buoyant when working near bodies of water and/or where a danger of drowning exists.

If there is a potential for flash fire, the flotation device shall be constructed of flame-resistant materials.

3.13 Jewelry and entanglement risks

Jewelry shall not interfere with the effective use of PPE or create a hazard. When working around rotating equipment, workers shall not wear jewelry or loose-fitting clothing and shall secure long hair. The wearing of gloves shall also be considered when working around rotating equipment where a gloved hand may get caught.

4 Related information

4.1 Terms and abbreviations

Term	Definitions
ANSI	American National Safety Institute
accessory garment	protective clothing worn in addition to primary protective clothing that includes, but is not limited to, high visibility vests, jackets, aprons, lab coats, smocks, rain gear, and disposable coveralls
ASTM	American Society for Testing and Materials
CGSB	Canadian General Standards Board
CSA	Canadian Standards Association
dB	decibel(s)
fire- or flame-resistant material	 deters fire from spreading and resists ignition will not continue to burn once the fire source is removed and will self-extinguish
fire retardant material	is treated or coated with a chemical substance to slow down combustion and often prevents fire from spreading
hazardous location	worksite where arc flash, flammable gases, vapours, or liquids exist, are produced, or used in the execution of work activities
ISO	International Organization for Standardization
natural fibre	natural fibers like cotton or wool that will not melt when exposed to heat
NFPA	National Fire Protection Association
Workers (Workforce)	Employees, service providers, contractors, and subcontractors

4.2 References

Table 1: Internal governing references

Document title or link	Relevance
COIMS Standard - Safe Control of Work	Follow process to select appropriate PPE
Industrial Hygiene Standard	
Electrical Safety Standard	

Table 2: Other references

Document title or tool name	Relevance
Electrical Safety	Cenovus Electrical Safety SharePoint
Cenovus: Fall Protection Standard Husky: Work at Height Technical Standard	Links to legacy Fall Protection standards
Get a Grip Program	Energy Safety Canada's website for the Get a Grip Program
Industrial Hygiene and Occupational Health	IH&OH SharePoint: Includes IH Standard and programs
Personal Protective Equipment	Helix PPE SharePoint
Respiratory Protective Equipment (RPE) Program	Cenovus RPE program SharePoint
SDS Binders	Cenovus SDS Binders Database

Table 3: Head protection standards

Standard number	Standard name
CAN/CSA-Z94.1	Industrial Protective Headwear
ANSI Z89.1	American National Standard for Industrial Head Protection
CAN/CSA-D113.2-M89	Cycling Helmets
ASTM Standard F1447	Standard Specification for Helmets Used in Recreational Bicycling or Roller Skating

Table 4: Eye protection standards

Standard number	Standard name
CSA Z94.3	Eye and Face Protectors
ANSI Z87.1	Occupational and Educational Personal Eye and Face Protection

Table 5: Hearing protection standards

Standard number	Standard name
CAN/CSA Z94.2	Hearing Protection Devices –Performance, Selection, Care and Use
ANSI S3.19	Measurement of Real–Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs The following title for ANSI S3.19 is from 1974, if the title has changed more recently to what you wrote, ignore my comment: Method for Measurement of Real-Ear Protection of Hearing Protectors and Physical Attenuation of Earmuffs.

Table 6: Hand protection standards

Standard number	Standard name
ANSI/ISEA 105	American National Standard for Hand Protection Classification
EN 388	European Standard for Protection Gloves Against Mechanical Risks

Table 7: Protective clothing standards

Standard number	Standard name
ANSI/ISEA 107	High-Visibility Safety Apparel and Headwear
ASTM F1506	Standard Performance Specification for Flame Resistant and Arc rated textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards
ASTM 1891	Standard specification for Arc Flash and Flame-resistant Rainwear
ASTM F1930	Standard Test method for evaluation of Flame-resistant clothing for protection against flash fire simulations using an instrumented Manikin
ASTM F 2733	Standard Specification for Flame Resistant Rainwear for Protection against Flame Hazards
CSA Z462 Standard	Electrical Safety in the Workplace
CGSB 155.20	Work wear for Protection against Hydrocarbon Flash
CAN/CGSB-155.21	Recommended Practices for the provision and use of work wear for protection against hydrocarbon flash fires
CSA Z96	High Visibility Safety Apparel
NFPA 70E	Standard for Electrical Safety in the Workplace
NFPA 2112	Standard on Flame-Resistant Garments for Protection of Industrial Personnel against Flash Fire
NFPA 2113-2012 Edition	Standard on selection, care, use, and maintenance of flame-resistant garments for protection of industrial personnel against flash fires

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Table 8: Protective footwear standards

Standard number	Standard name
ASTM F-2412	Standard Test Methods for Foot Protection
ASTM Standard F2413	Specification for Performance Requirements for Protective Footwear
CSA Standard Z195	Protective Footwear

Table 9: Flotation device standards

Standard number	Standard name
CAN/CGSB - 65.7 0	Life Jackets
CAN/CGSB 65.11- M88	Personal Flotation Devices
	U.S. Coast Guard Approved (USCG)
ISO 12402	Personal Flotation Devices