

## Personal Protective Equipment (PPE) Practice

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### 1.0 Purpose

The Personal Protective Equipment (PPE) Practice defines the minimum regulatory requirements and Cenovus-specific requirements for PPE that includes hard hats, hand protection, body and limb protection, eye protection, hearing protection, respiratory protective equipment (RPE), fall protection and electrical arc flash equipment.

### 2.0 Application

This PPE Practice applies to all employees, contractors, and service providers working at Cenovus worksites.

### 3.0 Head Protection

#### 3.1 Hard Hat

The use of hard hats is mandatory for all workers and visitors attending Cenovus worksites where there is a risk of head injury. This includes office, warehouse, and maintenance areas.

##### 3.1.1 Minimum Requirements

- Type I, Class E helmet that meets or exceeds the following:
  - CAN/CSA-Z94.1-05 (*Industrial Protective Headwear*)
  - ANSI Z89.1-2003 (*American National Standard for Industrial Head Protection*)
- Metal and Stetson-type hard hats are not allowed
- No painting of or structural modifications are allowed on the shell of the hard hat
- Any decals applied must be compatible with the surface material and be known not to affect the integrity of the hard hat shell
- Replace hard hats that have taken a blow, an electrical shock, or are more than five years old
- Hard hat suspensions should be inspected regularly and replaced when worn
- No items are to be stored between the hard hat shell and suspension
- Only fire-resistant hard hat liners or balaclavas are permitted to be worn under a hard hat, all other items (base-ball caps, skull caps, etc) are prohibited as they can effect the overall performance of a hard hat

#### 3.2 All-terrain Vehicles and Snow Vehicles

All workers who are required to operate an all-terrain vehicle or snow vehicle as a part of their job function are required to wear an approved safety helmet whenever the vehicle is in operation.

##### 3.2.1 Minimum Requirements

- The helmet must have meet or exceed the following standard as well as being conspicuously marked stating it meets or exceed such standard:
  - CAN3-D230-M85 (*Protective Headgear in Motor Vehicle Applications*)
  - U.S.A. Federal Motor Vehicle Standard FMVSS 218 (*Motorcycle helmets*)
  - BSI Standard BS 6658: 05 (*Specification for Protective Helmets for Vehicle Users*)

- Snell Memorial Foundation Standard M2000 or 2005
- Replacement of the helmet must be done immediately if:
  - There was a fall that resulted in an impact to the helmet
  - The helmet fits looser than it did when it was purchased due to frequent use
  - There is physical damage to the helmet shell

## **4.0 Eye Protection**

### **4.1 Safety Glasses/Face Shields**

The use of safety glasses and/or a face shield is mandatory for all workers and visitors at a Cenovus worksite where there is a risk of the eye being injured or irritated.

- All workplace eye protection is required to meet or exceed the following standard:
  - CSA Z94.3-07 (*Eye and Face Protectors*)

### **4.2 Prescription Safety Eyewear**

All workers who are required to wear prescription eyewear are required to either wear CSA approved safety glasses over top of their prescription eyewear or obtain prescription safety eyewear.

- All workplace prescription eye protection is required to meet or exceed the following standard:
  - CSA Z94.3-07 (*Eye and Face Protectors*)

#### **4.2.1 Contact Lenses**

All workers who may be wearing contact lenses that could pose a potential hazard to their eyes in the work environment are required to remove their contact lenses. The contact lenses can be replaced with either safety eyewear or prescription safety wear.

#### **4.2.2 Occupational Vision Care Program (OVC)**

Cenovus's protective eyewear program is a mandatory program offered to all employees who wear prescription eyewear and are required to wear protective eyewear as a part of their work function. Employees may obtain prescription safety eyewear through the Alberta or Saskatchewan OVC program.

- For more information on the process, please visit the following
  - Alberta OVC procedure
  - Saskatchewan OVC procedure
- All workplace prescription eye protection is required to meet or exceed the following standard:
  - CSA Z94.3-07 (*Eye and Face Protectors*)

### **4.3 Task Specific Eye Protection**

Cenovus will provide speciality equipment for tasks which require enhanced eye and face protection, such as welding, grinding, chipping, hammering, handling chemicals, pressure washing, and other tasks where there is potential for gases, liquids, or objects to strike the eye.

## 5.0 Clothing/Workwear

All workers and visitors at a Cenovus worksite are required to dress in a manner which minimizes the severity of or eliminates injuries. The clothing must be appropriate to the hazards at the work site, such as chemical exposure, rotating equipment, catch/pinch points, abrasions, heat sources, frostbite, flash fires, explosive atmospheres and arc flashover.

Garments must meet the minimum following expectations:

- All outer garments must be long sleeve and full leg length to ensure complete coverage of the arms, torso and legs
- All outer garments must have high visibility stripes/bands permanently attached to the garment. If permanently attached reflective striping is not available, reflective vests or jackets shall be used.
- Torn or ragged clothing must not be worn
- Dirty or soiled clothing that could be rendered ineffective due to contamination with a destructive or toxic substance must be cleaned, decontaminated or promptly replaced with a clean garment

### 5.1 Flame-Resistant and Arc Flash Protective Clothing

#### 5.1.1 General

Cenovus staff and service providers are required to wear flame-resistant (FR) or arc rated (AR) garments as the outer most layer of clothing when conducting:

- work at a live operational worksite (i.e. brownfield sites; drilling and production sites) where:
  - flammable gases, vapours or liquids exist, are produced, or are used in the execution of work activities
  - electrical circuits or conductors are energized and arc flash hazardous conditions exist
- hot work at any worksite where a flash fire may occur
- electrical work at any worksite where an electrical arc flash may occur

Undergarments must be worn under flame-resistant or arc flash protective outerwear. All undergarments worn beneath flame-resistant or arc flash protective outerwear must be made of 100% natural materials such as wool or cotton or must be constructed of flame-resistant materials. Synthetic materials such as nylon and polyester are absolutely prohibited to be worn under flame-resistant or arc flash protective.

Garment materials which have a high potential to produce a static electric spark must not be worn in environments where a flash fire hazard may exist.

#### 5.1.2 Flame-Resistant Clothing

All flame-resistant clothing (not including rainwear or speciality arc flash protective garments) worn on a Cenovus worksites must:

- Meet the requirements of:
  - NFPA 2112-2007 *Standard on Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire*
  - CAN/CGSB-155.20-2000 *Workwear for Protection Against Hydrocarbon Flash Fire*
  - CSA Z96-09 *High Visibility Safety Apparel Standard (FR rated CSA Class 1, Level 2 side-by-side stripes/bands)*
- Be constructed of a minimum six ounce fabric weight

- Have a primary closure systems (e.g. zippers, snaps) that will continue to function after a flash fire
- Be comfortable and not tight fitting. There should be a layer of air between the outer fabric and undergarment to provide additional insulation against thermal exposure

All Cenovus provided coveralls will meet the requirements of this section and the following requirements:

- The garment will be constructed of core materials such as DuPont® Nomex IIIA, Nomex Multi-Hazard Protection (MHP), Westex UltraSoft or GlenGuard FR or other equally effective, certified and approved materials
- The garment will be produced in Cenovus's standard colour – Royal Blue
- Cenovus crest and name bar affixed to the garment
- The garment must contain retro-reflective striping as per CSA Z96.02-09 Class 1 high-visibility and flame-resistant application requirements

### 5.1.3 Electrical Arc Flash Protective Clothing

For detailed information on electrical arc flash protective requirements, please refer to CENP126 Electrical Work Practice Brochure.

### 5.1.4 Flame-Resistant and Arc Flash Protective Rainwear

All flame-resistant or arc flash protective rainwear worn on a Cenovus worksites must comply with the following standards:

- ASTM F2733-09 *Standard Specification for Flame Resistant Rainwear for Protection Against Flame Hazards* (Protection against flash fire only)  
or
- ASTM F1891-12 *Standard Specification for Arc and Flame Resistant Rainwear* (Protection against electrical arc flashover only)  
and
- CSA Z96-09 High Visibility Safety Apparel Standard (Class 1 stripe/band compliance and flame-resistant retroreflective requirements)

### 5.1.5 Exceptions

- In situations where time constraints, short notice, or other factors negate using the Cenovus supplied FR clothing available on The Store, FR clothing may be purchased locally providing that it meets the requirements of this practice
- Welders must wear flame-resistant clothing in addition to appropriate welding garments and accessories
- Accessory garments that are worn over primary flame-resistant clothing, such as high visibility vests, aprons, lab coats, smocks or disposable coveralls (this does not include rain suits or chemical suits) must be designed, as a minimum, to be flame-retardant. Materials that are inherently flame-resistant are still preferred, but flame-retardant treated materials that are manufactured to be a secondary flame-resistant garment are permitted.

## 5.2 High Visibility Vests/Jackets

A high visibility garment is required to be worn in work area's where there is movement of vehicle or equipment.

If this garment is being worn within a Cenovus worksite that is considered a live operational worksite (see section 5.1 for definition), the vest/jacket material, including the high visibility striping, must be constructed of flame-resistant material that meets the following standards:

- CSA Z96-09 (*High Visibility Safety Apparel Garment Classes and Illustrations*) – Class 1, 2, or 3
- NFPA 2112-2007 (*Standard on Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire*)
- CAN/CGSB-155.20-2000 (*Workwear for Protection Against Hydrocarbon Flash Fire*)

### **5.3 Hoods (Hooded Sweatshirts, Jackets, Parkas)**

Hooded clothing may be permitted on Cenovus worksites provided that the work scope and hazard assessment indicate it is safe to wear them. The hazards to consider include (but are not limited to): entanglement in rotating equipment, flammability (see section 5.1), visibility (mobile equipment), and interference with other safety equipment (hard hats). If the hooded clothing cannot be modified to address the hazards (detachable hoods, tucking into clothing, removal of strings, etc.) then it may need to be removed from the worksite.

### **5.4 Winter Wear**

All winter wear used for flash fire or arc flash protection must meet the requirements of section 5.1.

## **6.0 Foot Protection**

### **6.1 Protective Footwear**

The use of safety footwear is mandatory for Cenovus employees and contractors while attending a Cenovus worksite. Depending on the hazards present at the worksite, the appropriate footwear that best suites the workplace hazards must be selected.

At a minimum all footwear must meet the following requirements:

- Protective footwear must meet:
  - CAN/CSA Z195-02 (*Protective Footwear*)
- The footwear must have a visible green triangular label and the Omega symbol attached in accordance with the CSA standard
- Footwear should have at a minimum, a 15cm (6inch) boot height to protect and support the ankle
- Soles will be acid and oil resistant
- No ventilation holes will be allows below the ankle bone

#### **6.1.1 Exceptions**

In work environments (such as geophysical, land surveying, etc) where it is not practical to have workers wear footwear that meets the requirements of sub-section 6.1, the workers must ensure that their foot wear meets the following requirements:

- There is adequate support to the foot to help prevent ankle, foot or other similar injuries
- The sole provides adequate traction for the work environment

## **7.0 Hearing Protection**

Hearing protection is required for all Cenovus employees and contractors who work in areas with a noise level that exceeds 85 dBA in Alberta or 80 dBA in Saskatchewan

All hearing protection equipment used must meet the following requirements:

- The hearing protection equipment must meet:
  - CAN/CSA Z94.2-02 (*Hearing Protection Devices – Performance, Selection, Care and Use*)

- The equipment is appropriate to the class and grade as outlined within the applicable provincial legislation

## 8.0 Hand Protection

If there is the risk of a worker's hand becoming injured on the worksite, workers must be fitted with the appropriate hand protection. Depending on the level of protection needed, some hand protection items may not have a CSA rating and therefore the hand protection should be chosen based on the application.

### 8.1 Leather Glove

A leather glove is a durable and flexible material commonly used for the reducing the risk of abrasion. The degree of protection depends on the grade of leather used to manufacture the glove.

### 8.2 Cotton Glove

Cotton gloves are generally used as an insulator for mild low and high temperatures. The tasks appropriate for a cotton glove depends on the gauge of fabric used as well as additional material added to the glove, such as Kevlar®.

### 8.3 Chemical Resistant Glove

Chemical resistant gloves provide protection against specific chemicals. A chemical resistant glove is not resistant to all chemicals. The manufacturer specifications should also be referenced and reviewed in conjunction with the products material safety data sheet when determining a suitable glove type.

### 8.4 Electrical Work Glove

For detailed information on the electrical work personal protective equipment requirements, please reference CENP126 Electrical Work Practice Brochure.

## 9.0 Respiratory Protection Equipment

The selection of appropriate respiratory protection equipment (RPE) must be determined by a suitable hazard assessment. All RPE must meet the following standard:

- CAN/CSA Z94.4-02 (*Selection, Use and Care of Respirators*)

For more information on the selection and usage of RPE, please reference CEN-EHS010 Respiratory Protection Code of Practice.

## 10.0 Fall Protection

All fall protection equipment being used on a Cenovus worksite must meet the following requirements:

Equipment Type	Certification/Requirement
Safety Harness	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.10-06 (<i>Full Body Harness</i>)</li> <li>• Certification must be clearly labelled as such on the harness</li> </ul>
Safety Belts	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.1-05 (<i>Body Belts and Saddles for Work Positioning and Travel Restraint</i>)</li> </ul>
Lanyard	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.11-05 (<i>Energy Absorbers and Lanyards</i>)</li> <li>• Free fall distance cannot exceed 1.2 metres</li> </ul>
Shock Absorbing Lanyard	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.11-05 (<i>Energy Absorbers and Lanyards</i>)</li> <li>• Free fall must be limited to 2 metres or the limit specified in the manufacturer's instructions, whichever is less</li> </ul>

Lanyard Snap Hooks	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.12-01 (<i>Connecting Components for Personal Fall Arrest Systems</i>)</li> <li>• Must be of the locking type, requiring two separate actions to open the hook</li> </ul>
Carabiners	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.12-01 (<i>Connecting Components for Personal Fall Arrest Systems</i>)</li> <li>• Must be self locking and require two distinct and separate actions to open gate mechanism</li> <li>• Constructed of steel</li> <li>• Must have a load capacity of 22.2 kilonewtons (kN) and identified as such</li> </ul>
Anchor Slings	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.12-01 (<i>Connecting Components for Personal Fall Arrest Systems</i>)</li> </ul>
Vertical Lifelines	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.12-01 (<i>Connecting Components for Personal Fall Arrest Systems</i>)</li> <li>• Must have a breaking strength specified by the manufacturer or at least 27 kilonewtons (kN) or as required by applicable legislation</li> <li>• Must not extend to within 1.2 metres of the ground or safe work surface</li> </ul>
Flexible and Rigid Horizontal Lifelines	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.13-04 (<i>Flexible Horizontal Lifeline Systems</i>) or CAN/CSA Z259.16-04 (<i>Design of Active Fall Protection Systems</i>)</li> <li>• Prior to use, the lifeline must be inspected and certified for use by a professional engineer or a designate, or the manufacturer</li> </ul>
Fall Arrestors	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.2.1-98 (<i>Fall Arrestors, Vertical Lifelines, and Rails</i>)</li> </ul>
Self Retracting Device	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.2.2-98 (<i>Self Restricting Devices for Personal Fall-Arrest Systems</i>)</li> </ul>
Descent Control Device	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.2.3-99 (<i>Descent Control Device</i>)</li> </ul>
Anchors	<ul style="list-style-type: none"> <li>• CAN/CSA Z259.16-04 (<i>Design of Active Fall Protection Systems</i>)</li> <li>• Must be installed, used, and removed in accordance with manufacture specifications and/or the specification certified by a professional engineer</li> </ul>

For more information on the Cenovus fall protection requirements, please reference CEN-EHS038 Fall Protection Practice.

## 11.0 Electrical PPE

The requirement for work on energized electrical equipment is referenced in CENP126 Electrical Work Practice Brochure.

## 12.0 Personal Protective Equipment Purchasing

The Store should be used as the primary source for personal protective equipment as the product contained within are offered at a competitive price and meet the requirements of this standard. For items that are not offered on The Store, local sourcing should be done as per the Functional Team's policy while ensuring any purchased goods meet the requirements of this standard.

Employee expense or reimbursement amounts for personal protective equipment are at the discretion of the Functional Team.

## 13.0 Training

All Cenovus staff are to be adequately trained in the usage, limitations, and maintenance of any personal protective equipment items assigned while working at Cenovus.

## 14.0 Governing and Reference Documents

### 14.1 Internal Governance

Document Type	Governance Documents
Policy	Corporate Responsibility Policy
Framework	Cenovus Operations Management System (COMS)
Policy	Enterprise Risk Management Policy
Regulatory	Alberta OHS Code (2009) – Part 2, Part 9, Part 18
Regulatory	Saskatchewan OHS Regulation – Part 3, Part 7, Part 8

### 14.2 Internal References

Document Ref. #	Internal Reference Documents
CEN-EHS019	Hazard Assessment and Control Practice
CEN-EHS022	Risk, Risk Assessment and Risk Management Description
CEN-EHS038	Fall Protection Practice
CENP126	Electrical Work Practice Brochure
CEN-EHS010	Respiratory Protection Equipment Code of Practice
CEN-EHS1972	Alberta Occupational Vision Care Procedure
CEN-EHS1973	Saskatchewan Occupational Vision Care Procedure

### 14.3 External References

Document Origin	External Reference Documents
CSA	CAN/CSA-Z94.1-05 ( <i>Industrial Protective Headwear</i> )
ANSI	ANSI Z89.1-2003 ( <i>American National Standard for Industrial Head Protection</i> )
US Federal Motor Vehicle Standard	FMVSS 218 ( <i>Motorcycle helmets</i> )
BSI Standard	BS 6658: 05 ( <i>Specification for Protective Helmets for Vehicle Users</i> )
Snell Memorial Foundation	Standard M2000 or 2005
CSA	CSA Z94.3-07 ( <i>Eye and Face Protectors</i> )
NFPA	NFPA 2112-2007( <i>Standard on Flame Resistant Garments for Protection of Industrial Personnel Against Flash Fire</i> )
CSA	CAN/CGSB-155.20-2000 ( <i>Workwear for Protection Against Hydrocarbon Flash Fire</i> )
CSA	CEN/CGSB-155.21-2000 ( <i>Recommended Practices for the Provision and Use of Workwear for Protection Against Hydrocarbon Flash Fire</i> )
CSA	CSA Z96-02 ( <i>High Visibility Safety Apparel Garment Classes and Illustrations</i> )
ASTM	ASTM F2733-09 ( <i>Standard Specification for Flame Resistant Rainwear for Protection Against Flame Hazards</i> )



Document Origin	External Reference Documents
ASTM	ASTM F1891-12 ( <i>Standard Specification for Arc and Flame Resistant Rainwear</i> )
CSA	CAN/CSA Z195-02 ( <i>Protective Footwear</i> )
CSA	CAN/CSA Z94.2-02 ( <i>Hearing Protection Devices – Performance, Selection, Care and Use</i> )
CSA	CAN/CSA Z94.4-02 ( <i>Selection, Use and Care of Respirators</i> )
CSA	CAN/CSA Z259.10-06 ( <i>Full Body Harness</i> )
CSA	CAN/CSA Z259.1-05 ( <i>Body Belts and Saddles for Work Positioning and Travel Restraint</i> )
CSA	CAN/CSA Z259.11-05 ( <i>Energy Absorbers and Lanyards</i> )
CSA	CAN/CSA Z259.12-01 ( <i>Connecting Components for Personal Fall Arrest Systems</i> )
CSA	CAN/CSA Z259.13-04 ( <i>Flexible Horizontal Lifeline Systems</i> )
CSA	CAN/CSA Z259.2.1-98 ( <i>Fall Arrestors, Vertical Lifelines, and Rails</i> )
CSA	CAN/CSA Z259.2.2-98 ( <i>Self Restricting Devices for Personal Fall-Arrest Systems</i> )
CSA	CAN/CSA Z259.2.3-99 ( <i>Descent Control Device</i> )
CSA	CAN/CSA Z259.16-04 ( <i>Design of Active Fall Protection Systems</i> )

## 15.0 Change Management

Proposed changes to this practice can be directed to EH&S Document Management

## 16.0 Definitions and Acronyms

Definitions and acronyms for safety documents are described in the link below:

Genovus CEN-EHS243, Definitions and Acronyms

**ANSI** – American National Safety Institute

**ASTM** – American Society for Testing and Materials

**CGSB** – Canadian General Standards Board

**CSA** – Canadian Standards Association

**Fire or Flame Resistant** – Material that deters fire from spreading but also resists ignition. Fire resistant material will not continue to burn once the fire source is removed and the material will self extinguish.

**Fire Retardant** – Material that is treated or coated with a chemical substance to slow down combustion and often prevent fire from spreading.

**NFPA** – National Fire Protection Association