# Personal Protective Equipment Table of Content

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# 6. PERSONAL PROTECTION EQUIPMENT

# PERSONAL PROTECTIVE EQUIPMENT (PPE) POLICY

The use of PPE and clothing is an important requirement for the prevention of injuries and reducing our employee's injury risk exposure. PPE is the final line of defense in a series of actions to protect our employees from hazards. PPE is to be used in conjunction with the hazard reduction and control measures detailed in this chapter of the HSE Program manual.

Our company will make all required PPE available to employees. Employees will receive training in the use, care, maintenance, storage of the PPE and clothing issued to them. All PPE and clothing will be in good condition and maintained according to manufacturer's instructions and applicable standards. PPE and clothing issued will be of good quality and will meet the applicable regulatory standards for type and use.

No PPE or clothing will be modified or changed contrary to the manufacturer's specifications or applicable standards. Damaged or unserviceable PPE will be removed from service immediately and tagged "OUT OF SERVICE" or discarded. Any PPE so tagged will not be returned until repaired and inspected by a qualified person.

\*The safety information in this policy does not take precedence over O.H &S regulations and CSA standards. All employees should be familiar with the O.H. &S Act, Code and Regulations.

# **1. PERSONAL PROTECTIVE EQUIPMENT:**

The Workplace Health and Safety Regulations state that an employer shall take reasonable measures to reduce hazards to a level where personal protective equipment would not be necessary. However, during some work operations conducted by Canadian Road Builders Inc. it may be impractical or impossible to eliminate all workplace hazards, therefore personal protective equipment is required by all employees performing jobs for Canadian Road Builders Inc.

This section of the safety program addresses the types of personal protective equipment acceptable for use by Canadian Road Builders Inc. employees. This will be considered a minimum standard:

- Protective Clothing (Shirt with sleeves & Long Pants)
- High visibility Clothing/Vest (Class2-3)
- Head Protection: Hard hats when in field, Bump caps when in shops
- Eye Protection: Safety glasses when required or face shield
- Foot Protection: CSA Steel toe boots with 6" ankle support when in the field
- Hearing Protection: Ear plugs or muffs when working in areas over 85dBA
- Respiratory protection (if required)
- Hand protection: Any work near hot materials requires special arm protectors to be worn
- Night work: extra reflective articles to be more visible. E.g. reflective arm & leg bands, and a hard hat with reflective materials

It is not the intention of this safety program to outline specific personal protection equipment for all situations. The ultimate responsibility of selecting suitable personal protective equipment lies with the Superintendents/Foreman and the individual worker based on the hazard assessment conducted.

Consultation with an S.D.S. is suggested to determine specific personal protective equipment and also work procedures when working with controlled products.

# 2. PROTECTIVE CLOTHING: Refer to Personal Protection Poster at end of Chapter for further Information

Canadian Road Builders Inc. will ensure that whenever an employee is in potential danger from physical, chemical and/or biological hazards, the employee will wear suitable protective clothing to protect his body from injury. Information about specific protection from chemicals can be obtained from the respective chemical Safety Data Sheets (S.D.S.) section 8.

For protection from cold temperatures, employees are recommended to wear layered clothing that can be removed or added as required.

Long sleeved shirts or coveralls should be worn at all times for protection from sparks, spatter, ultra-violet light, scratches, insects, or excessive dirt when supplied.

Baggy, loose or torn clothing will not be permitted on a worksite. This increases the chances of snagging protruding objects, moving machinery, etc.

# High Visibility Clothing/Vest Refer to Personal Protection Poster at end of Chapter for further information

Canadian Road Builders Inc. will ensure all workers wear a class 2-3 reflective vest or clothing when on a company work site. It must be clean and have no tears or rips on it. If at any time there is a need for a new one, one will be provided by the company as soon as reasonably possible.

# **Clothing Selection**

Workers involved on worksites or in operations that have been classed as having a fire and explosion hazard will be required to wear the following clothing.

Outer Clothing that is inherently non-flammable and does not melt when exposed to heat. Material that does not cause a build-up of static electricity.

Examples: Cotton Denim 50/50 Cotton/Polyester

**NOTE:** Nylon and 100% Polyester clothing will not be acceptable.

# 3. GLOVES

Gloves are required to provide hand protection for the employees. Ensure gloves are inspected for defects, are a proper fit and are the right style for task being performed before using.

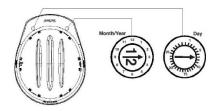
Specialized gloves and arm protectors will be required to protect the employee against the effects of chemicals, heat and cold, sharp objects, electrical shock or abrasions.

Information on the type of hand protection required to prevent chemical exposure can be found in the Safety Data Sheet for the specific chemical.

# 4. HEAD PROTECTION:

All employees, visitors and sub-contractors will be required to wear head protection at worksites with overhead hazards as required by OH&S regulation and as specified by client.

The basic type of head protection will be a CSA STANDARD CAN/CSA-Z94.1-05 or ANSI standard Z89.1-2003. The hard hat must also be with in the 5 year so manufactures date.



#### PROTECTIVE HEADWEAR INSPECTION AND USE PROCEDURES

- 1. Inspect the shell and suspension for cracks, dirt, oil, grease and/or missing parts before wearing. The suspension should be adjusted to provide a 32mm (1.25 inch) gap between the head and the shell.
- 2. Wear the hard hat squarely on the head with the peak to the front.
- 3. Do not wear a hard hat on top of other headgear unless the headgear is designed to be worn under a hard hat.
- 4. Do not paint or place stickers on the shell of the hard hat unless designed for such use.
- 5. Do not drill holes in the shell of the hard hat. Holes can weaken the shell and destroy the dielectric properties.
- 6. Do not place the hard hat in the back window of a vehicle. Sunlight and high heat may affect the shell. In an accident, the hard hat may become a dangerous missile.

#### Hard hats (and bump caps) are not required to be worn;

- 1 Inside a vehicle that provided protection from falling objects
- 2 Inside administrative offices
- 3 Inside fully enclosed labs

#### Bump Caps

Bump caps are to be used by light and heavy-duty mechanics in shops when doing repairs. It is important to note that bump caps do not meet the standard (CSA or ANSI) for head protection and are therefore not an acceptable replacement for safety headwear when working with overhead hazards. Workers in the shop can utilize bump caps only when the danger of injury is limited to the worker's head striking a stationary object.

# **5. EYE PROTECTION:**

All employees of Canadian Road Builders Inc. will be required to wear the following eye protection at worksites that have work activities of grinding, chipping, welding, working with chemicals or any other similar activities.

# Safety glasses

- Frames and lenses must have a CSA approval. Prescription lenses must have a certified impact resistance and be fitted into safety frames with a lip that prevents the lens from being pushed into the eye. Another option is to wear safety glasses that fit over top of prescription glasses.
- Permanently tinted lenses (sunglasses) are not permitted when working or when operating a motorized vehicle at night.

Other types of eye protection that may be required on the job sites include:

• Eye protection for welding operations shall meet the requirements of CSA Standard Z94.3 and shall bear some permanent, distinctive marking as appropriate to identify the manufacturer, shade number and whether the lenses, plates or glasses were treated for impact resistance.

NOTE: Contact lenses should not be worn by welders and welding personnel because foreign bodies in the eye may cause excessive irritation. Canadian Road Builders Inc. requests that workers wearing contact lenses alert other workers and/or notify their supervisor.

# **Goggles**

Goggles are designed to fit tightly around the entire eye socket to prevent materials from entering the eye from the sides as well as the front of the eye. Goggles are designed for protection against dusts, chemical splashes, excessive light and low impacts.

# \*Face-shields

Face-shields are designed to protect the soft tissues of the face and neck from radiation, dusts and chemical splashes and flying material. Face-shields are often used in conjunction with safety glasses and goggles. Face-shields are NOT specifically designed for eye protection and should not be used as a replacement for safety glasses or goggles. For welding refer to the above requirements.

A worker shall not perform welding when another worker may be exposed to radiation from the arc unless the other worker is wearing suitable eye protection or is protected by a screen.

# 6. FOOT PROTECTION

All employees of Canadian Road Builders Inc. will be required to wear protective footwear on all worksites.

The protective footwear must be CSA approved as outlined in the CSA STANDARD CA/CSA Z195-02 (or the latest CSA revision). A green triangle on the outside of the footwear or a green rectangle on the inside of the footwear will identify acceptable footwear.



These green markings indicate that the footwear has a puncture resistant sole and Grade 1 toe protection. All protective footwear will have a safety toe, oil resistant sole, and a reinforced shank. When working on a slippery surface, the protective footwear must also have a slip resistant sole.

Specialized work may require additional foot protection, metatarsal guards, ankle guards and supports, heat or cold protection, chemical resistance, deep-water protection or other protection. All footwear will be 6" high at a minimum.

# 7. HEARING CONSERVATION PROGRAM:

Canadian Road Builders Inc. is aware of the debilitating effect that excessive noise has on employees and will take all reasonable measures to minimize noise generation and noise exposure. These measures will include:

- Preventative maintenance on vehicle exhaust systems
- Employee training
- Designation of "high" noise work areas
- Area signage
- Hearing protection equipment.
- Audio Testing

#### **Employee Training & Audiometric testing**

Hearing conservation will be included in safety meetings held throughout the year. All employee will be required to complete audio testing prior to employment and every 2 years following. Safety meeting will include:

- Health hazards of overexposure to noise
- Alberta Occupational Exposure Limits
- "High" noise work areas
- Area Signage

• Hearing protection equipment.

### Designation of "high" noise work areas

All shop areas having a sound pressure level (noise level) of 85dBA or greater will be designated as "Noise Hazard Areas".

Worksites where grinding operations, other heavy equipment, working in shop, etc. should be treated as "Noise Hazard Areas" were hearing protection is required.

#### **Hearing Protection Equipment**

Canadian Road Builders Inc. employees must utilize earmuffs or earplugs of a CSA class appropriate for the maximum noise level measured on site. Employees will be responsible for wearing appropriate hearing protection equipment.

The minimum class of Hearing Protectors acceptable on a worksite owned or controlled by Canadian Road Builders Inc. is:

CSA Class A (plugs or earmuffs)

# 8. RESPIRATORY PROTECTION EQUIPMENT

Suitable respiratory protection equipment will be worn by all employees of Canadian Road Builders Inc. where they are, or may be, exposed to an atmospheric contaminant above the established Occupational Exposure Limit (O.E.L.). Only respirators bearing a NIOSH/MSHA and/or CSA approval as outlined in the CSA STANDARD CAN/CSA Z94.4-02 (or the latest CSA revision) and are appropriate for the particular respiratory hazard will be permitted for use.

# Introduction

Atmosphere contaminants that can be found in shops or on worksites can range from toxic to irritating nuisance particulates. An initial evaluation of the worksite will be performed to determine if respiratory protection equipment is required.

#### **Respirator Selection**

The following chart lists some of the common types of contaminants found on worksites and the accepted respiratory protection equipment for CRBI employees. Additional respiratory equipment may be required depending on the specific situation and type of airborne contaminant.

# Airborne Contaminant - Respirator

Nuisance Dust - Disposable particulate mask, ½ or full-face mask with a particulate filter, suitable for the type of dust, e.g. Titanium Dioxide, silica sand, calcium carbonate, limestone

Welding Fumes - Half-face mask with particulate filters, Disposable particulate mask

Organic Vapours (solvents) - Half-face or full face mask with organic vapour cartridges. E.g. Ammonia, methyl-methacrylate's, solvents

# User Restrictions

Only competent personnel trained in the use of required respiratory protection will be allowed to enter a contaminated or potentially contaminated area and only after they have been fit-tested. Training will be repeated as required to ensure competency.

Canadian Road Builders Inc. employees are required to work on locations where respirators are required, the employees will ensure that:

- The respirators are in good condition and ready for use.
- The respirators are positioned so that there will not be any confusion as to which respirator to use
- If there is a possibility that a worker may be required to wear different brands or styles of respirators they are adequately trained in the use of each type.
- Only personnel who are able to obtain an adequate facial seal with the type of respirator required will be allowed to; enter the contaminated or potentially contaminated area or to act as a buddy or rescue person.

Only personnel who are considered physically able to wear a respirator and perform the required tasks will be allowed to wear a respirator. Special attention will be placed on:

- Absence of facial hair. Workers must be clean shaven every day
- Visual acuity
- History of or presence of, disease of the respiratory and/or cardiovascular systems
- History of/or presence of, severe claustrophobia
- Job description

# Fit Testing

Fit testing will be performed on every worker requiring a respirator, to ensure that they can physically wear a respirator and obtain an adequate facial seal between the respirator and their face.

Fit testing must be done when:

- The respirator is first issued
- At least every two years if there is no change in the respirator or wearer
- If there is no change in the type, style, brand or size of the respirator
- If there is no change to the wearer's physical condition that could affect the respirator fit

# Field Fit Test

This is a respirator fit test performed immediately prior to entering a contaminated or potentially contaminated area. The test is MANDATORY for all persons entering the area. It consists of a wearer physically blocking the air inlet to the respirator and attempting to inhale.

The face mask should be drawn in toward the face and no air should pass across the seal area. In cases where the air inlet cannot be blocked, the respirator wearer shall block the exhalation valves and attempt to exhale. The face mask should balloon out from the face but air should not pass across the seal area.

Any person that fails the fit test or does not attempt the fit test shall NOT be allowed into the contaminated or potentially contaminated area.

# Cleaning, Maintenance and Storage

All respirators will be cleaned according to the manufacturer's instructions or with respirator wipes.

Respirators will be stored in clean and dry location. Safety department will give accessibility to all workers who may be required to wear them during the course of their normal job after fit testing verified.

Respirators will be inspected prior to and immediately following each use.

### **Personal Protection Equipment Poster**

