



CROSSFIELD

VULCAN MINE

Standard Operating Procedure Personal Protective Equipment (PPE)



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1. PURPOSE

The purpose of this procedure is to outline PPE requirements, including instructions on using, maintaining and disposing of equipment.

2. SCOPE

This procedure is applicable to all persons at the Vulcan Mine including employees, contractors and visitors, and is applicable across all Vulcan Mine operations.

The controls within this procedure are mandatory.

3. DEFINITIONS

AS/NZ	Australia/New Zealand Standard.
Authorised Person	A person who has the required competencies and who has been appointed by the Site Senior Executive to carry out a designated scope of duties.
CMSHA	Queensland Coal Mining Safety and Health Act (1999).
CMSHR	Queensland Coal Mining Safety and Health Regulation (2017).
CMW	Coal Mine Worker.
Competent Person	Competence for a task at a coal mine is the demonstrated skill and knowledge required to carry out the task to a standard necessary for the safety and health of persons.
JHA	Job Hazard Analysis.
PPE	Personal Protective Equipment – Clothing or equipment designed to be worn by someone to protect them from the risk of injury or illness.
RPE	Respiratory Protective Equipment.
Hard Hat	Head protection to protect the user from injury caused from falling objects, collisions with fixed structures and impact from projectiles. Must comply with AS/NZS 1801:2024
Bump Cap	Industrial bump cap (description as per EN 812) “Referred to as a “bump cap”, intended to protect the wearer’s head against injury caused by striking the head against hard, stationary objects.” Bump caps do not provide protection from falling objects or high-impact hazards and are not certified under AS/NZS 1801. Instead, they are tested against the EN 812 standard for industrial bump caps
SDS	Safety Data Sheet.
SHMS	Safety and Health Management System.
SOP	Standard Operating Procedure.
SSE	Site Senior Executive.
Take 5	Personal Risk Assessment.

4. PROCEDURE

4.1. Signage

Signs calling for specific items of PPE shall be obeyed at all times.



Figure 1: Example PPE Signage

4.2. Selection and Provision of Personal Protective Equipment

Personal protective equipment for use by employees shall only be of an approved type. All equipment shall have the registered mark of the Australian Standards (AS) displayed or be otherwise approved by the relevant certification authority.

The provision of personal protective equipment should always be considered as a last resort when engineering or work procedures cannot remove a hazard. When protective equipment is required, every effort should be made to ensure that it is as comfortable to use as possible.

Considerations shall be given to materials as well as design to achieve the light, cool result suited to the conditions.

PPE shall have the registered mark of the AS displayed or be otherwise approved. The minimum PPE required for all CMWs (outside of the administrative area) is as follows:

- safety glasses;
- high ankle zip and/or lace up steel capped boots;
- long pants;
- Vulcan Mine approved reflective long-sleeved shirt;
- cut 5 rated work gloves must be carried at all times (preferably on a glove clip); and utilised for manual handling tasks as required; and
- personal isolation lock (and tags if lock is unnamed).

The selection of PPE shall be determined in accordance with the appropriate AS and the following shall be considered:

- workers' familiarity with the nature of the work and associated risks;
- performance requirements with the capability of different types of PPE;
- level of protection against the risks;
- creation of other hazards;
- PPE adequacy and ability to fit individuals required to use it;
- pre-existing medical conditions and current health of the CMW; and
- comfort.

The Coal Mine Operator shall ensure all CMWs are supplied with adequate and applicable PPE. This includes maintaining a stock of spare and replacement PPE that can be readily issued as required.

Visitors shall wear PPE provided for their use.

4.2.1. General

In the hotter months particularly, clothing should tend to be lightweight, comfortable fitting, and light in colour. (Dark colours absorb radiant heat, rather than reflecting it).

Natural fibres 'breathe' more easily than do most synthetics and cotton tends to have the best qualities of both, being cool and hard wearing.

Socks should be wool or a predominantly wool blend for comfort in the hot conditions.

Note that natural fibres assist in dissipating undesirable static electricity, although they cannot prevent it altogether.

Hair nets shall be required for employees with long hair while working near power tools, pulleys, moving belts etc.



Rings, bracelets and necklaces shall not be worn by operational and workshop personnel.

Any facial adornment that when worn, is not close fitting with the skin must be removed or replaced with a close-fitting stud. Sleeper, barbell and loop type adornments of a similar nature are not permitted to be worn.

'Medic Alerts' can be worn but they must be worn under clothing so no risk of entanglement. Wrist watches with bands that anchor at opposite sides of the watch face are permitted, Velcro or other bands which completely encircle the wrist are not permitted as they may also be a source of entanglement.

4.2.2. Special Clothing Applications

a) Reflective or Fluorescent Vests

All employees, subcontractors and visitors entering mine operations and near vehicle movements who are not wearing shirts with high visibility, must wear a high visibility vest suitable for day / night operation.

b) Workshop – Synthetic clothing

Workshop personnel shall not wear synthetic type overalls. Persons working in areas where fire could be involved such as servicing, fabrication or electrical work, shall not wear synthetic clothing.

Injuries by way of burns may arise from sparks and flames igniting or melting flammable chemicals impregnated into the clothing. The molten material sticks to the skin inflicting major burns, which more often than not become infected.

For this reason, only cotton overalls, shirts and trousers should be worn.

c) Administration areas

are not required to wear:

- When in the administrative area of the mining site, or in an enclosed cab of vehicles and mobile equipment, individuals Safety helmet
- Safety glasses
- Safety gloves

4.2.3. Hearing Protection

Hearing protection shall be worn when exposed to excessive noise levels. Excessive noise should be calculated depending on the nature of the task. Table 1 may be used as a guide however VUL-MOP-091-Noise and Vibration should be consulted for further information.

Table 1: Indicative allowable noise exposure

dB(A)	Time
82	12 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7 ½ minutes
106	4 minutes
109	2 minutes

Hearing protection shall be worn in designated high-risk areas (identified by the mandatory hearing protection sign), or when in close proximity to noisy equipment, e.g., grinders, rattle guns, crushers and drills.



Hearing protection shall also be worn in the following areas:

- near all compressors and while using compressed air equipment;
- while driving / riding on or standing near operating diesel plant or vehicles;
- while working near conveyor drive heads or transfers;
- near crushing or coal handling transfer stations;
- where signage requires hearing protection to be worn;
- operating equipment with a dB rating above acceptable limit; and
- as directed by supervisors.

Earmuffs and earplugs shall be regularly inspected and replaced as required. All personnel shall have access to ear plugs or muffs or both. Helmets with attached earmuffs shall be issued where appropriate e.g., drillers and service personnel working in exposed conditions.

Any disturbance of the sealing surface of earmuffs or any tearing of the lining indicates immediate replacement is required.

Earplugs may be required to supplement muffs when employees are exposed to very high noise levels for short periods of time.

Employees shall be responsible for maintaining earmuffs in a clean and operative condition.

Disposable earplugs shall be available at lens cleaning stations and crib rooms. Disposable earplugs should only be used once and then discarded.

NOTE:

Removal of hearing protection for five seconds in a minute will reduce to by 50% the protection given by earplug or muff.

4.2.4. Head Protection

Coal Mine Workers shall assess the hazards associated with the task being undertaken and select appropriate head protection in accordance with the hierarchy of controls. The requirement for head protection shall be determined by the identified hazards and not solely by location.

Where a credible residual risk of impact injury or environmental exposure remains, appropriate head protection shall be selected. Where there is uncertainty regarding the requirement for impact protection, a safety helmet shall be worn until the hazards have been assessed.

Appropriate head protection may include, but is not limited to:

- Safety helmets;
- Bump caps;
- Wide brim hats;
- Legionnaire style hats;
- Safety helmets fitted with approved sun brims or neck flaps; or
- Other approved head protection suitable for the identified hazard.

Safety helmets are mandatory for the following activities:

- Lifting operations.



- Scaffold erection and dismantling.
- Working beneath elevated work.
- Working in excavations or trenches where there is a credible risk of head injury.
- Any additional activities identified through risk assessment or other task-specific procedures.

Bump Caps

A bump cap is a lightweight head protection device intended to protect against minor knocks and scrapes in low-risk environments, such as the HV and LV workshops, or areas with low overhead hazards.

The Bump Cap:

- Can be used in low-risk environments and tasks
- Must not be used in place of a hard hat.
- Must be of satisfactory construction and tested against the EN 812 standard.

Head protection is not normally required for the following activities unless identified by a task-specific risk assessment or procedure:

- Inside enclosed cabs of vehicles or mobile equipment.
- Within office buildings and associated administration areas.
- Within crib rooms and amenities.
- Within enclosed workshops and sheds where there is no credible head protection hazard.

Environmental Exposure

Where personnel are exposed to environmental conditions that may adversely affect their health or wellbeing, appropriate controls shall be selected in accordance with the hierarchy of controls. Controls may include shade, task scheduling, sunscreen, appropriate headwear, hydration, or other measures suitable for the task, environmental conditions and duration of exposure.

Emergency Response Head Protection

During emergency response activities, ERT members are authorised to wear task-specific helmets appropriate to their emergency function (e.g. rescue, firefighting, medical response, technical operations). Task-specific head protection shall be used in place of standard site hard hats where it provides equal or greater protection for the identified hazards and is approved by the SSE and identified through risk assessment.

Helmets shall not be modified in any way, including:

- painting or unauthorised stickers (the paint or glue may cause a chemical reaction which reduces the helmet's strength);
- drilling or punching holes in the helmet; or
- modifying the shape of the helmet.
- Hats, caps or beanies shall not be worn under safety helmets.

Approved and compatible accessories or head protection may include:

- Retaining (chin) strap
- Wide brim or neck flaps (sun protection)
- Face shields
- Cap lamps
- Earmuffs



4.2.5. Foot Protection

The wearing of approved 'Type 1 (heavy duty) AS/NZS 2210 is mandatory across all site areas (other than administration):

- Ankle length (minimum);
- Secured by zip / laces, fully threaded
- Safety toecap (steel or composite) ; and
- Gaiter/spats/shin protectors (firefighting)

Boot styles with ankle support and light weight dual density soles are recommended for those personnel spending extended periods on their feet or who regularly walk on rough or broken ground. High lace up boots is required on mine sites for this reason. Elastic sided boots are not permitted on mine sites.

Safety footwear must be maintained in a good state of repair and replaced if damaged.

Reasons for replacement include any separation of the upper from the sole, holes or tearing of any kind, impact damage, or damage that prevents proper fastening of the footwear.

Laces should be checked regularly and replaced if defective.

Note:

It is recommended that electrically conductive footwear be used by those involved in handling explosives, as this will assist in the dissipation of static electricity built up on the body. (The wearing of 'anti-static' footwear does not negate any requirements for the safe handling of explosives).

Emergency Response are recommended to source and wear fire resistant footwear.

Visitors are required (as a minimum) to wear enclosed footwear in administration areas and standard PPE outside of administration areas.

Fall protection Harnesses and Lanyards must conform to AS 2626

- CMWs required to wear fall protection must be trained in the fitment, handling and storage of the equipment
- Fall protection must be inspected prior to use
- Fall protection equipment must be inspected, tested and tagged in line with AS 1891. Industrial Fall Arrest Systems.
- Fall protection equipment that is damaged must be tagged out of service
- Harness must be selected and inspected, fit for the task being undertaken.
- ERT equipment for rescue e.g., Rescue harness

A rescue or rope access harness has many features including multiple equipment loops and retainers for attaching tool holders and equipment pouches. These harnesses are designed specifically for rope access, rescue and any other applications where the user may spend long periods suspended in a harness.

4.2.6. Clothing

Australia has the highest incidence of skin cancers in the world. Skin cancers prove fatal in approximately 900 cases each year.

These cancers are caused by overexposure to solar radiation, and are a particular problem in the Northern areas, where temperatures often favour the wearing of a minimum amount of clothing.

Personnel exposed to the elements are urged to take sensible precautions, and in particular to cover the head and shoulders.

Safety helmets go a long way towards shading the head, but may be improved with add-on brims, or the addition of back and side flaps. These shall be provided upon request.

Hi Visibility, Long trousers and long-sleeved shirts are required to minimise exposure to sunlight for all outdoor workers. In industrial plants and where chemicals are used, long trousers and long-sleeved shirts are also required. The shirt is to



be tucked in, buttoned and with sleeves rolled down and buttoned at the wrist. Risk of entanglement during a task, sleeves may be rolled up for the duration of the task.
Each Business Unit may need to specify its own work clothing requirements according to their operations and activities.

Although no substitute for proper clothing, sun block (factor 50+) is recommended for skin exposed to the sun for moderate to lengthy periods. Bulk supplies of factor 50+ sun block shall be supplied for all employees' use on site.

CMW's should be mindful of:

- Skin Irritation
- Persons with sensitive skin may benefit from the use of barrier cream on hands to prevent irritation.
- Outdoor workers should also consider protection from the sun, or wind burn to the lips.

4.2.7. Electrical Clothing Additional Requirements

Electrical personnel shall wear a minimum of 4cal/cm² arc rated PPE on their arms, legs and torso with the following requirements:

- flame retardant properties;
- no metallic threads or exposed conductive material;
- cotton underpants; and
- switching coat and switching pants.

In addition, the following items shall not be worn:

- metal watchbands;
- neck chains;
- rings;
- metal bracelets;
- metal earrings or body piercings; and
- metal spectacle frame glasses.

4.2.8. Eye and Face Protection

Eye protection shall be mandatory in a mine area and workshop area, except when inside an enclosed vehicle cab or in an exempt area.

All eye protection issued shall be of a close fit wrap around style or be fitted with side shields to give the highest protection against windblown dust or particles.

Mono goggles or full-face shields shall be worn when using high speed tools, e.g., grinders, off-cut saws, etc., or when handling liquid chemicals.

Safety sunglasses meeting AS 1067:2003 are recommended for an outside worker on day work for UV protection. Clip on sunglasses can be used with prescription safety glasses for a similar level of protection.

Persons using prescription spectacles must have the lens hardened or use Polycarbonate (PC) impact resistant lenses. The Company will provide prescription safety spectacles in accordance with Attachment "Guidelines for Provision of Prescription Safety Spectacles".

Safety spectacles must be comfortable, and clean. Damaged safety spectacles must be replaced immediately.

Face shields for specific tasks, e.g., grinding, welding and drilling shall be used to supplement eye protection.

Contact lenses are not to be worn if exposed to the following conditions:

- Dry and dusty environments
- Flying particles
- Chemical substances
- Fumes and Vapours
- Radiation sources, including intense heat.

Special lenses and shields must be worn for particular cutting and welding processes. **Table 2** outlines suitable lenses.

Table 2 – Non-ionising Radiation Eye Protection Guide



NON-IONISING RADIATION EYE PROTECTION GUIDE	
Shade Number	Operation
2	Soldering
3 or 4	Torch Brazing
3 or 4	Light Cutting, up to 1"
4 or 5	Medium Cutting, 1" to 6"
4 or 5	Gas Welding (light) up to 1/8"
5 or 6	Heavy cutting, over 6"
5 or 6	Gas Welding (medium) 1/8" to 1/2"
6,7 or 8	Gas Welding (heavy), over 1/2"
10	Shielded Metal-Arc Welding, 1/16, 3/32, 1/8, 5/32" Electrodes
10,11,12,13 or 14	Atomic Hydrogen Welding
11	Gas Shielded Arc Welding (non-ferrous), 1/16, 3/32, 1/8, 5/32" Electrodes
12	Gas Shielded Arc Welding (ferrous), 1/16, 3/32, 1/8, 5/32" Electrodes
14	Shielded Metal-Arc Welding, 3/16, 7/32, 1/4" Electrodes
14	Shielded Metal-Arc Welding, 5/16 and 3/18" Electrodes
14	Carbon-Arc Welding

AS1338 requires the maintenance of records relating to the use of eye filters to protect against radiation generated in welding operations.

4.2.9. Respiratory Protection

a) Dust Masks

Any task that gives rise to local dust or airborne particulates will necessitate breathing protection, in the form of a disposable dust mask. This mask should be fitted at the first sign of airborne dust at the workplace.

Persons in the vicinity of loading operations shall require the same protection.

Drillers shall be required to wear dust masks at all times when drills are operating, unless they are within their air-conditioned cab with the door closed.

Dust masks shall be removed at the first sign of clogging or damage, and immediately replaced with a new mask.

If dust masks are not suitable, consideration shall be given to the use of respirators. Fit testing shall be conducted prior to RPE being used. Fit testing measures the effectiveness of the seal between the respirator and worker's face. There are two methods:

- Qualitative: a pass / fail test relying on the wearer's ability to taste or smell a test agent. This type of test can be used on half-face respirators.
- Quantitative: uses specialised equipment to measure how much air leaks into the respirator. This type of test can be used on half-face and full-face respirators.

Proven methods of fit testing are provided in AS/NZS1715.

Fit testing must be conducted by a competent person, manufacturer, supplier or consultant each time a new make or model of respirator is issued and whenever there is a change in the wearer's facial characteristics or features which could affect the facial seal (e.g., significant weight loss or gain).

Facial hair including beards, moustaches, sideburns, and stubble will stop a respirator from sealing properly. Workers required to wear tight fitting respirators, must be clean-shaven to ensure proper seal of the respirator to the face.

Fit test records shall be kept in the **VUL-REG-18-25-Fit Test Register**, detailing:

- name and company of person being tested;
- type of test performed;
- make, model, style and size of respirator tested;
- date of the test;
- result of the test; and
- person who conducted the test.

b) Respirators



The Company shall provide respirators when such equipment is necessary to protect the health of an employee. Respiratory equipment shall comply with the relevant legislation and standards.

Written standard operating procedures, governing the selection and use of respirators shall be provided.

Respirators must be examined after use to ensure their cleanliness and that the valves are competent. Filters shall be resealed and enclosed in a sealed container to prevent contamination.

When stored after use, respirator equipment shall be cleaned and placed in sealed containers to prevent contamination and insect infestation.

Respiratory equipment shall be placed in a ventilated cupboard / locker area and stored away from direct sunlight and other sources of direct or radiant heat.

c) Emergency Response Team

Emergency Response Team (ERT) are required to be clean shaven and have no facial hair that may jeopardise the seal on a self-contained breathing apparatus (SCBA) in accordance with Standard: AS/NZ 1715:2009 Selection, use and maintenance of respiratory equipment.

4.2.10. Hand Protection

Gloves complying with AS/NZS 2161, are to be provided and carried at all times in work areas other than administration areas. They are to be worn where required by risk assessment or other documented procedure. Gloves must be "Cut 5" class or as designated for a specific task and shall be regularly inspected and replaced if worn or damaged.

Suitable and approved gloves shall be used to protect hands from injury, e.g., chemically resistant gloves or suitable leather gloves etc.

Emergency response gloves as per AS/NZS 2161 certified non leather textile firefighting glove—see **Appendix 3 - Glove Matrix**.

4.2.11. Skin Protection

Sunscreen lotions (SPF 50+) shall be available for use where CMWs are exposed to UV light, such as performing prolonged work in the sun. These lotions should be used as needed and worn by CMWs who work in open areas.

Sun hats are mandatory for work where the worker is required to work in direct sunlight for extended periods. Attachments for hardhats shall be provided.

Barrier creams and sunscreens shall be made available to all CMWs and be used as appropriate:

- dry creams used to coat the skin, make clean-up easier and protect against very mild acids;
- wet creams used to protect against irritants dissolved in water, such as mild acids and alkalis; and
- solvent repellent creams used to protect against irritating solvents and oils.

4.3. Use and Storage of PPE

PPE shall be used in accordance with the manufacturer's instructions.

Signs shall be posted in locations on site where it is mandatory to wear PPE.

Despite being mandatory, where practicable, PPE shall not be relied upon as the sole means of hazard control. A combination of controls is generally the most appropriate method of controlling a hazard.

PPE shall be inspected before and after use and replace items not in a serviceable condition, e.g., worn, damaged or brittle.

Faulty or damaged items of PPE shall be tagged Out of Service and repaired in accordance with the manufacturers' recommendations or disposed of.

PPE shall be stored in a clean and fully operational condition.

PPE shall also be maintained in accordance with manufacturer's requirements and/or with any appropriate standard.



4.4. Laundry

The employee must ensure uniforms are kept in good order and are laundered regularly. Employees are to follow care instructions on each item of clothing to keep uniforms in a professional, presentable condition.

All emergency response PPC that has been in contact with hazardous materials such as chemicals, smoke and other hazardous airborne particles must be washed in the ERT washing machine, no other garments may used in this laundry machine

4.5. Task Specific PPE Requirements

Before prescribing the type of supplementary PPE required for a task, a Risk Assessment shall be used to determine appropriate PPE requirements as part of the hazard control process.

4.6. Training

General information about PPE shall be provided in the site induction. This training shall cover the requirements for the provision, use, storage and maintenance of PPE.

Specific job training shall cover basic design principles, correct use and wearing in accordance with manufacturer's instructions, limitations of use, comfort and fit, maintenance and replacement procedures.

4.7. Disposal of PPE

Damaged, worn or unserviceable PPE shall be disposed of in the appropriate manner. PPE contaminated with biological matter shall be disposed in the hazardous waste receptacles. For PPE contaminated with chemicals, refer to the SDS for disposal requirements.

5. ROLES AND RESPONSIBILITIES

SSE	Shall review and approve this procedure.
HST Manager	Shall ensure that all provisions of this procedure are implemented, and that compliance is achieved.
Superintendents	Shall be responsible for their area of operations and the implementation and application of this procedure; Provide adequate training, information, structure, and supervision to ensure that this procedure is implemented; Carry-out a periodic review of activities to ensure the appropriate application and understanding of this procedure; and Ensure immediate and appropriate steps are taken to investigate and rectify any risks to health and safety arising from these activities.
Supervisors	Ensure all CMWs are familiar with, have access to and comply with the requirements set out in this procedure.
All CMWs (including visitors and contactor)	Shall comply with the requirements of this procedure.



6. REFERENCES

- AS 1319-1994 (R2018) Safety signs for the occupational environment
- AS 1338-1974 Protective filters against optical radiation in welding and allied operations
- AS 1499-1996 Personal flotation devices - Type 2
- AS 1512-1996 Personal flotation devices - Type 1
- AS 1906.1:2017 Retroreflective materials and devices for road traffic control purposes – Retroreflective sheeting
- AS 2161-1978 Industrial safety gloves and mittens (except for electrical and medical gloves)
- AS 2260-1996 Personal flotation devices - Type 3
- AS 2375-1980 Guide to the selection, care and use of clothing for protection against heat and fire
- AS 3765.1-1990 Clothing for protection against hazardous chemicals – Protection against general or specific chemicals
- AS 4067:2012 Protective helmets for structural firefighting
- AS/NZS 1067:2003 Sunglasses and fashion spectacles
- AS/NZS 1269.3:2005 (R2016) Occupational noise management - Hearing protector program
- AS/NZS 1270:2002 Acoustics - Hearing protectors
- AS/NZS 1336:2014 Eye and face protection - Guidelines
- AS/NZS 1337:1992 Eye protectors for industrial applications
- AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment
- AS/NZS 1716:2012 Respiratory protective devices
- AS/NZS 1800:1998 Occupational protective helmets - Selection, care and use
- AS/NZS 1801:1997 Occupational protective helmets
- AS/NZS 1891.4:2009 Industrial fall-arrest systems and devices – Selection, use and maintenance
- AS/NZS 2210.1:2010 Safety, protective and occupational footwear – Guide to selection, care and use
- AS/NZS 2604:2012 Sunscreen products – Evaluation and classification
- AS/NZS 4011:1997 Single-use examination gloves – Specification
- AS/NZS 4179:2014 Single-use sterile rubber surgical gloves – Specification (ISO 10282:2014, MOD)
- AS/NZS 4501.1:2008 Occupational protective clothing – Guidelines on the selection, use, care and maintenance of protective clothing
- AS/NZS IEC 60903:2020 Live working – Electrical insulating gloves
- Coal Mining Safety and Health Act 1999 (Qld)
- Coal Mining Safety and Health Regulation 2017 (Qld)
- Electrical Safety Act 2002
- RHSQ Safety Bulletin 13 [Hazards from use and storage of aerosol containers](#)
- RHSQ Significant Incident 56 [Lime burns to eyes due to failure of a discharge hose](#)
- RHSQ Safety Bulletin 74 [Isocyanates from 2-pack paints and use of polyurethane resins in mining](#)
- RHSQ Safety Bulletin 76 [The presence of chrysotile \(white asbestos\) in brake and clutch linings](#)
- RHSQ Safety Bulletin 88 [Management of dust containing crystalline silica \(quartz\)](#)
- RHSQ Safety Bulletin 132 [Xanthates in mining](#)
- RHSQ Safety Alert 196 [Mine worker suffers chemical burns to eyes due to high pressure fluid release](#)
- RHSQ Safety Alert 284 [Severe acid burns to foot as drain collapses](#)
- [Globally Harmonised System of Classification and Labelling of Chemicals \(GHS\)](#)
- [National Code of Practice for the Control of Workplace Hazardous Substances \[NOHSC: 2007 \(1994\)\]](#)
- [National Guideline for the Selection, Use and Maintenance of Personal Protection Equipment for Electrical Arc Hazards](#)
- [Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice 2011](#)



7. RELATED DOCUMENTS

- VUL-PLN-001-Safety & Health Management Plan
- VUL-MOP-091-Noise
- VUL-REG-18-15-Fit Test Register
- VUL-RSK-065-PPE
- Letter of Authority Prescription Safety Spectacles (for PSG)
- VUL-WRAC-The use of head protection (Hard Hats) on-site

8. REVIEW

This document shall be reviewed at minimum every two years, or as follows:

- when there is a change of method and/or technology and/or legal or other requirement that may affect the accuracy of this document;
- when operational changes occur that effect the currency of the document;
- when there has been a significant event to which this document was relevant; and
- as a result of relevant audit findings.

9. AMENDMENTS

Version	Date	Description	Document Controller
01	29/05/2020	Initial Draft	Rachael Dacker
02	29/06/2020	Risk workshop	Shane Johnson
03	08/04/2021	Review	Nicole Davey
04	31/08/2021	Review and formatting	Rachael Dacker
05	14/09/2023	Review and Update	Kelly Jensen
06	22/07/2026	Review and update change to head protection	Chris Payne



APPENDIX 1 – Guidelines for provision of Prescription Safety Spectacles

Vulcan Mining recognises that it is vital that all employees use suitable personal protective equipment in our workplaces.

To this end, all employees need to be issued with safety spectacles, which comply with Australian Standard AS1337, to provide a high level of protection against eye injury. The polycarbonate lenses (PC) specified have a medium impact rating equivalent to normal safety glasses.

For employees who need to wear corrective lenses to have adequate vision for their work, the Company will re-imburse the employee for the supply of prescription safety spectacles up to a maximum value, provided they meet the requirements specified in these guidelines.

Letter of Authority Prescription Safety Spectacles shall be completed and authorised by the employees' SSE or delegate prior to submission to the approved spectacle supplier. You will need a current prescription to present with this Letter of Authority, to have the spectacles made.

The Company will cover the costs of your normal requirements for prescription safety spectacles up to a maximum value. There may be optional frames available, but these must comply with Australian Standards and any additional cost will be at your expense.

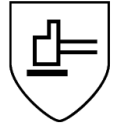
Your normal requirements will be agreed with your SSE or delegate based on your vision requirements e.g., single vision, bifocal for reading or distance or both and your job requirements e.g., indoor work, outdoor, day or shift work.

Any alternate frames must be approved to Australian Standards and all spectacles will be supplied with fixed side shields that cannot be removed.

Replacement of these prescription safety spectacles will be on a fair wear and tear basis. They are provided with a case to protect them when not in use and if they are cleaned with lens cleaner and soft tissues, the lenses should not be scratched and become unserviceable in less than 12 months, usually 2 years or more. If the lenses need to be replaced because of scratching, only the cost of lens replacement will be covered by the Company.

New spectacles will be provided when a new prescription requires an adjustment to vision.

APPENDIX 3 - GLOVE MATRIX

Use	Glove Style	Specification
Site Requirements depending on application; EN 388;2016 Abrasion; Coup cut; 5, Tear; Puncture; 4, ISO cut; D, Impact test; P, Chemical; EN374, Thermal; EN407 Previous EN 388;2003 was adopted as AS/NZS 2161.3 it is expected that the AS/NZS 2161 will be updated to reflect EN 388;2016.		
Grinding and machining Metal parts and components assembly Metal finish inspection Machine tool operation Sheet metals and metalwork e.g., duct placement Waste handling e.g., recycling glass and metal Handling heavy loads and metal edges Cutting of dry, painted, or galvanised metal pieces Maintenance work		EN388:2003  ACTP A: Abrasion C: Coup Cut* T: Tear P: Puncture EN388:2016  ACTPSI A: Abrasion C: Coup Cut* T: Tear P: Puncture S: ISO Cut* I: Impact Test EN 388;2003 legislation the "C" should be 5 this means Cut 5 resistant EN 388;2016 Legislation the "S" should be E or F-updated to reflect new way to test for cut resistance  EN 388 1234BP 1. ABRASION RESISTANCE 2. CUT RESISTANCE, COUP TEST 3. TEARING STRENGTH 4. PUNCTURE RESISTANCE 5. CUT RESISTANCE, TDM TEST ISO 13997 6. IMPACT PROTECTION



Use of hand tools for maintenance Impact protection Scaffolding Fabrication	 	EN388:2003  ACTP A: Abrasion C: Coup Cut* T: Tear P: Puncture EN388:2016  ACTPSI A: Abrasion C: Coup Cut* T: Tear P: Puncture S: ISO Cut* I: Impact Test	EN 388;2003 legislation there is no test for Impact EN 388;2016 legislation there is a test and it's a "P" for pass.
Very durable used for; Materials handling Gardening Maintenance- abrasive resistant		EN388:2003  ACTP A: Abrasion C: Coup Cut* T: Tear P: Puncture EN388:2016  ACTPSI A: Abrasion C: Coup Cut* T: Tear P: Puncture S: ISO Cut* I: Impact Test	EN 388;2003 legislation the "C" should be 5 this means Cut 5 resistant EN 388 2016 Legislation the "S" should be D-updated to reflect new way to test for cut resistance



Specific
Chemical Gloves


EN374-3:2003

AJKL

Measured breakthrough time	Permeation performance level
>10 minutes	1
>30 minutes	2
>60 minutes	3
>120 minutes	4
>240 minutes	5
>480 minutes	6

Code letter	Chemical	CAS N°	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile Compound
D	Dichloromethane	75-09-2	Chlorinated paraffin
E	Carbon disulphide	75-15-0	Sulphur containing organic compound
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Dimethylamine	109-89-7	Amine
H	Tetrahydrofuran	109-99-9	Heterocyclic and ether compound
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-85-5	Saturated hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulphuric acid 96%	7664-93-9	Inorganic mineral acid



Specific Welding Gloves for thermal risks		 EN 407 123456 1. FIRE PROPERTIES OF THE MATERIAL 2. CONTACT HEAT 3. CONVECTIVE HEAT 4. RADIANT HEAT 5. SMALL SPLASHES OF MOLTEN METAL 6. LARGE QUANTITIES OF MOLTEN METAL 1. FIRE PROPERTIES OF THE MATERIAL The ignition time and how long the material glows or burns after ignition is measured in this test. 2. CONTACT HEAT The glove is exposed to temperatures between + 100°C to + 500°C. Then it is measured how long it takes for the inner side of the glove to become 10°C warmer than it was from the beginning (about 25 ° C degrees). The glove must withstand the increasing temperature of maximum 10°C for at least 15 seconds for an approval. 3. CONVECTIVE HEAT Here it is measured how long it takes to increase the inside temperature of the glove to 24°C, using a gas lubrication (80kW / m2). 4. RADIANT HEAT The average time is measured for a heat permeation of 2.5kW / m2. 5. SMALL SPLASHES OF MOLTEN METAL The test is based on the number of drops of molten metal that generates a temperature increase between the glove material and the skin with 40°C. 6. LARGE QUANTITIES OF MOLTEN METAL A PVC film is attached to the back of the glove material. Molten iron is poured onto the material. The measurement consists of how many grams of molten iron required to damage the PVC film.
Puncture Resistant Gloves Formwork Recycle glass Thorns Sharp metal		EN388:2003  ACTP A: Abrasion C: Coup Cut* T: Tear P: Puncture EN388:2016  ACTPSI A: Abrasion C: Coup Cut* T: Tear P: Puncture S: ISO Cut* I: Impact Test EN 3882003 legislation "P" from 1-4 EN 388; 2016 legislation "P" from 1-4



APPENDIX 4 - RPE MATRIX

Area	Task(s)	Associated Procedure ID	SEG Job Descriptions	Number of Workers	Contaminant	OEL (8-hr TWA)	Contaminant Source	Is RPE Mandatory	Respirator Type	Filtering Level/Type	Is Fit Testing Required?	Respirator Type	Filtering Level/Type
Field Maintenance	N/A	No use of air compressors to blow out filters on site	N/A	N/A	N/A	N/A	No use of air compressors to blow out filters on site	No	No	No	No		
Maintenance - Tyre Fitters	Tyre Fitting	VUL-SOP-72a Tyres, wheels & Rims Management	Grinding, buffing, and cleaning of mating surfaces for metal.	4	Respirable Coal Dust	1.5 mg/m ³	Grinding, buffing, and cleaning of mating surfaces for metal.	Yes		P2	Yes		
					Respirable Crystalline Silica	0.05 mg/m ³							
Laboratory	Not operational at present	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No		
Surface Preparation and Coating	Surface coating	N/A	N/A	TBA	Identified from SDS	Identified from SDS	N/A	No	No	No	No		
Surface Preparation and Coating	Spotter for abrasive blasting activities, area cleaning	N/A	Vapours, and dust--located out of immediate area	TBA	Respirable Dust Chemicals identified from SDS	Identified from SDS	Vapours, and dust--located out of immediate area	No	3M 9322A+ Flat Folded P2 Disposable Respiratory Protection or similar	N/A	Yes		
Surface Preparation and Coating	Abrasive blasting	VUL-SOP-096 Abrasive Blasting	Vapours, and dust--located out of immediate area	TBA	Respirable Dust	0.05 mg/m ³	in Designated open areas	Yes		Air fed, with a HEPA filter	Yes		
Site	Weed Spraying	Weed Spraying	Weather allows e.g. wind direction	TBA	Chemicals identified from SDS	Identified from SDS	Weather allows e.g. wind direction	Yes		N/A	Yes		
Site	General	tasks with possibility of dust	Depends on task	TBA	Respirable Dust Chemicals identified from SDS	0.05 mg/m ³	Depends on task	Yes - as required		N/A	Yes		
Maintenance - Boilermakers	Boilermaker activities, including - Welding, gouging, lancing, oxycutting - materials include mild steel, hardened steel	VUL-SOP-096c(ii) Hazardous Hot Works	Fumes generated from welding and allied processes.	TBA	Welding Fume	5 mg/m ³	Fumes generated from welding and allied processes.	Yes		P3	Yes		