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**Kaius Resources**

**Mine Operating Procedure – First Aid**

Reference: MOP-008

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# Purpose

This Mine Operating Procedure outlines the requirements for the provision of first aid resources and facilities.

# Scope

This Mine Operating Procedure (MOP) applies to all activities at sites operated and/or under the control of Kaius Ltd and its subsidiaries. It applies to all persons working on the site including exploration personnel, permanent, temporary and contract employees. This MOP forms a key part of the Kaius Safety & Health Management System which has been established to manage risk to an acceptable level and in accordance with all relevant legislation.

# Authority

This procedure can only be altered with the approval of the Site Senior Executive (SSE).

# Responsibilities

**Site Senior Executive (SSE)**

Site Senior Executive shall ensure:

* That all of the provisions of this MOP are implemented, and that compliance is achieved, and
* Adequate resources are provided to maintain compliance with the requirements of this MOP, and
* The application and requirements of this MOP are periodically audited and reviewed.

**Supervisors**

Supervisors shall ensure:

* Shall ensure that the requirements of this MOP are implemented.
* That workers, including contractors, are trained in the requirements of this MOP.
* All work undertaken within their area of responsibility is conducted in accordance with the requirements of this MOP.
* They monitor compliance with this MOP.
* This MOP is readily available to all workers and contractors.
* Physical and human resources for first aid are maintained, and
* Training is conducted in first aid and the requirements of this MOP.

**Mine Workers**

Mine Workers have a responsibility to themselves and to their fellow workers to ensure that the safety aspects prescribed in this MOP are followed.

# Definitions and Abbreviations

The following definitions and abbreviations are used in this procedure.

|  |  |
| --- | --- |
| CMSHA | Coal Mining Safety and Health Act (1999) |
| CMSHR | Coal Mining Safety and Health Regulation (2017) |
| Competent Person | A person who has the necessary training, skills, and capability to carry out the task |
| CPR | Cardio Pulmonary Resuscitation |
| DRSABCD | Danger, Response, Send for help, Airway, Breathing, Compressions, Defibrillation |
| KRES | Kaius Resources |
| MOP | Mine Operating Procedure |
| SDS | Safety Data Sheet |
| Shall | Indicates that a statement is mandatory |
| Should | Indicates a recommendation |
| SSE | Site Senior Executive |

# Procedure

First aid in the workplace is the emergency care of injured or sick persons and aims to preserve life, promote recovery, and prevent the injury or injuries becoming worse.

If a mine worker is injured (regardless of severity) the event shall be reported to their supervisor immediately. The mine worker shall then be taken to the site paramedic for an initial examination **– Note**: Where a critical injury is sustained, or rapid medical intervention is necessary, the Kaius Resources Emergency Response Plan shall be implemented.

Any event requiring first aid response shall also be responded to in accordance with KRES STD-010 Incident Investigation, Corrective and Preventative Action Standard as well as MOP 002 Rehabilitation and Return to Work Procedure.

There are a number of situations where first aid treatment may be required. Mine workers should provide first aid within the limits of their experience and not hesitate to activate the emergency procedure if in doubt.

Generally, first aid response is based around the DRSABCD principle –

**Danger** – Assess the area for hazards

**Response** – Try to gain a verbal response from the person e.g., Ask them to tell you their name

**Send** – Send for assistance, raise the alarm, activate the emergency procedure

**Airway** – check the person’s airway for blockages/restrictions/foreign objects/blood/vomit/injuries

**Breathing** – look/listen/feel for signs of breathing

**Compressions** – Start CPR – 30 chest compressions to 2 breaths

If unable/unwilling to perform breaths perform chest compressions at 100-120 chest compressions per minute

**Defibrillation** – Apply defibrillator (AED) as soon as possible, upon activation of the AED follow the voice prompts

## Snake Bite

If a person is bitten by a snake it shall be treated as an emergency. Activate the Emergency Procedure immediately.

All vehicles and equipment shall carry snake bite kits in their cabs.

Upon encountering a person who may have been bitten by a snake apply the pressure immobilisation technique (described below).

Do not touch, wipe, clean or interfere with the bite site.

Cover immediately with non-stick dressing (shiny surface dressing) from a snake bite kit.

If the person becomes unconscious and stops breathing apply DRSABCD

1. Lie the patient down and ask them to keep still. Reassure the patient.
2. Place non-stick dressing (shiny surface dressing) over top of the bite, if possible, mark the site of the bite on the outside of the dressing
3. If on a limb, apply an elasticised roller bandage (10–15 cm wide) over the bite site as soon as possible. Apply a further elasticised roller bandage (10–15 cm wide), covering the fingers or toes and moving upwards on the bitten limb as far as can be reached (ensuring to cross the bite site when you wrap the bandage). Apply the bandage as firmly as possible but do not cut off circulation, monitor the tips of the patient’s fingers/toes to ensure circulation has not been cut off. – If bandages are not available lie the patient down and keep them calm until help arrives.
4. Immobilise the bandaged limb using splints.
5. Keep the patient lying down and completely still (immobilised).
6. Write down the bite location or draw an X on bandage (i.e., Where on the person’s body they were bitten) time of the bite and when the bandage was applied.
7. Stay with the patient until medical aid arrives.

**Note: Do not attempt to capture or kill the snake under any circumstances**

## Spider, Tick, and Insect Bites

The majority of insect bites can be treated with rest and elevation, application of hot or cold packs, basic pain medication and antihistamines (administered by a paramedic or medical practitioner).

If a person is bitten by a wasp or spider use the same treatment as for a snake bite.

If a person is bitten or stung, make them comfortable and seek immediate assistance from the site paramedic.

Do not attempt to remove ticks, seek assistance from the paramedic.

If the person displays an adverse reaction or loses consciousness activate the emergency procedure and apply DRSABCD until assistance arrives.

**Note: Do not attempt to catch the spider or insect.**

## Strains and Sprains

Any strain/sprain/discomfort should be reported to your supervisor immediately.

If a person suffers a strain or sprain, make them comfortable and seek immediate assistance from the site paramedic.

Apply the RICE method – Rest, Ice, Compression, Elevation.

## Burns

Once the skin is burnt, further damage to the skin and tissue will occur unless immediate first aid treatment is commenced.

Basic first aid to manage burns includes:

* If patient is on fire, use water or fire blanket or get them to roll on the ground / smother with dirt.
* Continuously wash burnt area and surrounds with water (minimum 20 minutes).
* Gently remove any rings (if possible), watches, belts, or tight clothing from area before it starts to swell – only if safe to do so, do not remove gloves or skin in the process.
* Avoid skin-to-skin contact with the patient’s burnt areas.
* Look for both entry and exit point burns.
* Do not cover the burnt area with sterile non-stick burns dressing or gel until treated by paramedic, do not apply ice as it may make the burn worse.
* Continue to use water to irrigate the dressing and the burnt areas and monitor the patient’s skin temperature to avoid over-cooling the patient.
* On large surface area burns, cover burns dressing with burns blanket.
* Do not break blisters.
* Do not remove loose skin.
* Do not attempt to remove clothing or material which is sticking to the skin.
* Nil by mouth, and
* Keep out of direct sunlight.

Burns can also lead to severe shock and subsequent infections. Rather than trying to estimate the percentage amount of burn area, it is better to describe what areas are burnt – descriptions below.

### Superficial burns (First Degree Burns)

* Sunburn like reddening of the skin.

### Partial thickness burns (Second Degree Burns)

* Blistering of the skin.
* Skin peeling, and
* Pain around the area.

### Full thickness burns (Third Degree Burns)

* Deep burns.
* Black-charred appearance, and
* With full thickness burns, the pain may be minimal as the nerve endings are destroyed. May cause loss of body fluid with dehydration and associated shock.

### Major body burns

May be managed by applying sterile dressings once resuscitation is effected or in progress and the patient location is no longer hazardous.

### Airway burns

A patient suffering from airway burns should be kept under observation and transported to hospital without delay, preferably by ambulance. Resuscitation should be undertaken, if needed.

The patient usually has a hoarse voice if the airway is involved.

Airway burns can cause severe airways problems and choking by swelling or closure of the airway.

Nil by mouth until treated by paramedic.

### Flash burns to eyes

Flash burns to the eye results from the effects of heat and light on the superficial layers of the cornea and normally do not involve deeper layers. There usually is no permanent scarring but the pain is severe and frightening for the patient.

Basic first aid to manage flash burns includes:

* Close both eyes of the patient.
* Cover both eyes with moist pads and bandage, and
* Ensure patient is seated and reassured, remain with patient until paramedic arrives to administer treatment.

## High Pressure Fluid Injection

The high-pressure injection of a fluid such as hydraulic oil, grease and paint constitutes a medical and surgical emergency, requiring access to appropriate specialist surgical expertise as soon as possible, if a high-pressure fluid injection occurs, activate the emergency procedure.

The following has the potential to cause injury by high pressure fluid injection:

* Compressed air jets.
* Diesel fuel injection systems.
* Paint sprayers, and
* High pressure hydraulic systems.

Guidelines for avoiding injury:

* Never have your hands or any part of your body in contact with hose or fittings under pressure.
* Never attempt to work on live hydraulic systems.
* Don’t lift hydraulic equipment by the hoses, and
* Don’t kink hydraulic hoses.

Any pressure above 0 psi can cause fluid to be injected into human tissue, however injury typically involves pressure well in **excess of 150 psi** (10.342 bar). After the initial injection, the fluid travels in a narrow stream until muscle or bone is encountered causing the fluid to rapidly disperse in all directions.

Basic first aid to manage fluid injection includes:

* Activate the emergency procedure.
* Administer **DRSABCD** and reassure the patient.
* Clean wound and elevate affected limb.
* Do not provide fluids or food in preparation of surgery.
* Document the time of injury and substance used.
* Provide SDS to medical staff, and
* Transport the patient to hospital without delay, preferably by ambulance. Immediate surgical intervention is highly likely.

**WARNING: Failure to act appropriately may result in death of patient, or the need to amputate the affected limb.**

## First Aid where Electricity is involved

First aid response to electrical incidents is covered in:

MOP 038 First Aid – Accidents involving electricity

## Dehydration and Heat Stress

Responses to dehydration and heat stress are set out in KRES MOP 008 Heat Stress.

## First Aid Resources

Basic first aid training and brief overview knowledge shall be provided to all personnel as part of the induction process.

First aid response simulations shall be included as part of the emergency response plan and procedures.

Designated first aid trained personnel on site, and

A paramedic response shall be maintained on site for immediate response as required.

### Physical resources

Each worksite or work vehicle shall have:

* One or more Workplace First Aid Kit or Personal First Aid Kit.
* Snake Bite Kit, and
* Any other additional first aid modules or items needed to appropriately treat all reasonably foreseeable injuries or illnesses that could occur as a result of being at the workplace or as a result of the work performed there.

The first aid kits should:

* Be large enough to house all the required contents and be able to be securely closed.
* Contain a list of all of the required contents for that kit.
* Display a white cross on green background prominently on the outside.
* Be made of material that will protect the contents from dust, moisture, and contamination, and
* Be portable.

The minimum requirements for a first aid kit are outlined in Appendix A. Most items in the kit are not reusable. If certain items are used frequently more than the minimum quantity of those items in your kit may be needed.

Eye wash facilities will be made available in the workplace,

First aid kits should be inspected regularly (or as part of pre-start checks in vehicles/mobile equipment). If necessary, replenish as items reach their expiry date, or as items are used. If a first aid kit is used, the supervisor should be notified, and the kit checked and replenished.

**Low Voltage Rescue Kit**

First aid response to electrical incidents is covered in:

MOP 038 First Aid – Accidents involving electricity

## Training and Awareness of First Aid Requirements

### Training for designated first aiders

Designated first aiders shall hold current nationally recognised Statement/s of Attainment for the nationally endorsed first aid unit/s of competency. Training for designated first aiders shall be provided by a Registered Training Organisation, which is registered to provide the relevant competencies. Refer to the site Training Scheme.

The number of trained first aiders on site shall be as determined by risk assessment.

The training should include the specific hazards relevant to the worksites which may be in remote areas.

### Refresher training for designated first aiders

Designated first aiders should attend training on a regular basis to refresh their first aid knowledge and skills and to confirm their competence to provide first aid.

Refresher training should occur at intervals no longer than 3 years. CPR refresher training should occur annually.

### Training and awareness for work crews

As a minimum, first aid information will be included in workplace inductions for all crews. This information should include:

* The location of first aid kits and equipment.
* Names of designated first aid personnel, and
* Communication procedures for contacting designated first aiders.

### Recordkeeping

Records of any first aid treatments that occur in the workplace will be maintained and recorded. The supervisor will be made aware of any first aid actions.

# Review Criteria

This document shall be reviewed:

* Every three years.
* When there is a change of method and/or technology that may affect the accuracy of this document, and
* When a significant incident has occurred that is relevant to this document and its subject matter.

# Safety and Environment

Safety and Environment are covered in the body of this procedure.

# Attachment, References and Related Documents

## References and Related Documents

Mining and Quarrying Safety and Health Act 1999

Mining and Quarrying Safety and Health Regulation 2017

DNRM Hazard Database

Minerals Industry Safety Handbook Jan 2004

Minerals Exploration Safety Guidance Note Nov 2004

MOP RSK 008 – First Aid