AUSMITE

Bulkan North Mine Site

Standard Operating Procedure

SOP-207.01 Heat Stress & Solar Radiation

(Training Document)

Contents

1. Introduction

This Standard Operating Procedure specifies the minimum requirements to provide controls from solar radiation and heat stress at the Bulkan North site as per sections 96 (c) (iii) and 143 of the *Queensland Coal Mining Safety and Health Regulation*.

The procedure does not provide for the risks associated with solar radiation and heat stress outside the boundaries of the Bulkan North site.

This SOP applies to all Coal Mine Workers and visitors at the Bulkan North mine site.

2. Definitions

Term	Definition
Heat Illness and Heat Stress	Heat-related illness covers a range of medical conditions that occur when the body cannot sufficiently cool itself, from rash or cramps to very serious conditions such as heat stroke
Solar radiation and exposure	Solar radiation is all of the light and energy that comes from the sun Solar Radiation Exposure occurs where a person may be required to perform work involving direct/indirect contact with sunlight
Thermal Comfort	*Work should be carried out in an environment where a temperature range is comfortable for workers and suits the work they carry out.* *Optimum comfort for sedentary work is between 20 and 26 degrees celsius, depending on the time of year and clothing worn. Workers involved in physical exertion usually prefer a lower temperature range.* (Managing the work environment and facilities Code of Practice – SafeWork Australia)

3. Competencies / Authorisation

All personnel at the Bulkan North site must be provided with instruction in how to recognise and apply the appropriate controls for the effects of solar radiation and heat illness and what immediate action to undertake – for themselves or others.

4. Preparation for the Task

Hazards that contribute to heat illness include:

- Temperature
- Humidity
- Amount of air movement
- Radiant temperature of surroundings
- Clothing
- Physical activity (metabolic heat load)

These hazards and the effect of solar radiation must be considered when preparing for a task.

5. Minimum Controls

PPE must always be worn in accordance with the **SOP-202.01 PPE**. Of particular relevance is:

- Long sleeved and collared shirts
- Long pants
- Hard hat (with broad brim cover)

Solar Radiation

The following additional controls are to be considered when solar radiation is recognised as a hazard:

- Where possible, outdoor work tasks shall be scheduled outside the hours of greatest UV exposure (10am to 2pm)
- Additional PPE is to be provided and used as appropriate. Including wide brimmed hats, sunglasses and high protection sunscreen (30+)
- Where possible, tasks are to be rotated to minimise time exposure
- Portable shade structures and natural shade areas are to be used where practicable
- Meal breaks are to be taken in shade

Heat Stress

It is important to distinguish between a condition that threatens the health and safety of a person and a feeling of personal discomfort.

The following additional controls are to be considered when heat illness is recognised as a risk:

- Rescheduling work so the hot tasks are performed during the cooler part of the day
- Transferring the work to a shaded location
- Reducing the time each individual spends allocated to a hot task (e.g. job rotation)
- Arranging for more workers to be available to support job rotation
- Providing extra rest breaks in a cool area
- Providing an air conditioned environment for rest breaks or transporting workers to an air conditioned room
- Using mechanical aids to reduce physical exertion
- Increasing air movement using fans in internal facilities or work areas
- Allowing workers to acclimatise
- Providing cool drinking water at the work site

Recommended water intake

During hot weather or whilst undertaking tasks that involve significant exertion, workers should drink about 200 mL cool water every 15 to 20 minutes.

6. Summary of Key Points

- Hazards that contribute to heat illness must be considered when preparing for a task. They include:
  - Temperature
  - Humidity
  - Air flow
  - Clothing
  - Physical activity
- During hot weather, workers should drink a cup of water (about 200 mL) every 15 to 20 minutes.
- The following controls must be considered for solar radiation as a hazard:
  - Scheduling work outside the hours of greatest UV exposure
  - PPE, including wide brimmed hats, sunglasses and high protection sunscreen (30+);
  - Task rotation
  - Natural and artificial shade
- The following controls must be considered when heat illness is a risk:
  - Drinking more cool water - a cup of water (about 200 mL) every 15 to 20 minutes.
  - Scheduling work around the warmer part of the day
  - Doing the work at a different location;
  - Use of fans
  - Task rotation

Ausmite Worker/ Contractor Declaration of Compliance

I (Print Name)_____declare that I have read and understood the requirements and procedures of this Ausmite Bulkan North Mine Site SOP being document number and title: **SOP-207.01 Heat Stress and Solar Radiation.**

I acknowledge that while performing any work on the Ausmite Bulkan North mine site, I must comply with all aspects of this SOP. I understand that failure to comply with this SOP may result in me being escorted from the work site with re-admission and/or approval to continue work duties being at the sole discretion of Ausmite management.

Signature: _____ Date: _____

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