VULCAN MINE

Standard Operating Procedure

Check, Examine and Restrict Work Areas

Contents

1. PURPOSE

The purpose of this procedure is to describe the process of undertaking inspections (checks and examination) of work areas and to describe requirements for restricting access to parts of the mine and hazardous areas at the Vulcan Mine.

The procedure provides for controls and requirements to ensure compliance with the Queensland Coal Mining Safety and Health Regulation 2017 sections 94,99 & 118:

2. SCOPE

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

The controls within this procedure are mandatory.

3. DEFINITIONS

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.
HME	Heavy Mobile Equipment.
IMS	Integrated Management System.
JHA	Job Hazard Analysis.
OCE	Open-cut Examiner.
SHMS	Safety and Health Management System.
SOP	Standard Operating Procedure.
SSE	Site Senior Executive.
Take 5	Personal Risk Assessment.
TARP	Trigger Action Response Plan.

4. PROCEDURE

Vulcan Mine Inspection Schedule			
Inspection Type	**Document Number**	**Person Responsible**	**Frequency**
OCE Inspection	VUL-FRM-11-01	Open Cut Examiner	Each Shift
Operations Shift Report	VUL-FRM-11-21	Shift Supervisor	Each Shift
ROM Inspection	VUL-FRM-11-07	ROM Supervisor	Each Shift
Workshop Inspection	VUL-FRM-11-05	Workshop Supervisor	Each Shift
Potable Water Treatment	VUL-FRM-11-22	Site Plumber	Each Day Shift
Pit Inspection	VUL-FRM-11-16	Production Supervisor	Weekly
Intersection Inspection	VUL-FRM-20-02	Open Cut Examiner	Each new intersection.
Raw Water Infrastructure	VUL-FRM-11-23	Pump Crew	Weekly
First Aid Room Inspection	VUL-FRM-11-08	Senior ESO	Weekly
Drill and Blast Checklist	VUL-FRM-16-04	D&B Supervisor	Each new pattern
Severe Weather Preparedness	VUL-FRM-04-04	Site Senior Executive	Quarterly or before weather event.
Third Party Geotech	External Report	Technical Services	Quarterly

4.1. OCE Inspections

Requirements for OCE inspections are covered in further detail in VUL-SOP-141-OCE Safety Inspections

4.2. Supervisor Inspections

Supervisors are to conduct an inspection of the work area at the commencement of every shift and continually conduct inspections throughout their shift. If hazards are identified then they shall be communicated to affected Coal Mine Workers and the OCE , rectified or demarcated and recorded in the daily supervisor report.

Supervisors shall make arrangements for remedial actions for hazards reported throughout the shift and as identified by scheduled inspections.

Supervisors must assist the OCE with managing hazards to an acceptable level of risk within the work areas and aid with the communication of all hazards to CMWs.

4.3. Workplace Inspections

All CMWs shall complete a visual Workplace Inspection before an on-site activity is carried out, and periodically while activities are carried out at their workplace. A Take 5 shall be completed in conjunction with a workplace inspection, as a personal risk management tool.

Any hazards identified shall be communicated to the workgroup and supervisor/OCE. These hazards will be either demarcated or rectified, and then documented in the VUL-REG-18-14-Hazard Identification Register.

4.4. Area Inspections

Formal area inspections can be conducted by field leadership and shall be documented on the relevant inspection form within the Vulcan Mine SHMS.

4.5. Closed and Restricted Areas

Any area or roadway which is considered hazardous may require closing or having access restricted. If restriction or closure is required, the OCE will communicate with the supervisor and other relevant parties and ensure the installation of signage, bunding or witches hates, depending on the severity of the hazard.

Where a roadway or area is closed, the only persons permitted to enter the roadway or area shall be the OCE or persons in their attendance or under their authorisation.

Where a roadway or area is restricted, CMWs will be required to contact the OCE and seek authorisation to enter the area. Areas that may require restriction include but are not limited to - Exposed edges, vertical drops, sumps, drains, bodies of water, roads, drop zones, unstable, hazardous or broken ground.

The OCE may restrict the number of vehicles using the roadway or area, or place other necessary restrictions. VUL-TAR-004-Weather describes the triggers and associated actions for wet weather conditions.

4.5.1. Ground Stability and Cracking

The VUL-TAR-003-Geotechnical Failure describes the triggers and associated actions for different geological conditions.

The sides of an open-cut excavation shall be maintained in a secure condition at all times. Sides shall be benched or battered back at the required angle. Where it is not practicable to scale down large loose material from the sides of the open cut excavation, the area into which loose material is likely to fall shall be barricaded by bunds and signposted as required.

Indicators of potential instability include but are not limited to:

- Floor heave;
- Excessive Rilling and rock falls;
- New debris piles at the base of faces;
- Sudden increase or decrease in water flow or seepage; and
- Increased rate of movement as indicated by monitoring.

4.5.2. Access Roads

Clearly signed and delineated vehicle access shall be provided to mining areas and major plant locations, further details provided in VUL-MOP-128-Design and Construction of Mine Roads.

The access shall avoid unstable, hazardous or broken ground and provide for the safety of a person in the vicinity of high and low walls, hazardous sumps and drains.

Unless entry to an area is restricted, there shall be safety bunds in place at high walls and advancing faces.

4.5.3. Exposed Edges and Vertical Drops

Access shall be controlled to any drill bench and areas containing open drill holes.

Safety berms or other appropriate control measures shall be established to prevent persons and HME from falling over edges where there is a vertical drop of 0.5 metre or more.

4.5.4. Stockpiles

Excavated stockpiles shall include controls in place to prevent unauthorised access to open faces. Further details can be found in VUL-SOP-117_Spoil Dumps and Excavated Faces.

4.5.5. Monitoring and Control of Unstable Walls of the Excavation

Areas of known instability and other hazardous areas shall be cordoned off or the area restricted and the OCE on duty shall inspect these areas.

4.5.6. Overhead Work

Where overhead work is being conducted, barricades must be erected around the work area to protect others below from falling objects.

4.5.7. Withdrawal of Persons

Where a hazard is considered not to be under control (and consequently an unacceptable risk), the affected part of the mine is to be deemed ‘at risk’. In such circumstances the following actions shall be undertaken:

- All personnel exposed to the hazard are withdrawn to a place of safety;
- The OCE and other competent personnel, as necessary, shall assess the risk and develop a response plan to deal with the situation;

- The on-duty OCE shall make a report on the withdrawal of persons and any remedial action taken; and
- Unauthorised persons shall not be permitted into that part of the mine until the risk is reduced to an acceptable level.

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 contractor)	Shall comply with the requirements of this procedure.

6. REFERENCES

- Coal Mining Safety and Health Act 1999 (Qld)
- Coal Mining Safety and Health Regulation 2017 (Qld)
- VUL-SOP-117 Spoil Dumps and Excavated Faces
- VUL-REG-18-14-Hazard Identification Register
- VUL-TAR-003-Geotechnical Failure
- VUL-TAR-004-Weather

7. REVIEW

This document shall be reviewed as follows:

- when there is a change of method or technology 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.

8. DOCUMENT CONTROL

Version	Date	Description	Document Controller
01	22/05/2020	Initial draft	Rachael Dacker
02	02/07/2020	Risk Workshop	Shane Johnson
03	28/04/2021	Review and formatting	Nicole Davey
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