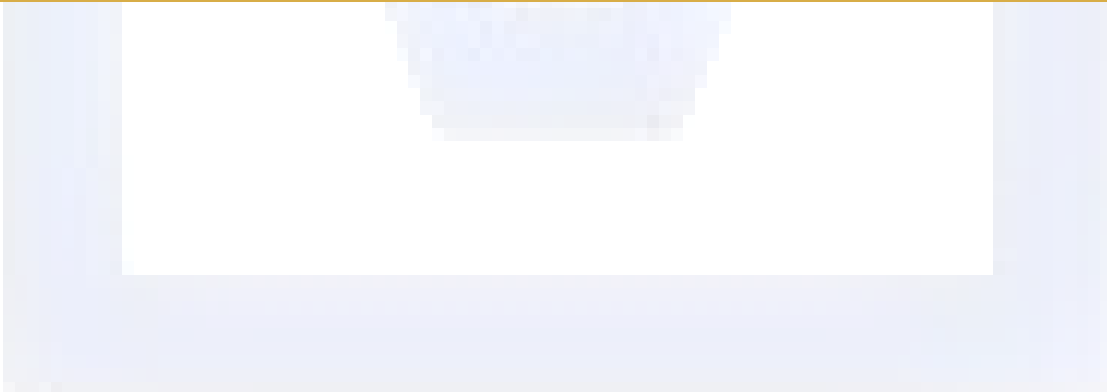




VULCAN MINE



Management Plan Explosives Emergency





Contents

1.	Aim and Objectives of the Plan	3
1.	DEFINITIONS	3
2.	DEFINITIONS	3
3.	ROLES AND RESPONSIBILITIES	5
	All Persons	5
	Deputy Incident Coordinator and Incident Coordinator:	5
	First Aid Officers:	6
	Fire Wardens:	6
	Visitors & Contractors:	6
4.	RECEIPT OF PRODUCTS	6
5.	STORAGE	6
6.	HAZARDS	7
7.	Types and Levels of Emergency	7
8.	EMERGENCY PROCEDURES	8
	Emergency Resources	8
	Termination of an Emergency	8
9.	REPORTING & INVESTIGATION OF AN EMERGENCY	9
10.	MANAGEMENT OF THE PLAN	10
11.	TRAINING	10
12.	EMERGENCY EXERCISES AND TESTING OF THE PLAN	10
13.	CHANGE MANAGEMENT	10
	APPENDIX 1 – EMERGENCY CONTACT NUMBERS	11
	APPENDIX 2 – GENERAL LAYOUTS AND SAFETY DISTANCES	12
	Mine Plan	12
	Reload Safety Distances (based on storage licence quantities)	12
	Storage facility Plans	13
	APPENDIX 3 – EMERGENCY PROCEDURES	15
7.	REFERENCES	24
8.	DOCUMENT CONTROL	24



1. Aim and Objectives of the Plan

The aim of this plan is to develop an effective process to ensure streamline management and response to an emergency involving explosives, dangerous goods or any associated activity. Also to ensure adequate resources are available for managing emergencies within the Vulcan Mine storage facility, re-load facility and all activities involving the use, handling or transport of explosives and/or dangerous goods.

Specific objectives:

- Identify the types and levels of emergencies that may occur within the Vulcan Mine
- Develop and implement control measures (including an emergency organisational structure, resources, procedures, training and testing) to allow for the effective management of emergencies that may occur.
- Provide a framework for reporting and investigation of emergencies.

1. DEFINITIONS

AN	Ammonium Nitrate
ANE	Ammonium Nitrate Emulsion
BEZ	Blast Exclusion Zone
CMW	Coal Mine Workers
CTO	Critical Task Observation
FMZ	Fume Management Zone
HST	Health, Safety and Training
MPU	Mobile Processing Unit
NOX	Nitrogen Dioxide Gases
OCE	Open Cut Examiner
QAQC	Quality Assurance and Quality Control
SSE	Senior Site Executive

2. DEFINITIONS

Emergency:

For the purposes of this plan, an emergency is defined as an abnormal event which disrupts the normal routine and presents an immediate threat to:

- People
- Environment
- Assets



Crisis:

An actual or potential threat to Vulcan Mines short- or long-term ability to do business, due to the impact on Business:

- Continuity
- Financial and Legal Liability
- Reputation

Examples:

High Level events (consequence levels 12 to 25) as per the Incident Notification, Investigation and Reporting procedure are required to be managed through Crisis Management when the event is not readily able to be controlled by the project emergency response mechanisms and/or it can damage Company business continuity, reputation and financial and legal liability this may include;

- Natural disasters – flooding, cyclones
- Major business interruption – loss of key equipment
- Loss of life
- Major environmental release – large scale contamination requiring clean up
- Major legal action – threatening viability of company
- Loss of important computer infrastructure capability – communications / records
- Shutting down operations by external bodies, national publicity

Incident Coordinator:

The OCE/Supervisor or a delegated representative is responsible to manage and control the emergency event until. The State Emergency Authority responds to the incident or the mine site Emergency Response Team (ERT) responds to the incident. The Incident Coordinator assists the State Emergency Authority and/or ERT to coordinate and take initial control of any emergency situation. The Incident Coordinator will also ensure:

- The relevant statutory bodies are advised of the emergency details, and
- Coordinating activities between the company's HST Team and the State Emergency Authority and Emergency Response Teams (ERT) during an emergency situation.

Deputy Incident Coordinator:

The first supervisor to respond to an emergency becomes the appointed Deputy Incident Coordinator that assists and reports to the Incident Coordinator for the duration of that emergency/ crisis event.

Emergency Control Centre:

This is the designated area where the emergency is managed and coordinated.



3. ROLES AND RESPONSIBILITIES

All Persons

In the event of an emergency the role of Vulcan Mine personnel, including operators, supervisors, superintendents and managers is to:

- Take immediate action to bring any emergency under control and return the site to normal operations,
- Raise the alarm to initiate site or area evacuation
- Alert their direct supervisors and managers of the situation and keep them informed and up to date on the conditions of the emergency,
- Liaise with and advise emergency responders of the type and level of emergency and the appropriate control actions to protect people, property and the environment (including evacuation), and
- Report the incident to relevant authorities, investigate the incident and implement recommendations from the investigation.

Deputy Incident Coordinator and Incident Coordinator:

- A Deputy Incident Coordinator shall take control, in the event that the Incident Coordinator is absent at the time of the emergency or in cases where there is a need for some responsibilities to be delegated at the time of the incident or later.
- It is recommended that the Site Manager/Supervisor establish a “support” system with other Managers/Supervisors, who can be called upon to assist, at short notice, in an emergency. Those personnel are to be appointed as back-up Incident Controllers, and Deputy Incident Controllers.
- The Incident Coordinator in the first instance is the Site Manager/Supervisor, or a Manager with sufficient authority to act independently in an emergency and the responsibilities of the role are to;
 - In the event of an emergency, report to the Emergency / Crisis Manager.
 - In the event of an emergency, Co-ordinate the company’s response as per the Emergency Management Procedures detailed in this EMP.
 - Act as the custodian of Emergency Response Plan and Checklists.
 - Ensuring appropriate training is conducted in the Emergency Response Plan and procedures in conjunction with HSE personnel.
 - Arrange drills and/or simulations for the Emergency response and monitor and record response times.
 - Direct any external inquiries from media to the Vulcan Mine spokesperson in accordance with Vitrinite policies. The Incident Coordinator cannot release press releases on their own volition to the media.
 - Liaising with the relevant authorities, inspectors, police and witnesses immediately after a serious incident when they attend the sites.
 - Ensure adequate personnel that are suitably competent in the Emergency Management Procedures are identified and appointed as delegated authorities to be an Incident Coordinator and Deputy Incident Coordinator in your absence from site.



First Aid Officers:

Vulcan Mine personnel suitably qualified in First Aid and appointed as First Aid Officers take a lead role in relation to all Medical Emergencies. This role involves providing first aid, as appropriate, and advising the Site Manager/Supervisor regarding the need for external medical assistance. For all other emergencies, the First Aid Officers provide first aid to injured persons only at the direction of the Site Manager/Supervisor. This is to ensure that First Aid Officers are not placed at risk while providing first aid services.

Fire Wardens:

Vulcan Mine personnel appointed as Fire Wardens are responsible for ensuring the safe and effective evacuation of the site, particularly office and workshop areas, if required. They will be required to assist the management of the emergency by supporting the Site Manager/Supervisor.

Visitors & Contractors:

Visitors & Contractors should alert the OCE/Supervisor or any Vulcan Mine employee to any emergency they identify involving the storage, handling or use of explosives and/or dangerous goods. Visitors & Contractors are required to follow all directions given by the Site Manager/Supervisor, or any other person directed by the Site Manager/Supervisor, in relation to emergency response actions, including site evacuation as a result of an incident.

In the event of a mining specific emergency, all reporting hierarchies are to be followed in accordance with the Mine Emergency Management Plan. Upon arrival to site all visitors must sign on the sites visitors register.

4. RECEIPT OF PRODUCTS

Ammonium Nitrate can be delivered to site in:

- Shipping Containers
- Tipper trailers

Ammonium Nitrate Emulsion can be delivered to site in:

- Banana tankers configured as single trailers, B-Double or Multiple combinations

Effect Chemicals can be delivered to site in:

- In IBC's on flat bed trailers

Initiating Explosives and High Explosives can be delivered to site in:

- Combination loads eg both Initiating and High Explosives
- Single product loads eg Initiating or High Explosives

All deliveries are controlled by Vulcan Mine authorised contractors suitably licenced to transport the products. These deliveries are escorted by an appointed Vulcan Mine blast crew member from the main gate of the mine to the respective drop off points.

5. STORAGE

- Ammonium Nitrate is stored Bulka Bags
- Ammonium Nitrate Emulsion is stored in storage tanks.
- Effect Chemicals are stored on banded pallet systems.
- Initiating Explosives and High Explosives are stored in designated Magazines.
- Any remaining quantities of Ammonium Nitrate, Ammonium Emulsion or Effective Chemicals in the MPU are secured with security seals at the end of each shift.



6. HAZARDS

The main hazards associated with the Vulcan Mine Facilities are related to the properties of ammonium nitrate, ammonium nitrate emulsion and explosives. The highest risk of generating an emergency is a potential truck or vehicle fire. A Broad-Brush Risk Assessment of the sites activities is conducted and reviewed to ensure all required emergency procedures are included in this plan.

- Heating, Fire and Decomposition: Ammonium Nitrate and Ammonium Nitrate Emulsion are oxidising agents and will support fires involving combustible material by providing oxygen, but they will not burn themselves. Gases emitted include oxides of nitrogen (NO_x).
- Explosion: An explosion of Ammonium Nitrate or Ammonium Nitrate Emulsion could occur under extreme conditions of heating and confinement, contamination and/or initiation by a shock wave or impact. This is unlikely through normal operations. Explosives will react to the effect of fire and may detonate without warning.
- Highest Risk of Initiating an Emergency in a Storage Facility: Vehicle fires - delivery trucks of Ammonium Nitrate, Ammonium Nitrate Emulsion and Explosives.

7. Types and Levels of Emergency

The types and levels of emergencies have been identified at a Vulcan Mine operation/facility are as follows:

Vehicle Fires – Delivery Trucks of Explosives and Explosive Precursors:

Delivery vehicles deliver product to sites frequently and are required to travel long distances from the storage facilities and/or manufacturing plants. Fire protection resources should allow a small fire to be contained within the reload compound but fires are not fought in magazine compounds. If control cannot be achieved and an explosion is possible, evacuation is the only means of preventing personal injury.

Fire or Heating of Explosive Precursors within Process Equipment (Auger, Pump):

Implemented safety control processes, fire protection resources, emergency stop functions, flow/pressure control interlocks and procedures should allow this type of incident to be controlled within its local vicinity. If control cannot be achieved and an explosion is possible, evacuation is the only means of preventing personal injury.

Fire in or around Reload Compound, Magazine Compound or Loaded Vehicles:

Firefighting facilities should allow a small fire to be brought to control within the Vulcan Mine Facilities. If the fire cannot be extinguished and grows, it should be assumed there is potential for an explosion. If control cannot be achieved and an explosion is possible, evacuation is the only means of preventing personal injury.

Spill or Leak that could lead to Environmental Contamination:

Due to the nature of the products stored, a spill or leak of any contaminant is likely to only affect the area in which the spill occurs inside the reload. Outside of the storage facilities the work area (eg: loading shot) is bunded as part of bench preparations.

Fire in Office, Crib Room or Workshop:

Firefighting facilities should allow a small fire to be controlled within the area in which it occurs. If the fire cannot be extinguished by these resources, a sustained fire within the building or structure could occur. If control cannot be achieved and an explosion is possible, evacuation is the only means of preventing personal injury.



Lightning in Close Proximity to the Site:

In the case of lightning detected in close proximity to the Ammonium Nitrate/Ammonium Nitrate Emulsion storage are, all activities will cease and all personnel will retreat to the crib room.

In the case of lightning detected in close proximity to the magazine storage or a loaded shot, the area will be evacuated to the predetermined exclusion zone (blast sentry positions). The Mine Superintendent (OCE) and Shotfirer are responsible for the detection and monitoring of lightening activity and calling for an evacuation of the blasting/reload/magazine areas (in consultation with each other).

Flooding:

In the event of the site flooding, emergency response may be limited in access to operational areas.

Medical Emergency (Not Related to any other Emergency):

An injury or illness requiring attendance by an ambulance will affect different sections of mining operations depending on the injury or illness and road access to the location of the patient. If the casualty was unable to be moved from the work area the ambulance presence would affect operations of the entire site to ensure controlled traffic conditions so that the ambulance may reach the patient.

8. EMERGENCY PROCEDURES

The Emergency Management Plan will be followed if the incident cannot be controlled.

Emergency Procedures are provided in Attachment E for the following emergencies:

- Vehicle fires – delivery trucks of Explosives and Explosive Precursors:
- Fire or heating of Explosive Precursors within process equipment (auger, pump)
- Fire in or around reload facility, storage areas, loaded vehicle or bag bailer
- Fire involving diesel storage or delivery vehicle
- Spill or leak that could lead to environmental contamination
- Fire in office, crib room or workshop areas
- Lightning in close proximity to the site
- Flooding
- Medical emergency (not related to any other emergency)
- Security / Terrorist Threat

Emergency Resources

The following emergency resources are located throughout Vulcan Mine Facilities:

- Fire extinguishers
- Spill kits
- Site evacuation alarm (Mine Radio if applicable)
- Eye wash and safety shower
- ERT Response for incident support as required by the Vulcan Mine Incident Coordinator

Termination of an Emergency

For incidents where emergency services have been contacted and have taken responsibility for control of the emergency, emergency services will hand-back control of the facility to Vulcan Mine when they terminate the incident for emergency services response.



At this point, the site should be considered safe for limited access by Vulcan Mine personnel for inspection and assessment.

The Site Manager/Supervisor, together with the Statutory Authority and a limited number of Vulcan Mine personnel and/or client representatives should re-enter the site for inspection of all areas.

The purpose of this inspection is to determine actions that need to be taken to make the different areas of the site safe and suitable for recommencement of normal operation.

Once this inspection and assessment have been made, the emergency should be formally “terminated” by the OCE/Supervisor, and a preliminary plan presented to all site personnel for returning the site to normal operation.

This plan may include a staged re-introduction of personnel to site and recommencement of normal activities. For example:

- If the emergency involved the office or workshop areas, then following inspection, recommencement of normal activities in non-affected areas (eg field maintenance, reload activities, storage) may be permitted.
- If the emergency involved an MPU equipment, then a program for repair or replacement should be developed and implemented in order to return the plant to normal operation as soon as practicable.

No equipment should be used, or normal work activities recommenced, until a thorough inspection of all work areas and equipment has been made. If any damage or defect is identified in any equipment or work area, then it should not be used or occupied until the equipment or area can be repaired or otherwise made safe.

9. REPORTING & INVESTIGATION OF AN EMERGENCY

All emergencies should be reported to the Site Manager/Supervisor as soon as practicable.

The Site Manager/Supervisor should report all emergencies to the Operations Manager and HSETQ Manager as soon as practicable.

All incidents should be reported to the client as soon as practical.

The Site Manager/Supervisor, Operations Manager and HSETQ Manager should ensure that all regulatory requirements in relation to reporting of incidents are met. These include:

- Reporting to Workcover Queensland of serious incidents involving fatality, serious injury or illness; or serious incidents that present a risk to health and safety.
- Reporting to Office of Environment and Heritage and/or Local Government regarding incidents causing or threatening material harm to the environment.

Incidents and near-misses involving Vulcan Mine operations are reported according to the Vulcan Mine **Incident Notification Investigation and Reporting Procedure**. This Procedure identifies Vulcan Mine personnel who must be contacted depending on the severity, or potential severity, of the incident or near miss.

Incident investigation is carried out according to Vulcan Mine **Incident Investigation Guidelines**. This guideline requires the investigation to be completed according to the Incident level of actual or potential consequence.



10. MANAGEMENT OF THE PLAN

The ongoing review, update and management of this plan is the responsibility of the Site Manager/Supervisor, in consultation with the HSETQ Manager.

This plan should be reviewed at least once every 12 months following the annual emergency exercise.

11. TRAINING

Training for all personnel is to be conducted in accordance with the site Training Needs Analysis (Training Matrix).

12. EMERGENCY EXERCISES AND TESTING OF THE PLAN

An emergency exercise will be conducted at least once every 12 months. This may be in conjunction with or in addition to an annual site evacuation drill. The emergency exercise may involve a desktop exercise and/or a practical drill. Where practicable, this exercise will be conducted in conjunction with emergency services and the site Emergency Response Team.

Vulcan Mine will facilitate a debriefing following this emergency exercise to identify improvements that can be incorporated into the plan.

13. CHANGE MANAGEMENT

Vulcan Mine Change Management Procedure provides a process for the management of significant risks rated 12 to 25 according to the Vulcan Mine Risk Matrix or any change involving MPU's or manufacturing equipment. The procedure addresses changes that could otherwise cause harm to people, equipment, the environment or company reputation, related to:

- Process.
- Equipment.
- Material or substance.
- Formulations.
- Weather conditions.
- Change in work locations.
- Configuration of the physical work environment.

In this procedure a "change" is defined as: A modification made to an existing unit of plant, equipment, process, infrastructure or system from its current design or state. It excludes normal repairs or other activities to restore original function.

The Change Management process is documented on the Proposal for Change Form. This form requires details of the change to be specified, together with an assessment of the change to identify hazards and controls, and any standards and/or regulatory requirements. Changes must be approved at different levels based on potential impact of the change. These forms are retained in a Change Register which is held on-site.

This Emergency Management Plan should be reviewed and updated, as required, in relation to any change proposed for the facility.



Description	Contact	Details
		(E.G., Phone Number, Address, Instructions)
ERT Emergency Services Officer	Call Emergency on VHF Ch01	As per site procedure
	ERT Mobile Phone	0460 318 436
Emergency Numbers	Emergency	000
	Ambulance	000
	Police	000
	Fire Brigade	000
	Regulating Authority	1300 739 868

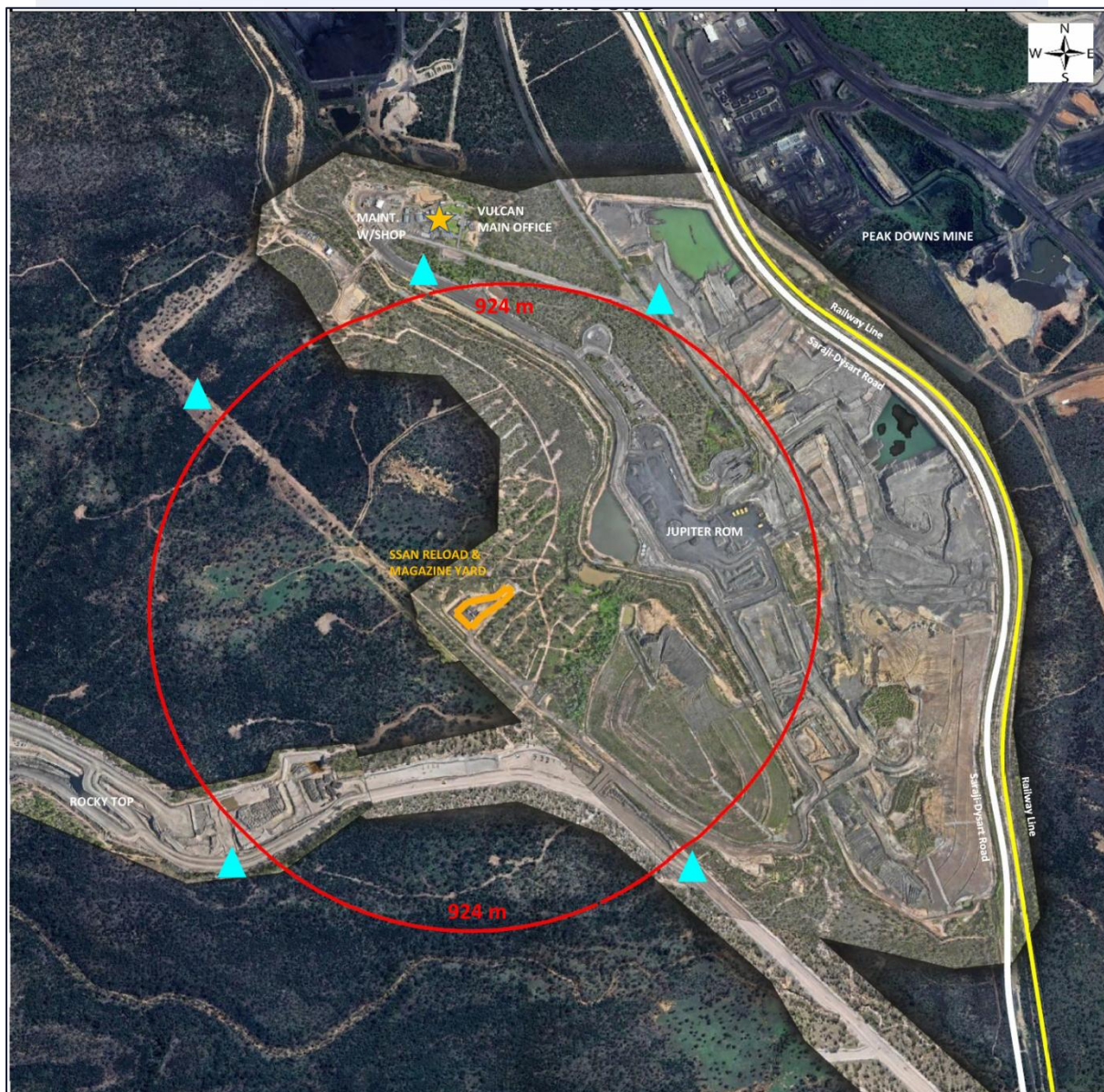


APPENDIX 2 – GENERAL LAYOUTS AND SAFETY DISTANCES

Mine Plan

Reload Safety Distances (based on storage licence quantities)

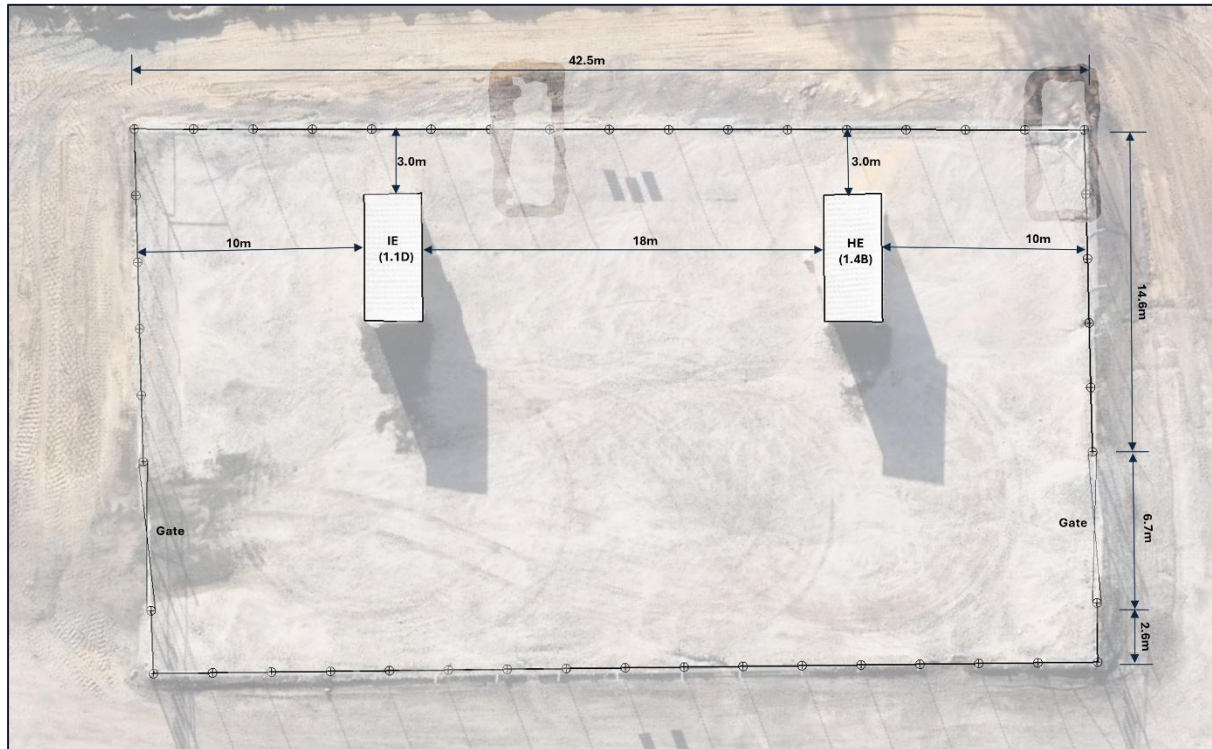
- PWA = 616m,
- PWB = 924m ,
- Vulnerable = 1,847m,
- Site Emergency Exclusion Zone = 924m.





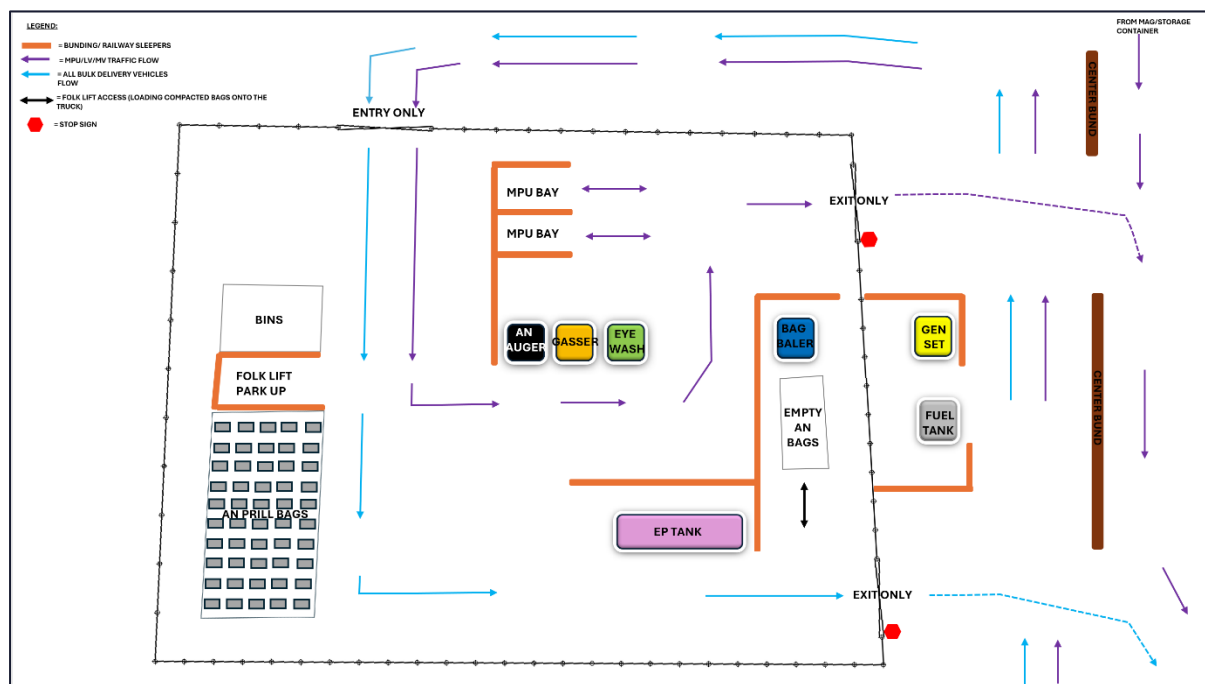
Storage facility Plans

Magazine Compound





Vulcan Mine - Safety and Health Management System
VUL-PLN-117- Explosives Emergency Management Plan
Reload No 1 – only a sketch





APPENDIX 3 – EMERGENCY PROCEDURES

EMERGENCY PROCEDURE

Fire or heating of Explosive Precursors within process equipment (auger, pump)

Vulcan Personnel:

NOTIFY OCE/SUPERVISOR

EVACUATE ALL NON-ESSENTIAL PERSONNEL FROM AREA

ACTIVATE SITE EVACUATION ALARM IF INCIDENT CANNOT BE CONTROLLED

- *Shutdown plant or equipment.*
- *Use appropriate fire extinguisher if oil/grease or electrical fire – ONLY if safe to do so.*
- *Apply water to cool equipment, Ammonium Nitrate or Ammonium Nitrate Emulsion – ONLY if safe to do so.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Assess incident and determine if incident can be controlled.*
- *If incident cannot be controlled: Activate site evacuation alarm, contact emergency services and liaise with emergency services as required.*
- *If incident is able to be controlled: Continue applying water to cool Ammonium Nitrate or Ammonium Nitrate Emulsion, as required.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions.*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Fire in or around reload facility, storage areas, magazine compound or loaded vehicle

Vulcan Personnel:

NOTIFY SITE OCE/SUPERVISOR

EVACUATE ALL NON-ESSENTIAL PERSONNEL FROM THE AREA

ACTIVATE SITE EVACUATION ALARM IF INCIDENT CANNOT BE CONTROLLED

- *Shutdown plant.*
- *Use fire safety equipment, as appropriate, to extinguish fire – ONLY if safe to do so.*
- *Apply water to cool equipment, Ammonium Nitrate or Ammonium Nitrate Emulsion fire – ONLY if safe to do so.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Assess incident and determine if incident can be controlled.*
- *If incident cannot be controlled: Activate site evacuation alarm, contact emergency services and liaise with emergency services as required.*
- *If incident is able to be controlled: Continue applying water to cool Ammonium Nitrate or Ammonium Nitrate Emulsion, as required.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Fire involving diesel storage or delivery vehicle

Vulcan Personnel:

NOTIFY SITE OCE/SUPERVISOR

EVACUATE ALL NON-ESSENTIAL PERSONNEL FROM AREA

ACTIVATE SITE EVACUATION ALARM IF INCIDENT CANNOT BE CONTROLLED

- *Shutdown plant. Stop diesel transfer.*
- *Use dry powder extinguisher if electrical fire. Use foam extinguisher for oil/grease or diesel fire – ONLY if safe to do so.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Assess incident and determine if incident can be controlled.*
- *If incident cannot be controlled: Activate site evacuation alarm, contact emergency services and liaise with emergency services as required.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Spill or leak that could lead to environmental contamination

Vulcan Personnel:

Notify Site OCE/Supervisor

Evacuate All Non-Essential Personnel From Area

- *Shutdown Mobile plant.*
- *Contain liquid spills to minimise area of contamination, using available spill kits.*
- *Review Material Safety Data Sheet regarding appropriate spill clean-up method.*
- *Liaise with Site Manager/Supervisor to develop appropriate spill clean-up method, undertaking Job Safety Analysis / Risk Assessment, as required.*

Site OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Assess incident and determine if incident can be controlled.*
- *Liaise with Vulcan Mine Personnel to develop appropriate spill clean-up method, facilitating Job Safety Analysis / Risk Assessment, as required.*
- *Identify potential for off-site contamination and notify relevant environmental authorities.*
- *Develop method for containing large spills and site containment dam run-off, required.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Fire in Office, Crib Room or Workshop area

Vulcan Personnel:

Notify site OCE/Supervisor

Evacuate all non-essential personnel from area

Activate site evacuation alarm if incident cannot be controlled

ERT should direct any evacuation, and account for all personnel

- *Shutdown plant. Stop all activities.*
- *Use appropriate fire extinguisher or hose reels to extinguish fire – ONLY if safe to do so.*

Site Manager/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Assess incident and determine if incident can be controlled.*
- *If incident cannot be controlled: Activate site Emergency Tone , contact ERT and liaise with emergency services as required.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Lightning in close proximity to the site or magazine compound

Vulcan Personnel:

- *At the direction of the OCE/Supervisor, cease all blasting activities.*
- *Evacuate all personnel from blasting operations and explosives storage areas.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable.

- *Upon identifying storm activity, or potential storm activity in local area, monitor and observe weather conditions at the site and approaching weather conditions.*
- *If lightning is in close proximity to site (that is, time delay between thunder and lightning is < 30 seconds and advise all Blast Crews to shutdown plant and stop all activities. Move to minimum blast sentry distance or the crib room that is outside the reload exclusion zone until storm passes.*
- *Undertake inspection of all equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so*



EMERGENCY PROCEDURE

Lightning in close proximity to the Reload SSAN Compound storage facility

Vulcan Personnel:

- *At the direction of the OCE/Supervisor, cease all handling activities.*
- *Retreat to the storage facility crib room.*

OCE/Supervisor:

Upon identifying storm activity, or potential storm activity in local area, monitor and observe weather conditions at the site and approaching weather conditions as per VUL-TAR-005-Lightning

- *If lightning is in close proximity to site (ie time delay between thunder and lightning is < 30 seconds and), advise all personnel to shutdown plant and stop all activities. Move to crib hut/or a safe refuge that is outside the reload exclusion zone until storm passes.*
- *Undertake inspection of all equipment prior to returning to normal operation and report any damage or evidence of a lightning strike.*

Notify SSE, Operations Manager and HST Manager as soon as practicable

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Flooding

Vulcan Personnel:

- *At the direction of the SSE/OCE, cease all operational activities.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Upon identifying potential for flooding, monitor and observe weather conditions and flood levels in local area.*
- *Undertake inspection and assessment of all areas of the site, identifying and initiating actions to minimise the impact of any flooding (e.g. securing / removing empty drums or IBCs, elevating chemical containers or drums.*
- *If flooding of the site is imminent, liaise with ERT (State Emergency Services) regarding hazards at the site and proposed action.*
- *Initiate site evacuation, if required.*
- *Undertake inspection of all equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE's/Supervisor's instructions.*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*



EMERGENCY PROCEDURE

Medical Emergency (not related to any other emergency)

Vulcan Personnel:

- *Contact ERT to provide immediate assistance.*
- *Notify Site OCE/Supervisor.*

OCE/Supervisor:

Notify SSE, Operations Manager and HST Manager as soon as practicable

- *Liaise with ERT regarding need for external medical assistance.*
- *Contact ambulance, if required.*

ERT:

- *Attend to injured persons.*
- *Liaise with OCE /Supervisor regarding need for external medical assistance.*



EMERGENCY PROCEDURE

Security / Terrorist Threat

Vulcan Personnel:

- *Notify Site OCE/Supervisor on the identification or notification of any Security / Terrorist Threat.*

OCE/Supervisor:

NOTIFY SSE, OPERATIONS MANAGER AND HST MANAGER AS SOON AS PRACTICABLE.

- *Assess Security / Terrorist Threat and initiate site evacuation and contact emergency services, if required.*
- *Liaise with emergency services. Advise emergency services of hazards at Vulcan site.*
- *Undertake inspection, repairs and maintenance of all affected equipment prior to returning to normal operation.*

ERT:

- *Assist and direct evacuation, if required, and account for all personnel in accordance with OCE/Supervisors instructions.*
- *Attend to injured persons ONLY at the direction of the OCE/Supervisor, and if safe to do so.*

7. REFERENCES

- AEISG Code of Practice Storage & Handling of UN3375
- Coal Mining Safety and Health Act 1999 (Qld)
- Coal Mining Safety and Health Regulation 2017 (Qld)
- Broad Brush Risk Assessment- Vulcan Project
- VUL-RSK-116- Explosives Management
- Explosive Information Bulletin 41 & 7
- Explosive Act 1999
- Explosives Regulation 2017
- AS4326 The Storage & Handling of Oxidising Agents
- AS2187.1-1998 Explosives- Storage, Transport and Use storage
- AS4145 Locksets and Hardware for Doors and Windows
- VUL-TAR-004-Weather
- VUL-TAR-005-Lightning
- VUL-TAR-002-Emergency Response

8. DOCUMENT CONTROL

Version	Date	Description	Document Controller
01	13/02/2026	New Document Published	Christopher Payne



Annex A

Role	Prerequisite	Site Requirements	Authorities
Shot firer	-Current QLD Shotfirers Licence -RIIBLA301-Conduct Shot firing -RIIBLA205A-Store, Handle & Transport Explosive Security Clearance	Competent in: -All Explosives SOPs & SWP,MOP -VUL-APP-020 Shotfirer Assessment	To conduct Shot firing activities at Vulcan Open Cut
Support shot firer	-RIIBLA201 Support Shot firing -RIIBLA205 Store Handle & Transport -Explosive Security Clearance	-All Explosives SOPs & SWIs -VUL-APP-021 Assistant Shotfirer	To conduct Support Shot firing activities @ Vulcan Open Cut under Shotfirer's direction
Magazine Keeper	-Current QLD Shotfirer's Licence -RIIBLA301-Conduct Shot firing -RIIBLA205A-Store, Handle & Transport	-All Explosives SOPs & SWIs -Appointed site Shotfirer -VUL-APP-022 Magazine Keeper	To access and manage IE / HE stock in explosives magazine
Magazine Compound Access	-Current QLD Shotfirer's Licence -RIIBLA301-Conduct Shot firing -RIIBLA205A-Store, Handle & Transport - RIIBLA201 Support Shot firing (to support shotfirer)	-All Explosives SOPs & SWPs -Either Appointed Magazine Keeper or accompanied by one	Unsupervised access to and manage IE / HE stock in explosives magazine.
Explosives Receiver	-Current QLD Shotfirers Licence -RIIBLA301-Conduct Shot firing -RIIBLA205A-Store, Handle & Transport	-All Explosives SOPs & SWPs -Appointed Magazine Keeper	To access and manage IE / HE stock in explosives magazine. To receive IE / HE stock from Explosives supplier To receive AN/ANE stock from supplier