

MODERN MINING COMPANY

Safety Performance Standards

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Introduction

The Performance Standards are an integral part of the OZ Minerals business. Their implementation and maintenance provides the means to:

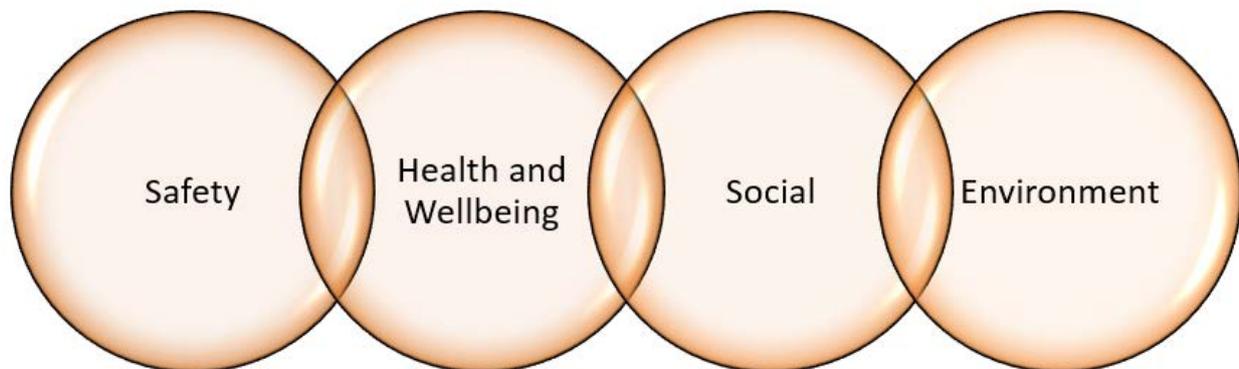
- Manage and minimise threats;
- Identify and realise opportunities;
- Comply with statutory obligations;
- Deliver a framework for continuous improvement;
- Provide a measurement for value-creating business performance.

The Performance Standards apply to all Company-managed Assets, their employees, directors, officers, contractors, consultants, and its subsidiaries and any other party undertaking work at the Asset (**Employees and Contractors**). They also specify the level of performance expected at non-managed Assets. All Company-managed Assets are required to have capability based on the Standards.

New or acquired Assets will undertake a Risk Assessment to determine when the Standards must be fully implemented. This Risk Assessment must be approved by the OZ Minerals CEO.

Safety Performance Standards

The Safety Performance Standards are one of four performance areas that together provide the governance and integration to unlock value across our business.



The Safety Performance Standards describe the minimum requirements of assets to manage threats associated with specific activities or tasks that have the potential to adversely affect the safety of our employees and contractors.

Our target is to achieve an injury and occupational disease free workplace by ensuring that hazards are identified and managed at the source. All safety incidents are thoroughly investigated, learnings shared and corrective actions are implemented.

By delivering a program of threat and opportunity based safety management, we aim to protect the safety of our employees, contractors, communities and any other party undertaking work at the Asset. – without compromise.

OZ Minerals is committed to high standards and leadership in the areas of safety for its employees, contractors and the communities in which we operate. Mining activities by their nature have the potential to impact the safety of people and all threats must be identified, evaluated and managed to minimise all identified actual and potential adverse impacts so far as reasonable practicable.

Definitions

All commonly-used terms and acronyms used in the Safety Performance Standards are defined in the OZ Minerals Glossary.

Roles and Responsibilities

The OZ Minerals CEO is responsible for approving Standards and subsequent updates.

Assigned ExCo members are responsible for maintaining the Standards and authorising supporting documentation. They are also responsible for:

- Assisting management teams and practitioners at OZ Minerals Assets to understand the implementation requirements of the Standards;
- Reviewing the Standards every three years (as a minimum) and updating against relevant external standards, legislation and OZ Minerals public commitments;
- Reviewing any supporting Definitions and Guidelines and updating as required;
- Reporting assurance findings to the OZ Minerals board every three years; and
- Ensuring that definitions and supporting documents are revised and updated as required.

Asset leaders are accountable for:

- Implementing the requirements of the Standards at their location;
- Training Employees and Contractors on the requirements of the Standards;
- Ensuring consistency between the Standards and Asset management; and
- Demonstrating compliance with the Standards through OZ Minerals assurance processes as appropriate to context, individual Standards and reporting requirements.

All Employees, Contractors and Partners must be aware of and apply these Performance Standards in their respective work areas consistent with Asset requirements.

Assets must at all times comply with the content of the Standards. Any exemption to compliance with these Standards must be approved by the OZ Minerals CEO.

Risk Assessment

As a part of regular risk management assessments during due diligence and at gate reviews, all Assets, in the context of their Asset, must evaluate risks relevant to these Performance Standards. Asset management must then apply these Standards as appropriate to their Asset and activities.

The risk management cycle must be managed in accordance with the relevant Standards relating to risk management.

Assets must identify the critical controls used to manage Material risks, assess their adequacy, assign Accountability and Responsibilities for their implementation and verify their effectiveness as part of their critical control management.

Legal Requirements

All Assets must track regulatory requirements and legally binding commitments and ensure that required actions are scheduled, actioned, monitored and closed out. Records required to be retained under legislation must be stored in a central location.

At a minimum, all Assets must meet legislative requirements. However, if OZ Minerals' Standards impose additional requirements, then Employees and Contractors must meet both the legislative requirements and the additional requirements of OZ Minerals' Standards.

Training and Competency

All Employees and Contractors must be inducted and trained in the relevant hazards and controls prior to undertaking any work.

Appropriate training and competency assessments must be undertaken. Records relating to training and competency assessments must be documented and maintained. Additional requirements, if applicable, are detailed in the specific Standards.

All Assets must provide their Employees, Contractors and Visitors with a fit-for-purpose induction appropriate to the local sensitivities, risks and expected behaviours.

Induction training in the hazards associated with a particular Asset shall be included for new personnel where there is a potential for exposure to this hazard.

Documentation

Relevant documentation verifying compliance with the Standards must be kept in accordance with the relevant Document Controls Standards and relevant legal requirements.

Performance

All Assets must periodically, as determined by a Risk Assessment, conduct an audit of their compliance to the OZ Minerals Standards to ensure elements are understood and applied at a local level.

The performance of Company-owned Assets will be assessed against the requirements of the OZ Minerals Standards by the Company at a minimum of every three years according to the Assurance Process. Actual performance measures against each element of the Standard will vary according to local context, and guided by supporting guidelines and procedures.

Purpose

The purpose of this Standard is to define the OZ Minerals requirements to manage the threats associated with:

- Energy sources and the requirements for isolation prior to task commencement;
- Activities requiring a documented work plan or permit-to-work;
- Unintentional contact with moving parts on plant and equipment.

Performance

Assets must:

Design and Operation of Plant and Equipment

- Where practicable, eliminate the requirement for guarding in the equipment design phase. Safeguarding must be in place where personnel are not adequately protected;
- Where guarding is assessed as insufficient to protect personnel, provide an interlock system;
- Design guarding and interlock systems through a risk-based engineering process which shall not be altered or modified without a formal documented risk management process;
- Ensure plant and equipment safeguards comply with local legislative requirements and relevant Australian Standards and have a formal inspection regime to ensure their integrity;
- Ensure all manually operated rotating equipment has fail-to-safe switches or devices installed;
- Ensure plant is not operated with guards or interlocks removed or isolated unless under an isolation procedure or documented work plan;
- Ensure all equipment that utilises hazardous energies is designed to be isolated using a lock out system which includes methods for positive verification of isolation.

Isolation or Documented Work Plan Requirements

- Implement an Isolation Procedure which will include, as a minimum, the following:
 - Identification and documentation of all stored energy threats which could impact the planned activity;
 - Implementation of documented controls to manage hazards through isolation points with unique identifiers;
 - Implementation of equipment "Lock Out" and "Out of Service" systems;
 - Documented system to control isolations which span multi-shift handovers;
 - Management of isolations for interacting with simultaneous activities;
 - Definition of safe zones for Remote or Autonomous equipment;
 - Positive testing for "Proof of Isolation" and "Test for Dead";
 - Authorisation system to approved task and to manage change by an accountable person;
 - Documented system to return the plant or equipment back to normal operations.
- Implement a Documented Work Plan Procedure which will include, as a minimum, the following:
 - Preventative controls for all threats associated with the planned activity;
 - A System to control software overrides, hard-wire bridging or interlock bypassing;
 - Authorisation system for approving tasks and managing change by an accountable person;
 - A system to return the plant or equipment back to normal operations;
 - Incident response plan.

Training and Competency

- Include fit-for-purpose isolation training as part of general inductions and task-specific training;
- Establish training and competency requirements for all users and officers of the Isolation system.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats associated with fixed and mobile equipment.

Performance

Assets must:

Equipment Specifications

- Assess all mobile equipment, including contractor and sub-contractor vehicles, for suitability prior to use on the Asset to ensure their suitability for the task required and for compliance with minimum requirements;
- Ensure all vehicles are fit for purpose and fitted with:
 - Fixed seats and safety belts for the driver and all passengers;
 - A speedometer or like means of informing operators of the vehicle's speed.
- Ensure all cranes and man-lift equipment:
 - Complies with local legislative requirements and/or relevant Australian Standards;
 - Passed inspection and certification requirements prior to site access.

Design, Construction and Operations

- Ensure all roadways are designed, constructed and maintained based on the type of mobile equipment using them, the frequency of use, speed limits, environmental conditions and hazards. Roadways must have appropriate signage, and be regularly inspected and maintained to ensure ongoing compliance with design criteria;
- Prepare a "**Traffic Control Management Plan**" for the Asset which includes all threats and controls identified in the risk assessments associated with operation of vehicles and mobile equipment. The Plan must include isolated and remote journey plans, traffic rules, tyre and rim safety and appropriate prestart requirements. It must be stated that drivers must not use mobile phones while driving, except hands free;
- Implement preventive maintenance and inspection programs which take into account the equipment's service life and duty, with consideration of the installed monitoring program and the OEM recommendation, and maintain records of inspection, maintenance, damage and outstanding work.

Remote Control and Automated Equipment

- Implement procedures to mitigate threats to personnel from the hazards of remote-controlled and automated mobile equipment. Persons shall not enter an area where this type of equipment is in use.

Crane and Lifting Equipment Operations and General Requirements

- Operate, maintain, inspect, test and certify all cranes and lifting equipment used on the Asset;
- Use trained, competent and licensed operators for the lifting operation;
- Develop clear criteria for what constitutes a complex lift. Note that all complex lifts require a documented lift plan that identifies and mitigates threats;
- Implement a process to eliminate the threat of sling roll-out from the hook;
- Provide operating manuals and load charts in a language understandable to the crane operator;
- Ensure no equipment is modified without an appropriate certified engineering design (an OEM's approved engineering design) and only in conjunction with a formal risk assessment.

Training and Competency

- Ensure that all personnel required to maintain and/or operate fixed or mobile equipment are appropriately trained, competent and licenced. The frequency of assessment must be annual at a minimum, commensurate with the threat, or derived from a risk assessment for each vehicle or equipment type.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats associated with electricity and electrical equipment.

Performance

Assets must:

- Ensure that purchased electrical equipment complies with Australian and/or appropriate National Standards;
- Ensure all electrical installation work is conducted by competent personnel in accordance with governing regulation, code, design criteria and safe work procedures.

Electrical Equipment

- Ensure electrical safety devices are installed on all final distribution circuits with settings established by trained, competent and licensed personnel;
- Ensure electrical safety devices and equipment are inspected and/or tested on a suitable schedule and the findings recorded;
- Implement and maintain a system for removing electrical equipment that is unfit or unsafe for purpose;
- Implement and maintain a system for maintaining current single line diagrams with supporting documentation showing system fault calculations, equipment details, electrical protection discrimination curves and cable ratings.

Isolation and Access

- Ensure equipment is isolated in accordance with the Asset Isolation procedure;
- Ensure all energised electrical work has a documented work plan;
- Ensure all electrical panels, enclosures, control centres, substations and equipment are appropriately guarded and labelled as 'controlled areas', and access is restricted to authorised personnel. Any work performed in these areas must have a documented work plan;
- Ensure any untrained personnel accessing a controlled area is accompanied by an authorised person;
- Implement and maintain a system to mitigate the hazards associated with working in close proximity to overhead and buried power lines to prevent contact by personnel or equipment;
- Implement and maintain a system and a procedure for defining the boundaries, interfaces, coordination requirements and safety principles to be observed when switching (operating) high voltage electrical equipment;
- Ensure the isolation, access, maintenance or repair of any high voltage equipment is performed by an authorised high voltage operator under a documented work plan;
- Prohibit access to electrical cabinets or enclosures with exposed energised terminals in excess of 1,000 volts;
- Install a grounding system where sparking or lightning hazards are identified, and ensure it is inspected and tested regularly;
- Develop, implement and maintain a system and a procedure for lightning detection for the protection of people and equipment.

Training and Competency

- Ensure Employees and Contractors working on electrical systems are competent and licensed or meet statutory requirements.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats associated with working at heights.

Performance

Assets must:

- Ensure new plant and equipment is designed to prevent the threat of falling;
- Ensure tasks are planned to minimise the need to work at height.

Fall Prevention Program

- Minimise and manage work at height where there is a potential to fall or where there is the risk of dropped objects from the work being performed;
- Ensure processes are in place to provide a secure working area with suitable strength, floor security, railings or solid barriers, toe boards and barriers to prevent material falling;
- Where provision of a secure working area is not reasonably practicable, ensure Employees and Contractors use full body harness fall arrest or fall restraint equipment attached to suitably-designed anchor points;
- Ensure fall arrest or fall restraint equipment has double acting snap-hooks and achieves 100 percent tie-off 100 percent of the time;
- Ensure all work conducted at heights is performed under a documented work plan which adequately covers:
 - Anchor points;
 - Equipment inspection prior to commencing tasks;
 - Emergency evacuation plan for suspended person and escape route methodology;
 - Fall zone protection from failing objects.

Training and Competency

- Ensure Employees and Contractors are trained and competent on the hazards (including emergency procedures) and the selection, inspection, maintenance and use of fall prevention equipment;
- Ensure all personnel who erect or dismantle scaffolds and/or operate mechanical lifting/access devices, are appropriately trained and competent.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats associated with confined spaces.

Performance

Assets must:

Design and Manufacture

- Where practicable, select equipment, structures or constructions that are designed to eliminate the need for personnel to enter a confined space;
- Maintain a register/inventory of all confined spaces at the Asset and update annually and when new equipment or facilities are commissioned;
- Identify and erect permanent signage at the entry points to confined spaces denoting that a documented work plan is required prior to entry. Where signage is impractical other means of highlighting the threat, such as barriers, must be used.

Pre-Task Assessment

- Conduct a documented work plan prior to any confined space task commencing with the aim of minimising or eliminating the need to enter the confined space as the first consideration. No person shall work alone or enter a confined space without a documented work plan. The documented work plan must include:
 - A risk assessment, including the need for a competent person to assess hazards;
 - A continuous gas detection capability for oxygen levels, flammable gas concentrations and noxious gases;
 - Isolation procedures for contaminants and other energy sources;
 - The requirement for breathing apparatus;
 - The sign-in and sign-out of all persons entering the confined space;
 - Display of the confined space permit;
 - Communication process between the personnel within the confined space and the sentry;
 - Barricading requirements;
 - Rescue plan and equipment;
 - Standby sentry; and
 - A completion procedure.

Sentries and Confined Space Rescue Plans

- Ensure a confined space rescue plan is developed by the on-Asset Emergency Services personnel before entry to the confined space;
- Ensure a sentry is present when work is undertaken in a confined space and that the sentry holds a copy of the confined space rescue plan;
- Ensure communication and, where practicable, observation is constantly maintained between those in the confined space and the sentry.

Training and Competency

- Ensure that all personnel required to work in a confined space are trained in the Confined Space requirements and, where required, are trained, competent and licensed to perform their work.

Purpose

The purpose of this standard is to define the OZ Minerals controls required to manage the threats associated with falls of ground in underground mining, surface mining, at stockpiles, storage facilities, dam walls, waste rock dumps, trenches and similar locations.

Performance

Assets must:

Mine Planning

- Develop, implement and maintain an authorised “**Ground Control Management Plan**”, which has been prepared by a competent person incorporating the best available knowledge, and includes a Trigger Action Response Plan (TARP);
- Ensure the Ground Control Management Plan addresses the following requirements, as a minimum:
 - Describes effective equipment and mining methods to separate and protect personnel from unsecured ground;
 - Sets standards for the quality of ground support materials and the means for assuring the integrity of their installation, including frequency of examination and methods for repair;
 - Identifies how planned and unplanned changes to ground conditions will be actioned and communicated to affected personnel;
 - Sets standards for the monitoring and analysis of ground condition data, excavation stability and the effectiveness of ground support.
- Undertake an annual review of the Ground Control Management Plan.

Training and Competency

- Ensure all personnel required to work where a Ground Control Management Plan is required will receive training in the implemented ground control measures and have a thorough knowledge of the plan.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats related to the storage, transportation, handling and use of explosives.

Performance

Assets must:

Explosive Selection, Purchasing and Receipt Control Systems

- Implement systems for the selection, purchasing, receipt and inventory control of explosives;
- Maintain full compliance with local legislative requirements and relevant Australian Standards and explosives manufacturer's requirements, whichever is the more stringent.

Explosives Management Plan

- Ensure the transport, storage and usage of explosives and initiating components is only performed by trained, competent and authorised Employees and Contractors in strictly managed and controlled environments for the security of explosive materials and protection of personnel;
- Ensure explosives are addressed within the Asset or operations security plans;
- Develop, implement and maintain an authorised "**Explosives Control Management Plan**", which has been prepared by a competent person incorporating the best available knowledge, and includes a Trigger Action Response Plan (TARP);
- Ensure the Explosives Control Management Plan addresses the following requirements, as a minimum:
 - Defined processes for management of all stages of operations involving the use, transportation, storage, handling and disposal of explosives;
 - Defined training and competency requirements for transport, storage, handling and usage of explosives and initiating components;
 - Documented process for control access to areas of blasting activity, including clearance zones for potentially affected areas;
 - Documented process for mitigating the hazards of equipment operating in the vicinity of loaded holes, misfires or explosives remnants;
 - Documented process for management of simultaneous operations where use of explosives is involved;
 - Documented Emergency Response arrangements when explosives are involved;
 - Documented process for managing the threat of misfires and the destruction of old explosives;
 - Documented process for identifying and managing the hazards of blasting in hot or reactive ground.
- Undertake an annual review of the Explosives Control Management Plan.

Training and Competency

- Ensure that personnel who fire explosives have the statutory required qualifications and certifications, are competent and regularly undergo re-assessment of competencies;
- Ensure magazine keepers and all personnel who handle explosives are competent, authorised and recorded by the Mine Manager;
- Ensure induction training in the hazards of explosives is included for new personnel where there is a potential for exposure to explosive products.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the prevention of fires and control the threat of fires.

Performance

Assets must:

Fire Threat, Prevention and Mitigation

- Ensure fire threat and prevention is part of the Asset risk assessment process and based on:
 - A survey of each location of potential fire threat on the Asset;
 - Identification of potential fuel loads/ignition sources in each location;
 - Assessment of fire impact;
 - A review of controls to achieve the objectives of prevention and detection, and strengthen emergency preparedness programs.
- Ensure all hot work has a documented work plan;
- Ensure all flammable waste and flammable products are disposed of properly and safely;
- Develop, implement and maintain a Fire Mitigation Plan utilising the best available knowledge and incorporating a Trigger Action Response Plan (TARP), and incorporate the Fire Mitigation Plan into the Asset Emergency Management Plan.

Fire Prevention Equipment

- Install fire detection equipment, such as fire alarms, heat detectors and smoke detectors, in compliance with local legislative requirements and relevant Australian Standards, whichever is the more stringent;
- Place fire detection equipment in additional locations due to activities, equipment or construction as required by a risk assessment;
- Install fire protection equipment, such as fire extinguishers, doors, panels, sprinkler systems, hydrants, hose installations, deluge systems and foam injection systems, in compliance with local legislative requirements and relevant Australian Standards, whichever is the more stringent.

Inspections, Testing and Maintenance

- Regularly inspect and test fire detection, suppression and protection equipment to ensure that the equipment is accessible, available, and operable at all times;
- Include all fire protection equipment in preventative maintenance programs and implement a process to document all inspection, testing and maintenance results;
- Ensure all fire alarms are classified as the highest level alarm and will receive immediate response.

Training and Competency

- Ensure all Employees and Contractors are competent in the use of basic fire-fighting equipment, basic fire prevention methods, emergency procedures, and the handling and storage of flammable and combustible substances.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threats associated with aviation activities and the use of aircraft by Employees, Contractors and Visitors.

Performance

When aviation services are being conducted or contracted for the exclusive benefit of OZ Minerals Employees, Contractors and/or Visitors, the Flight Safety Foundation Basic Aviation Risk Standard is used as the minimum requirement.

Assets must:

- Nominate a manager to be responsible for the implementation of this Aviation Standard;
- Prior to the use of any aviation operations, obtain approval from the Head of Human Resources.

Safety Audits

- Ensure aircraft charter companies/operations are audited by an approved aviation safety consultant prior to using their services.

Chartered Flights

- Ensure the following critical controls have been verified:
 - Aircraft operators providing casual charter flights have been audited by a competent person and approved by OZ Minerals prior to use;
 - The aircraft is appropriate for the activity and suitably equipped. The aircraft must be fitted with dual controls and be operated by two qualified pilots who are fit for work and have the appropriate licences and experience;
 - Fuel used is of acceptable quality and quantity for the activity;
 - The weather is being monitored and the forecast is appropriate for the activity and operating environment;
 - The airstrip and infrastructure is of acceptable design and condition for take-off and landing;
 - A written contract or letter of agreement is in place prior to the commencement of the flight carried out.

Manned Airborne Surveys and External Load Operations

- Ensure all manned airborne surveys and external load operations are undertaken by a competent person and adhere to all statutory requirements and OZ Minerals' aviation and lifting requirements;
- Undertake a risk assessment prior to conducting airborne surveys and external load operations;
- Where Employees or Contractors are to be on-board the aircraft, undertake a safety audit of the operator prior to their first use.

Aircraft Operating on OZ Minerals' Controlled Assets

- Ensure commercial and logistic activities, such as tendering, airfield construction, aircraft refuelling systems and passenger handling, are managed by an experienced, competent person with guidance from relevant experts, as appropriate.

Personnel Travel

- Place restrictions on the number of Executive Directors and senior leaders from one operation who can travel on the same aircraft, as deemed appropriate.

Purpose

The purpose of this Standard is to define the OZ Minerals controls required to manage the threat of inundation due to, but not limited to, overflow or failure of storage facilities, levies and dam structures due to extreme weather, geological event, and failure or blocking of flow channels (either regular, overflow or emergency).

Performance

Assets must:

Inundation Control Management Plan

- Develop, implement and maintain an authorised “**Inundation Control Management Plan**” which has been prepared by a competent person, and incorporates the best available knowledge for mine planning, design and scheduling;
- Ensure the Inundation Control Management Plan incorporates all potential inundation sources and the controls identified in the risk assessment, and includes a Trigger Action Response Plan (TARP);
- Regularly review the Inundation Control Management Plan to ensure emerging hazards are controlled;
- Conduct a non-regular review prior to entering any new mining area or previously deactivated area;
- Implement a system for gathering required information through old plans or new cover drilling techniques;
- Review the system and the Inundation Control Management Plan if drilling or other information indicates any of the significant assumptions about the inrush hazards are incorrect;
- Perform an audit of the system to check compliance to the Inundation Control Management Plan;
- Investigate any event either causing inundation or inrush or having the potential to cause inundation or inrush as a significant incident;
- Undertake an annual review of the Inundation Control Management Plan;
- Ensure an independent expert reviews the plan on a regular schedule.

Training and Competency

- Ensure all Employees and Contractors are trained on the inundation hazards, risks and control measures.