

GUIDELINE

Effective safety and health supervision in Western Australian mining operations



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Government of **Western Australia**
Department of **Mines and Petroleum**
Resources Safety

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Further details of publications produced by Resources Safety can be obtained by contacting:

Resources Safety — Safety Communications

Department of Mines and Petroleum
100 Plain Street
EAST PERTH WA 6004

Telephone +61 8 9358 8002 (general queries)
+61 8 9358 8154 (publication orders)

NRS 13 36 77

Facsimile +61 8 9358 8000

Email ResourcesSafety@dmp.wa.gov.au
(general queries)

RSDcomms@dmp.wa.gov.au
(publication orders)

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Guidelines

A guideline is an explanatory document that provides more information on the requirements of legislation, details good practice, and may explain means of compliance with standards prescribed in the legislation. The government, unions or employer groups may issue guidance material.

Compliance with guidelines is not mandatory but they could have legal standing if it were demonstrated that the guideline is the industry norm.

Who should use this guideline?

This guideline should be used as a resource by mine management and frontline supervisors. It highlights the importance of frontline supervision within workplace safety and health systems, and the role of management in achieving effective supervision.

Acknowledgement

This guideline was developed through consultation with industry. In particular, Sections 3.2, 3.3 and 4 and Appendix 2 reflect workshops at the 2012 Mines Safety Roadshows presented by the Department. Early drafts were based on Queensland Guidance Note 14: Effective safety and health supervision, published by the Queensland Department of Natural Resources and Mines in 2008.

Foreword

This guideline is issued by Resources Safety under the *Mines Safety and Inspection Act 1994*, and has been endorsed by the Mining Industry Advisory Committee (MIAC).

The Act

The *Mines Safety and Inspection Act 1994* (the Act) sets objectives to promote and improve occupational safety and health standards within the minerals industry.

The Act sets out broad duties, and is supported by regulations together with codes of practice and guidelines.

Regulations

The Mines Safety and Inspection Regulations 1995 (the regulations) provide more specific requirements for a range of activities. Like the Act, the regulations are enforceable and breaches may result in prosecution, fines, or directions to cease operations and undertake remedial action.

Standards

Although specific versions of Australian and other standards may apply under the regulations, references to standards in this guideline are undated and it is good practice to consult the latest versions where applicable.

Application

The provisions of this guideline apply to all mines as defined in section 4(1) of the Act.

Note: This guideline does not cover the process for statutory appointments (such as those under section 44 of the Act) nor daily management requirements.

1 Introduction

1.1 Importance of supervision

Supervision is a fundamental safety function applicable within all levels of an organisation. It complements the provision of information, instruction and training, and influences how well organisations achieve the safety and health objectives of the *Mines Safety and Inspection Act 1994* (the Act). Effective supervision sets and maintains high standards of performance and the physical aspects of the work environment, and is critical to achieving and maintaining the desired safety culture.

Effective management and supervision can only be achieved through a multi-tiered, team approach where each level of the organisation plays a part in implementing the overall safe systems of work. Supervisors depend on direction and support from middle and senior management, as well as the involvement of the workers and contractors they direct.

Ineffective supervision may be reflected in changing parameters such as:

- poor or decreasing productivity
- high staff turnover
- increasing rates of absenteeism
- increase in unwanted events
- lack of improvement or deterioration in safety performance indicators.

Other signs of ineffective supervision can include:

- low team morale
- poor housekeeping
- lack of understanding of supervisor's role
- inconsistency in overall understanding and application of safe work practices.

A Department of Mines and Petroleum review of mining fatality reports from 2000 to 2012 for Western Australia showed that workers within the first two years on a job were at highest risk of a fatal accident, particularly where the supervisor had less than three years' experience in the role. In many of the fatal incidents, work was being undertaken largely unsupervised or outside the scope of established procedures. These findings are consistent with the outcomes of Departmental investigations of serious incidents.

1.2 Structure of guideline

This guideline is designed to provide a quick reference for those involved in frontline supervision.

Chapter 2 discusses the organisational elements and resourcing considerations that support effective supervision.

Chapter 3 discusses the desirable competencies of an effective frontline supervisor.

Chapter 4 describes management and supervisory aspects.

Appendices 1 to 3 show examples of the risk-based approach to safety management, and lists the actions and interactions that influence management and supervision practices in an organisation.

Appendix 4 identifies some useful resources.

Note: This guideline covers frontline supervisory functions and activities, not statutory appointments or daily management coverage.

1.3 Terminology

Management is used in this guideline to mean representatives of the principal employer, being the proprietor, lessee or occupier of the mine who has overall control and supervision of the mine.

Although there is a legislative definition of supervisor in relation to underground mining operations and quarries (see section 4 of the Act), frontline supervisor is used in this guideline to mean someone who has the authority to instruct

others in how to undertake a task. This may include the assigned supervisor as well as other roles such as leading hand, team leader and superintendent.

A competent person is someone appointed or designated by the employer to perform specified duties that the person is qualified to perform by knowledge, training and experience.

2 Organisational aspects

2.1 Legislative framework

The *Mines Safety and Inspection Act 1994* sets objectives to promote and improve occupational safety and health for people who work in mining operations in Western Australia. It imposes a general duty of care to maintain safe and healthy workplaces at mines, and protect people at work, and others entering or adjacent to the mine, from hazards.

The Act and associated Mines Safety and Inspection Regulations 1995 (the regulations) describe the duties and responsibilities of relevant personnel for the management and supervision of mining operations. The principal employer, employers, responsible persons and management appointments must provide and maintain a safe working environment, so far as is practicable, to prevent workers being exposed to hazards that could cause injury or harm. A controlled work environment, competent people, fit-for-purpose equipment and safe work practices combine to reduce risks to health and safety in the workplace.

All employees have a general duty of care to ensure their own safety and health at work. They also have a general duty of care towards others to ensure their actions, including failure to act, do not put others' safety and health at risk.

The employee's duty to avoid causing harm to others may place greater responsibilities on managers and supervisors. For managers and supervisors, the range of people who may be affected by their decisions on safety and health matters could be extensive.

The principal employer must provide sufficient resources for the mine processes to be planned and operated safely, and in accordance with the Act and regulations.

The principal employer is also required to make key statutory appointments to establish clear safety accountability. These appointments cover the daily control and supervision of the mine, and are accountable for ensuring that regulatory requirements and the principal employer's policies and procedures are followed.

Additional management appointments may be made to assist in maintaining compliance with the Act. Under the duty of care provisions, supervision must be provided for those carrying out work at the mining operation.

2.2 Resourcing considerations

The level of supervision at a mining operation needs to be appropriate to the:

- scale and complexity of the operation
- hazards likely to be encountered
- potential exposure to hazards and severity of consequences.

For example, where the hazards and associated risks are significant, and controls to effectively reduce exposure are limited, the workforce will require closer supervision.

Mining operations range from exploration, small mines and quarries to large diverse operations with multiple sites, some with a significant contract workforce. Consequently, each site should undertake a risk assessment to determine its specific resourcing, training and skill needs for the effective supervision of all workers.

Matters to consider when determining the adequacy of resourcing include:

- geographical spread of workplaces, workers and activities
- tasks to be supervised
- roster cycle and shift coverage
- interaction between multiple workgroups and contractors
- availability of proven work procedures
- administrative activities that take supervisors away from directly supervising workers.

Management should also consider the need to provide continuous direct supervision for:

- critical tasks that can result in serious injury if hazards are not identified and effectively controlled
- unproven or unfamiliar work procedures
- equipment undergoing commissioning
- workers with a lower level of competency, including inexperienced workers, new starters and apprentices.

For multiple workers and workgroups, an upper limit on the number to be supervised by an individual supervisor should be considered.

Companies need to have contingency plans to cover the absence of frontline supervisors.

When changes are planned, the effects on supervisory requirements needs to be considered and addressed before changes are made.

3 Developing competent supervisors

3.1 Desirable competencies

Regardless of the operational setting, competent supervisors understand:

- the organisation and its goals
- the work they supervise
- the people they supervise.

A broad range of competencies apply to frontline supervisors, including the ability to:

- communicate clearly
- implement and monitor the site's safety and health programs, policies and procedures to meet legislative and corporate requirements
- identify hazards and apply risk management processes to the work they are supervising
- develop work priorities
- coordinate resources
- develop teams and individuals
- show leadership in the workplace
- establish effective workplace relationships
- investigate accidents and incidents.

Although supervision is typically seen as an individual's job, changing work practices mean that it is not always easy to identify the assigned supervisor. Frontline supervision may be delivered by one or more individuals within or external to a team. Team members who undertake a leading hand role, oversee trainees or act as a competent person when carrying out inspections also perform supervisory functions and require assessment of their competency as a supervisor.

3.2 Training needs analysis

Training and ongoing professional development should be used to develop, maintain and improve supervisory skills.

A training needs analysis will help identify the training requirements for organisations, groups, positions or individuals. It should be conducted in consultation with relevant personnel (e.g. managers, supervisors). The analysis should identify:

- required competencies, training needs and skill gaps
- skills for future development
- desired skills to be assessed during recruitment.

Depending on the individual supervisor's capabilities, training may be required in areas such as:

- task instruction
- hazard identification and risk evaluation
- team building and leadership
- time management
- running meetings
- information gathering and report writing
- incident investigation
- providing feedback
- conflict resolution
- emergency management.

Once gaps in training and assessment have been identified, an effective training solution can be developed and implemented.

4 Supporting frontline supervisors

4.1 Introduction

Frontline supervisors are the direct link between management and the workforce. They are responsible for following the directions of management, implementing the site's safety and health management systems, and supporting the organisation's safety culture.

Appendices 1 to 3 list some elements of management and supervision that influence how well safety functions are implemented and maintained throughout an organisation.

4.2 Management's role

Management support for frontline supervisors is critical. Matters that should be addressed include:

- ensuring those with supervisory responsibilities know what is expected of them, including understanding and acting in accordance with
 - legislative requirements
 - the organisation's safety and health policy and safety performance indicators
 - organisational and task-specific procedures and requirements
 - the risks identified in the risk register
 - their area of responsibility
 - management of contractors
- identifying and rectifying gaps in the knowledge and skills of supervisors, including
 - understanding the specific hazards of their work processes
 - improving supervisory skills such as leadership, communication, managing people and managing resources

- ensuring workers being supervised understand the risks associated with the work environment and measures required to effectively control those risks
- ensuring the control measures to eliminate or reduce exposure to hazards are effective, current and being properly used, maintained and monitored
- providing administrative support and streamlining requirements (i.e. reports, meetings) so the focus is on direct supervision
- monitoring the effectiveness of supervision to allow early detection of developing issues so appropriate assistance or intervention can be effected.

Setting a management standard for supervision will help to underpin the process of developing supervisors to ensure they reach that standard of competency.

Any new supervisor should be provided a suitable period to familiarise themselves on site with:

- work areas
- facilities
- day-to-day operations
- operational contingencies
- actions to take in an emergency.

4.3 Supervisory issues

The actions and behaviours of supervisors will influence the safety and health of workers, as well as the working environment. Having insufficient or inexperienced supervisors can lead to situations that increases risk to workers.

Workers are put at risk when deficiencies with individuals, equipment, training or other safety aspects are known to the supervisor but are allowed to continue. An effective supervisor will:

- provide relevant up-to-date information and instruction
- monitor workgroup activities
- not permit unauthorised deviation from site procedures, whether by act or omission

- manage fitness for work
- identify and rectify hazards
- identify and address at-risk and inappropriate behaviour
- report incidents, including near misses, and injuries
- report potentially hazardous situations to management so the adequacy of control measures can be assessed and addressed as necessary.

The need to achieve production targets and deal with situations such as equipment breakdowns may lead to decisions that put workers at risk. An effective supervisor will:

- match workers and work teams to jobs
- provide adequate pre-start information
- manage workloads
- have contingency plans to minimise changes to priorities
- ensure workers know who their frontline supervisor is
- ensure equipment is fit for purpose and appropriately maintained
- stop a job to assess or reassess uncontrolled hazards.

Appendix 1 – Management and supervision practices – management

Managerial elements	Enabling actions
Leadership and accountability	<ul style="list-style-type: none"> • Accepts responsibility for safety and health leadership • Makes clear and strong commitment to pursue continuous improvement in safety and health • States corporate safety and health goals, and implements programs, policies and procedures • Understands supervision as critical management function and influence on organisational performance • Provides effective leadership in emergency situations
Resourcing	<ul style="list-style-type: none"> • Allocates adequate resources to meet legislative requirements and corporate commitments for safety and health, including supervision • Provides supervisors with sufficient time and resources to balance production demands with safety and health requirements • Ensures contractors are effectively supervised • Ensures equipment made available is fit for purpose
Training and competence	<ul style="list-style-type: none"> • Uses training needs analysis to determine competency and training requirements • Provides resources for training to meet identified requirements • Ensures system in place to assess and verify that workers, including supervisors, are competent to perform their duties • Ensures system in place so workers' competencies are known and accessible to management and supervisors • Monitors effectiveness and adequacy of training

Managerial elements	Enabling actions
Risk management	<ul style="list-style-type: none"> • Maintains site hazard register • Maintains the site's safety and health management system • Ensures hazards are identified and the hierarchy of control is understood • Implements higher order controls to eliminate or mitigate hazards • Implements systems to ensure work practices follow site rules and hazard controls are effective • Ensures the structure is in place for the risk register to be reflected in job risk analysis • Uses risk assessment to determine supervisory requirements • Monitors quality and effectiveness of workplace risk management tools
Operations	<ul style="list-style-type: none"> • Defines supervisory roles and limits of responsibility • Provides accurate job descriptions for workforce, including frontline supervisors
Consultation and involvement	<ul style="list-style-type: none"> • Ensures safety leadership is visible • Translates organisational values into practical safety and health activities • Maintains regular contact with frontline supervisors • Conducts the election of safety and health representatives as prescribed • Involves frontline supervisors and workforce representatives in the formulation and implementation of safety and health programmes, policies and procedures

Managerial elements	Enabling actions
Communication	<ul style="list-style-type: none"> • Delivers clear and accurate instructions • Maintains lines of communication and reporting between corporate management, frontline supervisors and workforce, including contractors • Promotes work environment in which frontline supervisors and workforce can raise safety and health issues without fear of ridicule or reprisal • Communicates learnings from accidents and incidents • Responds to reports of hazardous situations
Inspect, monitor, review and report	<ul style="list-style-type: none"> • Develops lag and lead key performance indicators (KPIs) • Monitors lag and lead KPIs and provides feedback • Systematically inspects and audits workplace systems, procedures, conditions and practices in their area of responsibility to ensure standards are met • Regularly reviews the effectiveness of safety and health management systems
Change management	<ul style="list-style-type: none"> • Identifies potentially significant change and considers related safety and health risks to develop a plan that minimises the risks • Manages organisational change and develops change management standards • Informs frontline supervisors and workforce representatives about organisational and workplace change
Regulatory compliance	<ul style="list-style-type: none"> • Ensures statutory compliance • Ensures appointment of statutory positions • Monitors statutory compliance and statutory position holders

Appendix 2 – Management and supervision practices – supervisors

Supervisory elements	Enabling actions
Leadership and accountability	<ul style="list-style-type: none"> • Understands and accepts role and responsibilities • Leads and manages their team using necessary and specific content knowledge • Observes and mentors workers for safe work outcomes • Commits to safety and health programs, meetings and training • Provides effective leadership in emergency situations
Resourcing	<ul style="list-style-type: none"> • Liaises with mine management to ensure availability of fit-for-purpose equipment • Ensures fit-for-purpose equipment is used • Supports role of safety and health representatives
Training and competence	<ul style="list-style-type: none"> • Knows workers' competencies • Assesses workers' competence to perform their duties • Utilises instruction and training system (including mentoring) to achieve competency needs
Risk management	<ul style="list-style-type: none"> • Monitors workplace and identifies and controls hazards in accordance with site rules and safe work practices • Confirms the operation's risk register reflects the risk analysis of jobs and critical tasks • Ensures work is carried out safely • Provides continuous direct supervision where required (e.g. critical tasks, unproven work procedures) • Refers new and changed circumstances not covered in site rules to management for further instructions • Ensures job risk assessment tools are used appropriately • Reports incidents to management

Supervisory elements	Enabling actions
Operations	<ul style="list-style-type: none"> • Allocates sufficient time and resources to effectively supervise workers • Effectively supervises contractors • Understands limits of responsibility • Understands workers' limits of responsibility • Conducts workplace inspections
Consultation and involvement	<ul style="list-style-type: none"> • Cooperates with management on safety and health matters • Consults with management and workers on safety matters • Involves workers in development of safe work procedures • Participates in job observations, inspections and investigations
Communication	<ul style="list-style-type: none"> • Delivers clear instructions to workers • Liaises with safety and health representatives • Communicates learnings from incidents • Listens and responds to safety and health concerns and issues
Inspect, monitor, review and report	<ul style="list-style-type: none"> • Reports to management on the state of the workplace conditions and practices • Undertakes inspections and audits
Change management	<ul style="list-style-type: none"> • Manages workplace change • Provides feedback to workers on workplace change • Liaises with mine management on emerging issues

Appendix 3 – Management and supervision practices – other frontline supervisors

For example, leading hand or team leader

Supervisory elements	Enabling actions
Leadership and accountability	<ul style="list-style-type: none"> • Understands and accepts role and responsibilities • Complies with the management instructions on safety and health • Provides effective leadership in emergency situations
Resourcing	<ul style="list-style-type: none"> • Ensures fit-for-purpose equipment is used
Training and competence	<ul style="list-style-type: none"> • Knows work group's competencies • Confirms group members are competent to perform their duties
Risk management	<ul style="list-style-type: none"> • Identifies and controls hazards in accordance with site rules • Coordinates group to ensure work is carried out safely • Provides input into job risk analysis • Refers new and changed circumstances not covered in site rules to assigned supervisor for further instructions and approval • Reports incidents to supervisor
Operations	<ul style="list-style-type: none"> • Understands limits of responsibility
Consultation and involvement	<ul style="list-style-type: none"> • Cooperates with supervisors on safety and health matters • Consults with supervisor on safety and health matters • Provides input into development of safe work procedures

Supervisory elements	Enabling actions
Communication	<ul style="list-style-type: none"> • Delivers clear instructions to group • Listens and responds to safety and health concerns and issues
Inspect, monitor, review and report	<ul style="list-style-type: none"> • Reports on the state of their work area
Change management	<ul style="list-style-type: none"> • Provides feedback on implementation of workplace change

Appendix 4 – Further information

This list is provided for general information and illustrates the variety of resources available.

Department of Mines and Petroleum, www.dmp.wa.gov.au/ResourcesSafety

- *Frequently asked questions on management and supervision at mining operations – information sheet*
- *Frequently asked questions on appointments on Western Australian mines – information sheet*
- *Fatal accidents in the Western Australian mining industry 2000-2012 – What lessons can we learn? – report (2014)*
- *Management and supervision workshop, Resources Safety Matters, vol. 1 no. 1 (January 2014), p. 10*

Department of Commerce www.commerce.wa.gov.au/worksafe

- Checklists for inspecting the workplace

Department of Natural Resources and Mines, **Queensland** mines.industry.qld.gov.au

- *Guidance Note QGN14: Effective safety and health supervision (2008)*

WorkSafe Victoria www.worksafe.vic.gov.au

- *Safety supervision – Creating an environment for effective supervision – guidance note (2011)*
- *Safety supervision – Supervising workers with specialist knowledge or skills – guidance note (2011)*

OHS Body of Knowledge

www.ohsbok.org.au

SkillsDMC National Industry Skills Council

www.skillsdmc.com.au

- RII Resources and Infrastructure Industry Training Package

Training.gov.au – National Register on VET in Australia

training.gov.au

- Training package details for RII - Resources and Infrastructure Industry Training Package, www.training.gov.au/Training/Details/RII

Health and Safety Executive (HSE), United Kingdom

www.hse.gov.uk

- Delivering effective arrangements, www.hse.gov.uk/managing/delivering/index.htm
- Providing supervision, www.hse.gov.uk/toolbox/managing/supervision.htm

Other resources

- HOPKINS, A., 2007, Lessons from Gretley: mindful leadership and the law: CCH Australia Ltd, Sydney, 174 pp.
- JOHNSON, C.N., 2002, The Benefits of PDCA, Quality Progress v. 35(5), p. 120: viewed 17 July 2014 <asq.org/quality-progress/2002/05/problem-solving/the-benefits-of-pdca.html>



Resources Safety

Department of Mines and Petroleum
100 Plain Street
EAST PERTH WA 6004

Telephone +61 8 9358 8002

NRS 13 36 77

Facsimile +61 8 9358 8000

Email ResourcesSafety@dmp.wa.gov.au

Website www.dmp.wa.gov.au/ResourcesSafety



Government of **Western Australia**
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