



Department
of Industry
Resources & Energy

Mine Safety Annual Report 2014-15





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Overview

About Mine Safety

Mine Safety carries out regulatory functions on behalf of the regulator (the Secretary of the NSW Department of Industry) in order to meet community and government expectations for the health and safety of mining industry workers.

Mine Safety is an integral part of the Compliance and Enforcement branch within the NSW Department of Industry, Division of Resources and Energy.

The Compliance and Enforcement function was established on 31 July 2014 to combine all compliance and enforcement activities across the Division of Resources & Energy and deliver the outcomes of the department's strategic plan.

The Compliance and Enforcement branch's operating framework is based on the Department of Premier and Cabinet's Quality Regulatory Services (QRS) initiative and aims to:

- promote a risk-based approach to compliance and enforcement; and
- require a greater focus on regulatory outcomes.

Compliance and Enforcement's functions include:

- monitoring overall industry compliance with legislation;
- identifying trends and emerging issues when developing compliance initiatives and programs; and
- determining the appropriate level of enforcement to be applied in cases of non-compliance.

Part of this function involves compliance with health and safety legislation. Three separate but highly integrated business units under Compliance and Enforcement are responsible for Mine Safety.

These are Mine Safety Operations, Mine Safety Performance and the Office of the Chief Inspector.

Other business units within Compliance and Enforcement also contribute to Mine Safety, including the Regulatory Audit and Investigation unit and the Strategic Compliance unit.

The Division of Resources & Energy's Strategy Policy & Coordination unit and Strategic Communications unit also contribute to Mine Safety.

In 2014-15 Mine Safety had 125 FTE staff working in 10 locations across NSW.

Mine Safety's goal is to improve the safety performance of the mining industry through a range of regulatory activities including:

- inspections, audits, investigations and verification of safety systems;
- the collection, reporting and dissemination of data;
- providing specialised technical and engineering services;
- providing information and education to duty holders; and
- authorising activities, equipment, materials and substances for use.

In 2014-15 Mine Safety regulated activities at:

- 83 coal mines and preparation plants;
- 85 metalliferous, 2476 extractive and 128 other mines;
- 118 coal, 377 metalliferous, 196 extractive and 185 other exploration licences; and
- 25 petroleum and geothermal titles.



A Mine Safety inspector at a minesite.

Overview

About the Mine Safety levy

The *Mine Safety (Cost Recovery) Act 2005* (the Act) establishes the Mine Safety fund. The contributions to the fund by mining industry employers are commonly referred to as the mine safety levy, although the word 'levy' is not used in the legislation. It is charged by the NSW Government to pay for health and safety regulation of the state's mining and petroleum workplaces.

The Act established the Mine Safety fund in December 2005. The legislation followed the NSW Wran Mine Safety Review provided to the NSW Government in February 2005.

The levy applies to employers in the mining industry who have obligations under mine safety legislation (see box) for the health and safety of workers. The levy is collected by the workers compensation insurers of mining industry employers and transferred to the NSW Department of Industry.

The Act mandates that the fund can only be used to meet specified expenses incurred by NSW Department of Industry in carrying out:

- regulatory activities connected with mine safety legislation, the Explosives Act 2003 and Radiation Control Act 1990;
- expenses incurred in the administration or execution of the mine safety legislation, the Explosives Act 2003 and Radiation Control Act 1990; and
- administrative expenses related to the fund.

The *Mine Safety (Cost Recovery) Regulation 2013* requires the Secretary of the NSW Department of Industry to publish a report (this report) containing an overview of payments made from the fund. It must be published within six months after the end of the financial year on the Division of Resources and Energy website.

Administering the levy

To ensure mine safety levy funds are administered appropriately and in accordance with the Act, business systems and practices are periodically

reviewed to ensure they demonstrate principles of good governance.

In addition, mine safety business planning processes underpin the determination of the annual mine safety budget. Robust business planning ensures the efficient allocation of resources for current and continuing mine safety programs and initiatives.

Payments into and out of the fund in accordance with sections 6 and 7 of the Act are captured within the department's financial accounting system.

To ensure these payments are in accordance with the Act, the mine safety levy accounts are periodically audited to ensure expenditure is in relation to mine safety regulatory activities and remedial action taken when necessary to reverse transactions.

Payments from the levy

The Mine Safety levy (the amount to be contributed to the mine safety fund) for the 2014-15 year was \$33.830 million. The financial report on pages 16-17 is an overview of payments made from the fund.

Mine safety legislation

Mine safety legislation means any of the following Acts and the regulations and other instruments made under them:

- *Mine Safety (Cost Recovery) Act 2005*;
- *Work Health and Safety Act 2011* to the extent that it relates to mining workplaces within the meaning of that Act;
- *Work Health and Safety (Mines) Act 2013*; and
- *Petroleum (Onshore) Act 1991*, to the extent that it relates to work health and safety requirements.



A Mine Safety inspector at a mine site.

Meeting our objectives

Effective and appropriate compliance and enforcement

Monitoring compliance

The objective of Mine Safety's compliance activity is to prevent fatal, serious and other injuries to workers and prevent incidents that may threaten the ongoing operation of mines in NSW.

Our compliance activity is guided by the Mine Safety Regulatory Strategy which aligns with the outcomes of the department's overarching strategic plan.

Mine Safety's compliance approach is continually evolving to take into account the changing nature of the industry including technological advances and community expectations and is risk based and outcomes focused.

The regulatory objectives of Mine Safety's compliance approach are to:

- ensure duty holder's compliance with health and safety legislation and departmental policies governing coal, mineral and petroleum activities;
- provide for a healthy and safe work environment for mineworkers resulting in zero deaths and a reduction in serious injuries occurring in the workplace;
- educate and provide guidance to industry and the community;
- demonstrate consistency in actions taken by Mine Safety;
- promote transparency in our decision making processes;
- conduct thorough and timely investigations of potential non-compliances or alleged breaches of legislation or policies; and
- exercise enforcement action in a professional, transparent and effective manner.

Mine Safety activities in 2014-15 included:

- 2689 assessments, including:
 - 1795 inspections;
 - 187 audits;
 - 176 investigations;
 - 292 incident reviews;
 - 116 explosion suppression assessments;
 - 53 safety management system reviews;
- 6 safety alerts;
- 5 safety bulletins;
- 2 investigation information releases;
- 4 investigation reports;
- 7 safety seminars and workshops;
- 5 mining codes of practice;
- 532 competence assessments;
- 10 competence assessment briefing sessions; and
- about 1800 technical assessments at the Mine Safety Technology Centre.

Mine Safety also published a range of legislation guidance and other materials and conducted numerous industry workshops.

Spotlight: being better prepared

During the year, Mine Safety's inspectors and mine safety officers underwent intensive training in emergency response and conducted the third annual mine emergency exercise, Red Flag 3.

Mining emergencies demand a coordinated response from a range of agencies and the department's Mine Safety inspectorate is usually one of the first to be notified.

The knowledge and experience of the department's inspectors form an integral part of an emergency response. Training in simulated emergency situations helps the inspectors to effectively handle the stressful circumstances encountered during mining emergencies.



Training in a simulated emergency situation.

Meeting our objectives

Effective and appropriate compliance and enforcement

Electrical safety programs

Mine Safety is striving for best practice by enabling explosion-protected plant, certified overseas under the IECEx scheme, to be used in mines in NSW.

NSW inspectors are officers of the International Electrotechnical Commission (IEC) schemes for electrical and mechanical mining equipment, meeting regularly to ensure that safety standards and systems are satisfactory.

This allows mines to use innovative products and reduces the duplication of certification costs to industry, without a reduction in safety to mine workers.

During 2014-15, Mine Safety continued its program of electrical assessments at metalliferous mine sites. These assessments were supported by regional electrical safety sessions for workers to help them identify and understand the dangers of poorly designed and maintained electrical systems.

More than 230 engineers and experts shared information on new and existing technologies to improve safety in NSW mines at a Sydney conference in November 2014.

The 24th annual Electrical Engineering Safety Seminar focused on 'staying connected through safety'. The seminar featured 22 presenters on a wide range of topics relating to improving safety in aboveground and underground mining situations.

Key presenter Dr Marvin Morris from the United States spoke about the effects of lightning on underground mines. The seminar provides an opportunity for professional collaboration, discussion and debate.

Mechanical safety programs

Mine Safety continues to play a leading role in reviewing, developing and maintaining mechanical engineering safety standards for the mining industry.

Key risk areas managed during 2014-15 by the department's mechanical engineering inspectors were:

- high pressure fluids;
- fit-for-purpose mechanical plant for use in explosive atmospheres;
- international fatality data analysis;
- diesel emissions;
- plant fires;
- mine winders and other lifting plant;
- mobile plant;
- drilling plant; and
- general plant safety.

Senior mechanical engineering inspector Peter Sunol spoke about standards and their impact on conveyors in Australia as well as recent updates to Australian Standard AS 1755 at the Conveyor Belt System Technical Conference in Melbourne. He addressed the history of conveyor fatalities and focused on appropriate conveyors.

More than 200 engineers and experts gathered at the 24th annual Mechanical Engineering Safety Seminar in Sydney during August 2014.

The theme for the event was 'Our dynamic workplace' and it provided an opportunity for the industry to come together and share information to improve safety performance.



Delegates at a Mine Safety seminar.



Effective and appropriate compliance and enforcement

Enforcement

Mine Safety has a range of tools at its disposal to enforce compliance where necessary ranging from warning letters to prosecution.

Mine Safety's decision to prosecute is not considered lightly. Prosecution is a discretionary action and is reserved for serious and significant breaches of legislation and regulations.

During 2014-15 the following enforcement actions were taken:

- 1251 advice/improvement notices;
- 116 prohibition notices; and
- 35 investigation notices.

Mine Safety staff, including inspectors, mine safety officers and investigators, regulate about 3650 active mineral and petroleum extraction, drilling and exploration operations.

Technical services

The Mine Safety Technology Centre conducted more than 1800 assessments during 2014-15.

These assessments included:

- pre-registration testing for a number of gas monitors and escape breathing apparatus;
- statutory pre-release testing and in-service testing of breathing apparatus;
- fire resistance and anti-static tests on materials including conveyor accessories, hydraulic hoses and brattice;

- diesel emission tests;
- certification of intrinsically safe electrical equipment; and
- licence applications for polymeric chemicals.

The Mine Safety Technology Centre worked on developing methods to better characterise diesel particulate emissions from mining engines.

These tests have now been incorporated into item registration test requirements.

Spotlight: safety awareness in opal mines

A renewed interest in opal mining has led to an increase in miners attending safety awareness courses run at Lightning Ridge.

The two-day courses during 2014-15 were fully booked with an extra course held in November to cater for the demand.

The majority of Lightning Ridge residents and long-term miners had already completed the course, with the increased numbers of attendees reflecting the interest in opal mining.

The course has contributed greatly to improved health and safety conditions at opal mines. A mineral claim cannot be registered by or transferred to anyone who has not completed the course, including those who may be experienced in other types of mining.

Testing equipment at the Mine Safety Technology Centre.



Meeting our objectives

Effective and appropriate compliance and enforcement

Spotlight: underground safety measures

The proposed new design and performance standards for diesel engine systems used in underground coal mines require appropriate functional safety regimes and measures to be in place.

These measures are designed to minimise the potential risk of igniting methane or coal dust and the potential risk of fire from the use of diesel engine systems and other plant.

To help industry meet these requirements, Mine Safety hosted a series of functional safety workshops for equipment manufactures and mine operators.

The workshops were held at the Mine Safety Technology Centre in Thornton, NSW, and looked at the two broad concepts of control measures - safety components and safety functions.

Equipment manufacturers workshops were held in November 2014 and February 2015.

A workshop for mine operators and end users was held in April and May 2015.

These workshops addressed introduction and application of functional safety concepts to mining plant.

A shaft sinking winder on a NSW mine site.



Industry standards and assessments

Mine Safety continued to play a leading role in reviewing, developing and maintaining Australian Standards for the mining industry. Five Standards were published and two mining electrical engineering safety handbook projects are in development.

The department's inspectors of electrical engineering also played a major role in the IECEx Australian mirror committee for the adoption of international Standards within Australia. This high level of active involvement by departmental inspectors was endorsed by the NSW Mine Safety Advisory Council.

Mine Safety inspectors also collaborated with industry working groups to update existing mining design guidelines as well as to develop a number of guidelines for new and emerging areas of technology. These documents provide a benchmark for industry good practice, engineering standards and fit-for-purpose mining equipment.

An increase in the number of design registered mine winders across the metalliferous and coal sectors led to the development and publication of a series of mine winder guidelines. Mine winders are considered high-risk plant, the failure of which has potential for multiple fatalities.

Subsidence engineering

Mine Safety subsidence engineers perform technical subsidence engineering and risk management work, and liaise with each underground coal mine, infrastructure owners and operators. These engineers comprise one of the few leading professional groups in the world with the capability to provide high-quality technical services to government, community and the mining industry.

The engineers undertook assessments related to the subsidence impacts of underground mining, and contributed significant regulatory management and technical leadership towards the successful management of the risks of longwall mining under the Sydney to Melbourne railway and Hume Highway.



Effective and appropriate compliance and enforcement

Investigations

During 2014-15, the Regulatory Audit and Investigation unit conducted 9 safety investigations into significant mining incidents in NSW and 17 bullying investigations. The safety investigations sought to identify the cause and circumstances that led to serious work health and safety incidents.

Investigators have actively engaged with mine operators and stakeholders during these investigations and have shared findings through investigation publications to raise awareness about incidents and factors that may have contributed to an incident.

Mine Safety has streamlined its publication of investigation findings via investigation information releases and the subsequent investigation reports. Information releases are designed to draw attention to the occurrence of a serious incident and are issued at the preliminary and final stages of an investigation.

Investigation reports and information releases are available on the Division of Resources and Energy website and serve as a useful tool for the industry to help assess risks or develop risk controls.

Internet data analysis indicates that these publications have very high viewing and distribution rates.

The department's investigation activities help mines improve health and safety performance by understanding the causes of actual incidents.

Spotlight: police training days

The Mine Safety Investigation team continued to work closely with the NSW Police during the year, delivering one-day training programs to NSW police commanders, inspectors and detectives.

The training helps both agencies maintain awareness of each other's statutory roles when attending a mining incident, clarifies jurisdictional issues on mine sites and forges good working relationships.

Mine Safety has provided training to about 240 police officers during the past two years.

Attendees at a NSW Police training day.



Meeting our objectives

Promoting the provision of advice, information, education and training

Industry assistance

Through the Industry Assistance Unit, Mine Safety has delivered education and assistance programs directly to the NSW mining industry. The aim is to help the industry better understand barriers to work health and safety system implementation and improve work health and safety practice.

The Industry Assistance Unit was established in 2009 as an initiative of the NSW Mine Safety Advisory Council and works closely with stakeholders to develop programs that are of benefit to the NSW mining industry and achieve world-leading work health and safety performance.

The unit's Work Health and Safety Culture Benchmarking Pilot Program began in 2012–13 with a number of major mining operators agreeing to participate. The program applies participative assessment tools and evaluates the results.

The unit also developed learning materials for the accompanying associated non-technical skills program and a suite of interactive learning resources for a range of priority health issues identified by the NSW Mine Safety Advisory Council.

A participative ergonomics program aimed at reducing musculoskeletal disorders by involving workers in identifying solutions to hazardous manual tasks, or 'gut-busting' jobs was implemented during the year. The program communicates directly with workers and increases their level of engagement. It includes short videos, featuring mine workers and their spouses, designed to engage workers at an emotional level.

During 2014-15, the Industry Assistance Unit conducted group workshops and provided individual site assistance to a wide range of organisations involved in mining. Specifically, the unit:

- collaborated with stakeholders through a number of NSW Mine Safety Advisory Council sub committees, Minerals Industry Safety Advisory Committee and industry organisations such as the Institute of Quarrying Australia, Cement Concrete and Aggregates Australia and the NSW Minerals Council;

- conducted audits and provided feedback to assist stakeholders identify their strengths and opportunities for improvements;
- coordinated the development of the new coal mine safety and health representative training course for the new WHS (Mines) legislation;
- supported the ongoing development of the skills of coal mine safety and health representatives; and
- developed quality, research-based resources that enable industry to improve their approach to the management of a range of hazards (e.g. WHS Culture Benchmarking Program).

The Industry Assistance Unit has provided education in areas including health and fatigue management, organisational and human factors, associated non-technical skills and safety management systems and organisational culture.

The Industry Assistance unit delivers programs directly to industry.



Spotlight: fatigue management

A fatigue management program is addressing how NSW mines are managing the cause and effect of fatigue. Studies have shown fatigue reduces reaction times, attention spans and causes more accidents than alcohol.

The NSW Mine Safety Advisory Council initiative aims to establish a view on the control strategies applied in the mining industry to manage fatigue.

The first project evaluations were held in the Central West with four mines evaluated.

The review involved an audit of a random selection of 47 NSW sites (including coal, metalliferous and extractives) and is expected to be completed by the end of 2015.



Promoting the provision of advice, information, education and training

Spotlight: ergonomic safety

Central West quarry workers have been acknowledged for their innovative solutions to reducing musculoskeletal injuries in the workplace.

A dinner in Orange celebrated the outcomes of a trial Participatory Ergonomic Program run by Mine Safety and the Institute of Quarrying Australia (IQA) Central West sub branch.

The trial brought together representatives from several quarries and companies to address the common issue of hazardous manual tasks. It was held as a series of sessions at several Central West quarries in February and April.

Participants carried out both manual and written tasks at their workplaces and completed risk assessments on identified hazardous manual tasks.

Peers chose teams from Metromix Marrangaroo, Westlime Parkes and Boral Talbragar to be finalists.

The finalists presented their ergonomic initiatives to judges, including world-renowned ergonomist Barbara McPhee, the Area Manager and Senior Inspector of Mines Central West, John Moss, and NSW IQA Chairman Jim Hankins.

The People's Choice award was presented to the Boral Talbragar team for its tool to replace worn impactor crusher plates. The Best Ergonomic Initiative 2014 went to Metromix Marrangaroo's team.

Spotlight: worker representatives

More than 150 people attended the annual Safety and Health Representatives (check inspectors) Safety Seminar held at Wyong in August 2014.

The seminar provided a forum for training and education with a specific focus on risk management.

Inspectors and mine safety officers led discussions in codes of practice, mining design guidelines, hazard identification, strata control, transport management and useful resources for check inspectors.

The annual event allows site check inspectors the opportunity to gather information from a range of industry experts and seek answers to mine site issues.

Check inspectors represent the work health and safety interests of workers at mines including:

- **monitoring procedures to control and assess risks;**
- **reviewing the measures taken to ensure health and safety; and**
- **inspecting documents and health, safety and welfare plans relating to legislation.**



Attendees at a participatory ergonomics workshop.



Stacie Kendall, Mine Safety Education Officer and Allan Pease, keynote speaker, at the seminar.

Meeting our objectives

Promoting the provision of advice, information, education and training

Emergency management

The Emergency Management and Coordination Team was established to help the mine safety regulator collaborate with the state mining industry, emergency service organisations and other stakeholders to coordinate responses and manage critical mining industry incidents and emergencies.

The team plays a critical role in the liaison between private and public sectors to achieve an all-hazards, all-agencies approach across the stages of emergency - prevention, preparation, response and recovery.

The team was involved in the NSW Government evaluation of how mining emergencies are managed in NSW following the Pike River Coal Mine disaster in New Zealand, 2010, in which 29 miners died. Following the tragedy, it became apparent that the management and coordination of mining emergencies needed to be brought into line with the government's framework for managing emergencies.

The outcome was the development of a Sub Plan to the NSW State Emergency Management Plan, called the NSW Mine Sub Plan.

The team has begun implementing this plan, which details the control and coordination arrangements for state mine emergencies.

Team members have also engaged industry and external agency sectors across the state, raising the awareness of mining emergency planning arrangements, the role of the NSW Department of Industry and collaboration opportunities between government and non-government.

This has included:

- engaging local and regional emergency management committees in mining centres;
- industry forums and workshops;
- conference presentations;
- involvement in agency and industry exercises; and
- specific agency presentations and engagements involving NSW Police Force, Fire & Rescue NSW, Ambulance Service NSW, Rural Fire Service, NSW Health and the State Emergency Service.

Spotlight: working with NZ

Officers from Worksafe New Zealand's High Hazards Unit met the Emergency Management and Coordination Team members to discuss the lessons learned from implementing the Royal Commission recommendations from the Pike River Coal Mine disaster.

The delegates discussed the implementation program for the Royal Commission recommendations, with particular attention to the emergency management arrangements that were changed within the country and recent exercises that have been conducted to test the arrangements.

The recent legislative reviews within New Zealand also saw the delegates liaising with other NSW Department of Industry sections such as the NSW Mine Safety Advisory Council and the Titles section, which were relevant to current programs within New Zealand.

The New Zealand delegates were also taken to a Hunter Valley underground coal mining operation, to review differences in mining operations, and held discussions with Mine Safety, Coal Services Mines Rescue and mine-based staff relating to the development of their codes of practice and other implementation programs.



Pike River coal mine disaster.



Promoting the provision of advice, information, education and training

Communication

Mine Safety produces a range of health and safety information for the mining industry, including:

- News – *Mine Safety Update*, mine safety news, legislation updates;
- Incident-related publications – incident e-alerts, investigation information releases, safety alerts, safety bulletins, investigation reports;
- Legislative guidance – codes of practice, guidelines and factsheets;
- Technical guidance – mining design guidelines, technical references, audit tools;
- Statistical publications and reports – weekly incident summary, annual performance report;
- Education program materials – facilitators' guides, Focus Ons, coaching guides; and
- Application and notification forms for certification, notifications, licensing, exemptions and registration activities.

Mine Safety's range of publications and forms are being updated to reflect the new *Work Health and Safety (Mines) Act 2012* and *Work Health and Safety (Mines) Regulation 2014*.

Legislation guidance published in 2014-15 included:

- Coal mine safety and health representatives - factsheet;
- Consulting workers - factsheet;
- Contractors - guide;
- Mine record - factsheet;
- Statutory functions - guide;
- WHS (Mines) legislation FAQ;
- Quick guide on new WHS (Mines) laws and transitional table;
- Notifying the regulator of reportable events - factsheet;
- Appointment and notification of mine operator - guide;
- Managing risks in mining - guide;
- Notification of incident and injury - guide;

- Transitional arrangements for plant registration and licences; and
- Underground mines - identification of returns and hazardous zones - guide.

Mine Safety publishes a bi-monthly newsletter, *Mine Safety Update*, and regular mine safety news emails to more than 4500 subscribers from not only the NSW mining industry, but also interstate and international subscribers.

Mine Safety also administers the safety and health area of the resources and energy website.

During 2014-15, a review of the website was undertaken and, based on feedback from industry, a new easier to navigate structure was launched, making it easier to find information. This will be followed by a content review to update the information on the website during 2015/16.

Spotlight: emergency preparedness

Each year the police and emergency services from outback NSW, Queensland and South Australia conduct a tri-state workshop to improve preparedness for emergencies in remote areas.

This year's tristate workshop was held at the White Cliffs Community Hall and included a session on mining disasters. The Emergency Management and Coordination team presented on the issues involved in managing the response to an underground mining entrapment.

The presentation and resulting discussions highlighted the need to rapidly escalate capability to manage a large logistics operation, enhance telecommunications and the difficulties in transporting resources quickly to remote locations.

The workshop was a unique opportunity to brief senior staff from multiple agencies at the one time.

Meeting our objectives

Framework for continuous improvement and higher standards of WHS

NSW Mine Safety Advisory Council

The NSW Mine Safety Advisory Council (MSAC) was established in 1998 following recommendations made in the Mine Safety Review and Gretley Inquiry to provide the minister with advice on WHS issues of critical importance to the NSW government.

The council was strengthened in 2006 and has aimed to increase the emphasis on safety and health within the NSW mining and extractives industry by reviewing and analysing safety performance, setting strategic directions, providing advice and developing policy recommendations.

At the request of the minister, the council commissioned a fatalities review following a series of four incidents causing five deaths. The review recommended the department develop an incident prevention strategy focusing on the control of critical risk and the examination of human and organisational factors in the prevention of incidents.

The department responded with the development of a number of change projects:

- Examining how to improve the timeliness of providing critical causal factors to industry from significant incidents and the consideration of the benefits of a dual investigation process within the department may bring.
- Commenced a review of fatigue risk management guidance in response to the outcomes of an investigation into a fatality.
- Overseeing the progress of improvement strategies being implemented by the Industry Assistance Unit such as musculoskeletal disorders, WHS culture, associated non-technical skills, bullying and harassment and safe design.

Mining Competence Board

The Mining Competence Board that supports all three sectors began development of a strategic plan to support the new WHS legislative framework for statutory positions that includes certificates of competence, assessment of candidates and a scheme for practising certificates.

The board was established to replace the former Coal Competence Board and the Mining and Extractive Industry Competence Boards. The board met twice during 2014-15 including a strategic planning session to set priorities to 2020. The priority areas are to:

- develop world leading competence standards for statutory functions;
- develop a scheme for practising certificates;
- identify and address emerging issues for statutory functions; and
- develop and implement a collaborative communication strategy.

Mine Safety has helped negotiate a draft memorandum of understanding between NSW, Queensland, Western Australia and the Commonwealth for the establishment of the Australasian Mining Competence Advisory Council. This national council will assist in the development of similar requirements for statutory positions and mutual recognition.

Competence assessment

During 2014-15 Mine Safety officers conducted 532 individual examinations and held 10 candidate briefing sessions.

As part of the WHS (Mines) legislation implementation, the Mining Competence Team revised the application forms, guidance and webpage for prospective candidates. The new forms and guidance has streamlined the process and led to increased efficiency in the processing of applications.

Mine Safety and the NSW Minerals Council partnered with other NSW Government agencies and training organisations to improve training outcomes for people seeking to qualify for key roles in the mining industry.

The project sought to address the low success rate of candidates in the examinations for key roles. A series of best practice guides were published to assist candidates, employers and registered training organisations with the examination process.



Maintaining and strengthening our harmonisation laws

New WHS (Mines) legislation

The new health and safety laws for NSW mining, the *Work Health and Safety (Mines) Regulation 2014*, together with the *Work Health and Safety (Mines) Act 2013*, started on 1 February 2015.

The new laws replaced the *Coal Mine Health and Safety Act 2002* and the *Mine Health and Safety Act 2004* and their regulations. There is no longer separate mine safety legislation for coal mines, metalliferous and extractives mines.

Transitional arrangements were put in place to allow time for duty holders to understand and comply with their obligations. Information about the new mine safety laws, including transitional arrangements and frequently asked questions, were published on the department's website.

The new laws increase harmonisation between the different states and territories of Australia.

They were developed by Mine Safety in consultation with other states, in particular the other major mining states of Western Australia and Queensland.

The new mining-specific laws have also been developed to align with and build on the *Work Health and Safety Act 2011* and *Work Health and Safety Regulation 2011*.

Mine Safety coordinated a number of technical advisory groups who developed a series of approved mining codes of practice under the new legislation, including:

- Emergency planning for mines;
- Inundation and inrush hazard management;

There is no longer separate mine safety legislation for different types of mining.



- Roadway dust analysis in underground coal mines;
- Safety management systems in mines; and
- Strata control in underground coal mines.

Spotlight: public consultation

The draft *Work Health and Safety (Mines) Regulation 2014* and a regulatory impact statement were released for public comment.

Fifty-eight public submissions from industry representative bodies, mining companies, unions and individuals were received on the draft regulation.

Mine Safety held a round of face-to-face stakeholder consultation meetings at various regional locations throughout NSW.

Mine Safety also met the NSW members of the tri-state Legislative Working Group (NSW Minerals Council, Cement Concrete and Aggregates Australia and CFMEU Mining and Energy Division) to review and discuss the public comment submissions.

The new regulation incorporates amendments to the draft regulation identified through the public consultation process.

Financial report

Payments made from the Mine Safety fund for the 2014-15 financial year

Description	Amount (\$000)
Employee-related	
Salaries & wages - direct	17,960
Salaries & wages - on costs	3,374
Employee-related total	21,334
Operating expenses	
Contractors	155
Consultants	582
Advertising & promotion	37
Travel expenses	626
Occupancy & maintenance	262
Training & development	150
Legal	2,242
Minor asset purchases	43
Administrative expenses	53
Audit fees	28
Printing	70
General expenses	152
Motor vehicle	169
Consumables & stores	292
Other fees - events	318
Other fees - computer software fees	154
Other fees - conference/seminar	123
Other fees - membership	22
Other fees - operating lease rentals - other	19
Other fees - professional fees	244
Other fees - recruitment fees	75
Other fees - service fee	67
Other fees - miscellaneous other fees	8
Operating expenses total	5,891



Payments made from the Mine Safety fund for the 2014-15 financial year

Description	Amount (\$000)
Internal department service charges	
Accommodation	1,731
Legal services	964
Computer hardware and software	124
Motor vehicles	653
Other corporate business services	1,425
Internal department service charges total	4,897
Total payments	32,122

Industry performance

Mine safety statistics

Annual performance report

The annual Mine Safety Performance Report summarises the incidents and injuries notified to NSW Department of Industry by the NSW mining and extractives industry. It also includes the assessments conducted and enforcements and advice issued by the Mine Safety inspectorate in the 2014-2015 financial year, set against a decade of data.

It classifies data into the coal, metalliferous, extractives, non-coal other and petroleum (onshore) mining sectors, and into underground and surface operations. It also analyses serious bodily injuries and injury outcomes by mechanism, agency, nature of injury, bodily location, age group and employment type.

The report provides annual and five year rolling average frequency rates for fatalities, lost time injuries and serious bodily injuries, annual frequency rates for total recordable injuries.

It also documents the growth of the mining workforce based on the number of hours worked as notified each quarter by mine operators in the coal, metalliferous and extractives sectors.

Key performance – comparison of 2014-15 to 2013-14

Hours worked:

- Coal sector hours worked decreased by 14.7%, metalliferous sector hours worked decreased by 17.7% and extractives sector hours worked decreased by 3.5%.

Fatalities:

- There were two fatalities in the extractives surface sector.
- The five year average fatal injury frequency rate remained constant for coal and metalliferous, but increased for extractives and overall.
- The five year average fatal injury frequency rate (FIFR) increased by 33%.

Lost time injuries:

- Although the number of LTIs increased 15% from 295 to 340, the overall five year average frequency rate of lost time injuries continued the downward trend of the past decade and reached a record low of 5.06.

Total recordable injuries

- The number of TRIs decreased 15.5% from 1243 to 1050.

Serious bodily injuries:

- The number of serious bodily injuries increased from 29 to 51.
- The five year average serious bodily injury frequency rate (SBIFR) increased slightly by 1.6% to 0.63.
- Both national OHS strategy targets, to reduce fatalities by 20% and serious injuries by 40% in the 10 years 2005-06 to 2014-2015, were achieved.
- Similar 10-year targets to 2022 have been set.

A mock rescue scenario involving a serious bodily injury.





Injury characteristics:

- Serious bodily injuries were again predominantly associated with people falling, and fractures were the most common nature of injury.
- The majority of serious bodily injuries were to direct mine employees, two thirds occurred in underground operations and most were related to the work environment or mobile mechanical plant.
- The most common causes of injuries with notifiable outcomes (mainly hospital inpatient admission or seven days of lost time and/or alternative duties) were muscular stressing, falls (including slips and trips) or being hit by moving or falling objects.
- The most common natures of injury were sprains and strains. Hand and finger injuries featured prominently, 73% occurred in underground operations and the majority were related to the work environment.

Incidents:

- The number of notifiable incidents decreased 18% from 2596 to 2126.

Assessments:

- The number of assessments increased 24% from 2164 to 2689.

Notices:

- The number of notices increased 17.8% from 1190 to 1402.
- 89% of notices issued were advice/improvement notices.

The full Mine Safety Annual Performance Report is available from the department's website at:

www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/publications/safety-performance-measures

Images from safety alert SA14-05 Mine worker injured in fall from grader, showing access ladder in raised and lowered position.



How to contact Mine Safety

Email: mine.safety@industry.nsw.gov.au

Web: www.resourcesandenergy.nsw.gov.au/safety

Maitland

516 High St, Maitland NSW 2320
Ph: 02 4931 6666 Fax: 02 4931 6790

Mine Safety Technology Centre

8 Hartley Dr, Thornton NSW 2322
Ph: 4924 4024 Fax: 4924 4080 Armidale
Ring Rd, North, UNE, Armidale NSW 2351
Ph: 02 6738 8500 Fax: 02 67728664

Broken Hill

PO Box 696, Broken Hill NSW 2880
Ph: 08 8088 9300 Fax: 08 8087 8005

Cobar

62-64 Marshall St, Cobar NSW 2835
Ph: 02 6836 6000 Fax: 02 6836 4395

Lightning Ridge

Lot 60 Morilla St, Lightning Ridge NSW 2834
Ph: 02 6829 9200 Fax: 02 6829 0825

Lithgow

Suite 1 / Level 1
184 Mort St, Lithgow NSW 2790
Ph: 02 6350 7888 Ph: 6352 3876

Orange

161 Kite St, Orange NSW 2790
Ph: 02 6360 5333 Fax: 02 6360 5363

Singleton

1 Civic Ave, Singleton NSW 2330
Ph: 02 6571 8788 Fax: 02 6572 1201

Wollongong

Level 3, Block F
84 Crown St, Wollongong NSW 2520
Ph: 02 4222 8333 Fax: 02 4226 3851