

**NSW
Resources
Regulator**

Compliance priorities

January – June 2018



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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2018). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Planning and Environment or the user's independent advisor.

Purpose

This report follows on from the NSW Resources Regulator’s Compliance Priorities July – December 2017 report by continuing to set out our key priorities for the next six months. In general terms, these are the identified areas of concern that we aim to focus our attention on.

By publishing our compliance priorities, we aim to provide increased transparency and community and industry confidence in our regulatory activities and increase levels of voluntary compliance.

Our objectives

The NSW Resources Regulator aims to:

- ensure a safe, sustainable and innovative mining, extractive and petroleum industry in NSW
- provide information and guidance about safety, environmental and other regulatory obligations to protect and support industry, workers, the community and the state
- promote confidence in how the industry is regulated
- make regulation transparent
- engage with and educate both industry and the community about best practice
- support industry to meet its regulatory obligations.

About us

The NSW Resources Regulator is a stand-alone regulator within the Department of Planning and Environment and is responsible for compliance and enforcement activities across the mining, extractive and petroleum industry.

The NSW Resources Regulator was created to ensure that the regulatory functions of the department have clear separation from industry development activities. This framework is designed to ensure a consistent and responsive regulatory approach and to provide increased transparency and community confidence in relation to our regulatory activities.

The primary focus of the NSW Resources Regulator is on compliance activities in relation to the following:

- compliance with the Mining Act
- regulating safety and health performance at NSW mines and petroleum sites (Mine Safety)

Vision	Mission
A safe and responsible mining, extractive and petroleum industry	To enable and support industry to understand and fulfil its obligations

Our regulatory activities are guided by the following documents:

- [Strategic approach](#)
- [Compliance and enforcement approach](#)

Compliance priorities

Every six months the NSW Resources Regulator will identify priorities for compliance and enforcement activities, some of which have carried over from the previous period.

Listed below are the new compliance priorities for January – June 2018.

Safety management systems at small-scale mines and quarries

NSW has a significant number of quarries across the state with a workforce ranging from less than five to more than 100 employees depending on the scale of operations. Through the support provided by experienced safety, technical and operational teams, larger scale operations generally have the resources and capability to develop robust, sustainable safety management systems that identify mine site hazards and provide safe systems of work. Without access to such resources, it is quite challenging for small-scale operators to develop and implement safety management systems that achieve the same standards and quality of systems developed by larger operators.

The regulator has made a commitment to review and update support and guidance material for small-scale mines and quarries to support the safe extraction of minerals, in line with current legislative requirements and best practice. This will be followed by a comprehensive education campaign to support mine operators in tailoring it to their specific operations.

Sector: Quarries and gemstones

Period: March – June 2018

Construction, operation and decommissioning of tailings dams

The construction, operation and decommissioning of tailings dams include key issues that have the potential to affect the sustainable development of the mining industry. There are many publicised cases of tailings dam failures across the world resulting in the escape of tailings materials off site and or significant landform instability issues. Safety consequences range from the displacement of downstream communities through to significant injuries and the death of both mine workers and the public. Environmental impacts have included the pollution of downstream rivers and land, contamination of groundwater, poisoning of native wildlife through exposure of adverse tailings as well as the generation of dust from exposed tailings material.

Regulatory activities, specifically through the review of Mining Operations Plans and Rehabilitation Cost Estimates developed for mining operations across the state, have identified uncertainties and knowledge gaps in relation to the management of tailings dams. In relation to decommissioning, the processes for the treatment, capping and rehabilitation of tailings dams to ensure that they are rendered safe, stable and non-polluting remain ill-defined across many operations.

A cross-agency awareness campaign, facilitated by the regulator, will be conducted across both the coal and metalliferous mining sectors to ensure that titleholders and mine operators are aware of their legislative obligations in relation to tailings management. The campaign will set out the regulator's expectations as well as identify key knowledge gaps that will need to be addressed by industry to promote best practice tailings management.

Sector: Coal and metalliferous mining sectors

Period: May – June 2018

Emergency escape management

Emergency escape from a mine may be required when someone is working in an environment and personal safety is threatened by fire, inundation of material and/or water, accumulation of gases (explosive, toxic or noxious) and strata failure. Under existing WHS legislation, operators of both underground coal and metalliferous mines have an obligation to prepare and implement an emergency plan.

The regulator has identified that there is a wide range of rescue equipment being used in underground mines, with some mines still using self-rescuers that do not generate oxygen and therefore are not appropriate or effective in an irrespirable atmosphere, putting the safety of workers at risk. Further, concerns have also been identified in relation to operators' understanding of requirements relating to second means of egress.

A compliance campaign will be undertaken to review emergency practices with a particular focus on:

- the appropriateness and effectiveness of rescue equipment in an irrespirable atmosphere
- understanding and application of requirements relating to second means of egress.

Sector: Underground mines

Period: February – April 2018

Hoists used in opal mining

An investigation into a fatal incident in 2016 involving a super hoist used to lift ore from an opal mine near Lightning Ridge in NSW identified an issue with the design of the hoist hydraulic system. The present design of the hoist hydraulic system involved in the fatality incorporates only a single acting counter balance valve, which creates a hazard to operators in the event of an over-spool scenario. The investigation identified that counter balance valves may malfunction due to ingress of dirt/debris and or degradation due to wear and tear.

An awareness campaign for opal mine operators and relevant hoist manufacturers will be carried out in response to concerns about the hoist design and associated safety risks, including risks associated with the use of single acting counter balance valves.

Read the [Information Release](#) and [Safety Alert](#) for further information on this incident.

Sector: Opal mines

Period: April – May 2018

Respirable dust hazards (airborne contaminants)

Respirable dust hazards are an ongoing focus area for the regulator, particularly given the recent cases of coal worker pneumoconiosis and simple silicosis in the NSW mining industry. In addition, planned inspections carried out in 2017 across the quarrying sector found varying degrees of dust management systems and dust mitigation practices in place, with a general lack of understanding by both mine operators and workers with regards to the identification, magnitude and the potential long-term detrimental effects to the health of workers.

Airborne contaminants are generated during mining activities such as extraction, drilling, crushing, hauling and stockpiling of rock containing minerals. To determine the appropriate controls to apply, mine operators need to understand the type and extent of airborne contaminants that exist on the mine site. This requires a regular dust sampling program and the creation of a baseline.

A comprehensive compliance campaign will be undertaken targeting dust management systems, monitoring programs and mitigation practices in place across all sectors. The compliance campaign, through targeted inspections, will be particularly focusing on:

- Operators' compliance with [clause 50 of the Work Health and Safety Regulation 2017](#) in relation to the monitoring of airborne contaminant levels (including baseline testing)
- The use of personal protective equipment in accordance with [clause 46 of the Work Health and Safety Regulation 2017](#), particularly by those in supervisory positions.

Sector: All

Period: March – June 2018

Incident reporting (ongoing)

The regulator is undertaking investigations into suspected non-reporting and late reporting of incidents, and has continued to receive further complaints in this regard. Analysis of incident reports has also identified some inconsistencies and unexpected patterns of reporting that will be subject to further interrogation and auditing.

An ongoing compliance campaign is being carried out across all sectors to ensure operators are meeting their reporting requirements. Over this period the regulator will be taking escalated enforcement action for repeat or significant offences, including the proposed introduction of penalty notices for these types of offences. Audit activities will also focus on reporting practices for third party contractors while operating on mine and petroleum sites.

Sector: All

Period: ongoing

Hazardous chemicals (ongoing)

Regulatory activities have recently identified potential non-compliance issues at mine sites in relation to the safe storage and handling of prescribed amounts of hazardous chemicals. It has also been identified that there has been a lower than expected number of notifications made under clause 348 of the Work Health and Safety Regulation 2017.

An ongoing compliance campaign is being carried out that targets larger operations across a variety of sectors to promote the safe storage, handling and notification of prescribed amounts of hazardous chemicals.

Sector: All

Period: ongoing

Fires on mobile plant (ongoing)

Incident data identifies a consistently high number of fires occurring on mobile plant each month. A fire or explosion at any workplace can have catastrophic consequences, which may result in serious injuries or the death of workers, as well as creating substantial damage to property and significant business disruption.

A compliance program is being carried out across all operations, with a focus on underground mines, to ensure that the risk of fires on mobile plants is being appropriately managed. During the upcoming period, the regulator will be undertaking survey and data collection activities to gain a better understanding of the issues, as well as a targeted audit program in relation to maintenance programs and activities.

Sector: All

Period: ongoing

Targeted assessment program

The NSW Resources Regulator's safety assessment programs focus on assessing mine operator's control of critical risks and evaluate the effectiveness of control measures in the operator's safety management system. The assessment typically involves sampling specific elements of the safety management system, rather than a holistic, audit-based approach.

Read the [Targeted assessment program \(TAP\) overview](#) fact sheet for more information on the program.

Emergency planning

Operators of mine or petroleum sites have a duty to prepare an emergency plan that addresses all aspects of the emergency response under WHS laws. From 1 February 2017, operators must also comply with the emergency management provisions of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.

Targeted assessments will be carried out at various mine sites to ensure that workplaces have effective emergency management arrangements in place in the event of an emergency and that they have implemented an emergency plan.

Read the [Emergency planning](#) fact sheet.

Diesel exhaust emissions

Diesel exhaust emissions contain a range of chemical, gases and diesel particulate matter (DPM). The International Agency for Research on Cancer reclassified diesel exhaust emissions as a carcinogen to humans in 2012.

Targeted assessments will be carried out at various mines focusing on how the mine prevents worker exposure to harmful diesel exhaust emission.

Read the [Diesel exhaust emissions](#) and [Diesel exhaust emissions – underground coal mines](#) fact sheets.

Fatigue

Fatigue can be a significant hazard in the mining industry due to the 24-hour nature of mining operations and long working shifts. The management of fatigue at mines will be the subject of targeted assessments that will focus on how worker exposure to fatigue is prevented. Key areas that will be assessed are site processes for identification, assessment and development of risk controls for fatigue and associated risks including preventative and mitigating controls, monitoring for worker exposure and verifying the effectiveness of controls.

Targeted assessments will be carried out at surface coal mines focusing on how worker exposure to fatigue is prevented.

Read the [Managing fatigue in the workplace](#) fact sheet.

Explosion suppression

Coal dust explosions occur when fine coal particles become airborne and are ignited by some means, such as the ignition and explosion of a quantity of methane. Coal dust should not be allowed to accumulate on roadways and other surfaces.

Stone dusting involves the application of an inert dust to the roof, ribs and floor of the mine roadway to render coal dust inert. The use of an appropriate type of dry stone dust or other explosion inhibitors, applied at an appropriate rate, is essential to minimise the risk of a coal dust explosion in an underground coal mine.

Targeted assessments will continue and all underground coal mines will be assessed to verify the adequacy of explosion suppression risk controls.

Airborne contaminants

Airborne contaminants are generated during mining activities such as extraction, drilling, crushing, hauling and stockpiling of coal and other rock containing minerals. Workers in coal mines may be exposed to both coal dust and crystalline silica, which, at the respirable fraction, can cause pneumoconiosis (in the case of coal) or silicosis (in the case of crystalline silica). Both conditions are disabling, and often result in fatal lung diseases.

Targeted assessments will be carried out at surface and underground coal mines and underground metal mines to ensure that they are employing a range of measures to control the exposure risks of workers.

Read the [Airborne contaminants](#); [Airborne contaminants – open cut coal mines](#); and [Airborne contaminants – metalliferous mines](#) fact sheets.

Fire and explosion

A fire or explosion at any workplace can have catastrophic consequences, which may result in serious injuries or the death of workers, as well as creating substantial damage to property and significant business disruption. History has shown that mine and petroleum sites are not immune to the realisation of this risk and applicable legislation has identified fire or explosion as a principal hazard, which must be addressed.

Targeted assessments will be carried out to ensure that workplaces are fulfilling their statutory obligations with respect to the identification of fire or explosion hazards and the identification and implementation of risk control measures to prevent or mitigate those risks.

Read the [Fire and explosion risks – underground coal operations](#); and [Fire and explosion – underground metalliferous mines](#) fact sheets.

Planned inspection program

The NSW Resources Regulator's planned inspection program is a considered approach to assessing how effectively a mine or petroleum site is controlling risks associated with the operation's principal hazard management plans and principal control plans. Planned inspections are based on industry and sector risk profiles and may be announced or unannounced and may occur on back shifts. Planned inspections will be carried out on the following:

Small mines

- inspections of underground opal workings - roof support and ground control
- hazards - air quality or dust or other airborne contaminants, electricity (electrocution), fire and explosion

Underground metal mines

- ground or strata failure
- fire or explosion
- electricity (electrocution)
- inundation or inrush of any substance
- roads or other vehicle operating areas

Surface metal mines

- roads or other vehicle operating areas
- ground or strata failure
- fire or explosion
- electricity (electrocution)
- inundation or inrush of any substance
- explosives

Processing plants

- air quality, dust or other airborne contaminants
- electricity (electrocution)
- fire or explosion
- roads or other vehicle operating areas
- confined space

- working at heights
- gas outburst (pressure vessels)
- inundation or inrush of any substance

Underground coal mines

- air quality, dust or other airborne contaminants
- fire
- explosion
- ground or strata failure
- spontaneous combustion
- electricity (electrocution)
- inundation or inrush of any substance
- roads or other vehicle operating areas
- subsidence

Surface coal mines

- air quality, dust or other airborne contaminants
- roads or other vehicle operating areas
- fire or explosion
- electricity (electrocution)
- explosives
- ground or strata failure

Petroleum sites

- verification of compliance with decommissioning plans and well-workover plans (HRAs)
- health and safety risks at legacy well sites

Compliance audits

The NSW Resources Regulator's audit program is a planned approach to assessing compliance against selected requirements of the Mining Act or WHS legislation. In addition, compliance audits assess the operational performance of mining operations and the ability of operators to implement management systems and controls to provide for sustainable and safe management of the operations.

The audit program is developed using a risk review process to identify the audit focus. A risk assessment methodology (broadly based on *AS/NZS ISO 31000:2009 Risk management – Principles and guidelines*) is used to develop a broad risk profile for each sector to facilitate the development of the audit program.

The audit program will focus on:

- community consultation requirements and reports
- rehabilitation progress and compliance with activity approvals
- general dip sampling cross sections of each sector
- mining infrastructure in drinking water catchment special areas.

Investigation priorities

In addition to the priorities identified within this document, the following circumstances or allegations are priority areas for investigations.

Work health and safety obligations¹

- work-related fatalities and serious injuries or where there is a risk of such outcomes
- non-compliance with inspectors' notices or directions
- offences against inspectors
- offences against health and safety representatives and matters relating to entry permit holders
- discrimination against workers on the basis of their work health and safety activities
- failure to notify incidents

Mining Act obligations

- failure to pay rehabilitation security deposits
- failure to rehabilitate land
- false and misleading information
- non-compliance with inspectors' notices or directions

¹ As identified in the Safe Work Australia – National Compliance and Enforcement Policy

- offences against inspectors
- non-compliance with title conditions

Workshops and seminars

A key role of the NSW Resources Regulator is to ensure all operators and title holders are aware of their obligations and how to meet them. Training workshops and information sessions are used as a valuable way to engage with industry and help to maximise their compliance.

Please refer to the Resources Regulator's [Events calendar](#) for specific dates and locations of all workshops and seminars as they may be subject to change.

Health control plan workshops

February and March

All mines, quarries and petroleum sites are required to develop and implement a health control plan. To assist mines with this, the Resources Regulator will be delivering workshops across NSW.

The 'Develop and implement a health control plan workshop' has been designed to assist mines that are just starting the process. Mines that have already implemented a health control plan or who are looking to bring their health management plan in-line with current legislative requirements, may find the 'Evaluate and review a health control plan workshop' of assistance.

Mine safety awareness course

February, April and June

This course covers general safety in mining. Persons wanting to apply for a mineral claim in the Lightning Ridge mineral claims district are required to complete this course as part of their application.

Mine operators' workshop

February, April and June

This course covers the knowledge and skills required to be a mine operator at an opal mine, including safety policy, hazard identification, maintenance, risk management, people management, emergency response plans, and contractors.

Metals Industry Safety Advisory Committee

May

The Metalliferous Industry Safety Advisory Committee (MISAC) has been established by the regulator to share information and provide advice on safety issues within the metalliferous mining sector. MISAC consists of representatives from industry and the regulator and meets biannually.

Southern region electrical engineers' meeting

February and May

Meeting of electrical engineers from coal, metalliferous and extractive mines with inspectors of electrical engineering to review emerging issues and trends in the application of electrical engineering in coal, metalliferous and extractive mines. Includes review of recent incidents, site experiences in managing safety and discussions on improving electrical safety.

Hunter region electrical engineers' meeting

February and May

Meeting of electrical engineers from coal and extractive mines with inspectors of electrical engineering to review emerging issues and trends in the application of electrical engineering in coal and extractive mines. Includes review of recent incidents, site experiences in managing safety and discussions on improving electrical safety.

Western region electrical engineers' meeting

March

Meeting of electrical engineers from metalliferous and extractive mines with inspectors of electrical engineering to review emerging issues and trends in the application of electrical engineering in metalliferous and extractive mines. Includes review of recent incidents, site experiences in managing safety and discussions on improving electrical safety.

Electrical Safety and Health Representatives (SHR) meeting

May and June

Meeting with electrical SHR representatives. The scope of the meeting includes reviewing latest legislation updates, training for the SHRs in mine safety issues, and discussing current and emerging issues in the use of electricity in mines.

Cable repair shops meeting

April

Meeting with cable repair shops to review the processes of licencing, approvals and any other issues that affect the cable repairing sector and the mines that use these cable repairers.

Electrical awareness program

May and June

A program on the safe use of electricity in opal mines. This will be a course with inspectors engaging with the miners' associations, miners and other community organisations.

Mechanical engineering managers' meeting

April

This meeting is held with mechanical engineers at underground coal mines who hold the statutory position of 'mechanical engineering manager'. The meeting is organised and run by the regulator to discuss topical issues, give updates on guidelines and standards, discuss published safety alerts, bulletins, investigation releases and discuss relevant notifiable incidents for the previous six months. The meeting is also an essential part of the CPD requirements for statutory engineers.

Mechanical engineers' meeting

April

This meeting is held with mechanical engineers at open cut coal mines who hold the statutory position of 'mechanical engineer'. The meeting is organised and run by the regulator to discuss topical issues, give updates on guidelines and standards, discuss published safety alerts, bulletins, investigation releases and discuss relevant notifiable incidents for the previous six months. The meeting is also an essential part of the CPD requirements for statutory engineers.

Explosion protected diesel engine systems (ExDES) recognised service facility (RSF) licence workshop

June

An ExDES (RSF) licencing scheme has been implemented for persons who carry out overhaul and repair activities on ExDES. All facilities have been subject to ExDES planned assessments by the regulator. The workshop is planned to provide feedback to the RSF facilities on the findings and issues raised, set future expectations, and provide the opportunity for stakeholder consultation.

Reporting compliance activities and outcomes

The NSW Resources Regulator has a strong policy of transparency and we are committed to communicating publicly about our regulatory activities. Regular reports on our activities are published in order to:

- ensure a consistent and responsive regulatory approach; and
- provide increased transparency and confidence in our compliance and enforcement activities.

Reports on compliance activities and programs, targeted assessment programs and compliance auditing can be found on our [Compliance activities and reports](#) web page. Further information can also be found in our [Public comment policy](#).

Compliance activities calendar January – June 2018

Compliance priorities	Sector	Jan	Feb	Mar	Apr	May	Jun
Safety management systems at small mines	Quarries & gems						
Tailing dams	All						
Emergency escape management	Underground mines						
Hoists used in opal mining	Opal mines						
Respirable dust hazards	All						
Incident reporting	All						
Hazardous chemicals	All						
Fires on mobile plant	All						
Targeted assessments	Sector	Jan	Feb	Mar	Apr	May	Jun
Emergency planning	Underground coal						
Emergency planning	Metal						
Diesel exhaust emissions	Underground coal						
Fatigue	Surface coal						
Explosion Suppression	Underground coal						
Airborne contaminants	Surface coal						
Airborne contaminants	Underground metal						
Fire and explosion	Underground coal						
Fire and explosion	Underground metal						
Workshops and seminars	Sector	Jan	Feb	Mar	Apr	May	Jun
Health control plan workshops	All						
Mine safety awareness course	Opal mines						
Mine Operators workshop	Opal mines						
Metals Industry Safety Advisory Committee	Metal mines						
Southern Region Electrical Engineers meeting	All						
Hunter Region Electrical Engineers meeting	All						
Western Region Electrical Engineers meeting	All						
Electrical SHR meeting	Coal mines						
Cable repair shops meeting	OEM						
Electrical awareness program	Opal mines						
Mechanical Engineering Managers meeting	Underground coal						
Mechanical engineers meeting	Open cut coal						
ExDES RSF licence workshop	Underground coal						