

Compliance priorities

July – December 2017



Document control

Published by NSW Department of Planning and Environment, NSW Resources Regulator

Title: Compliance priorities July - December 2017

First published: July 2017

Authorised by: Chief Compliance Officer

RM8 reference: PUB17/447

Amendment schedule					
Date	Version	Amendment			

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Purpose

The NSW Resources Regulator's Compliance priorities report sets out our priorities and focus areas for the period July – December 2017 and outlines in general terms the regulatory activities we will undertake to meet identified areas of concern.

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



Focus areas

The NSW Resources Regulator has identified a number of focus areas - these are issues or areas of concern that generally require a broader regulatory approach than just a compliance campaign or operation, and may extend to strong policy and legislative framework considerations.

Focus areas may also require a shift in approach by the regulator from past activities and require new systems and processes to be developed.

For July – December 2017 four key focus areas have been identified.

Respirable dust hazards

The risk profiling undertaken for mines identified, across all sectors, that there has been a concerning reemergence of respirable dust issues, with numerous cases of coal worker pneumoconiosis being identified in Queensland and the first reported case in NSW since the 1970s. In addition, there have been reports of growing numbers of silicosis cases in other industries.

In addition to undertaking targeted assessments across various mine sectors focusing on respirable dust hazards, the regulator will be closely reviewing the findings from inquiries into the re-emergence of pneumoconiosis in Queensland and examining whether the NSW framework can be further strengthened.

All aspects of the WHS legislation that relates to the effective management of risks to health and safety associated with respirable dusts at mines are being given a high level of priority. This includes notifications, complaints or requests for service from workers, assessments and investigation outcomes that are associated with respirable dust at mines.

Risk assessments

A key requirement of the work health and safety legislation is for the mine or petroleum site operator to systematically manage risks arising from workplace hazards. Effective risk assessment is one part of the risk management cycle.

Inadequate or ineffective operational risk assessment of workplace hazards and identification of appropriate risk controls has been identified as an area of concern, based on risk assessments submitted with high risk activity notifications and applications for exemption from provisions of the legislation, and during investigations.

The issues identified include corporate risk assessments not appropriately adapted to the specific site, not sufficiently comprehensive for the hazard or activity, out of date or prepared for a similar activity but not the activity the subject of the application.

Fatigue management

Fatigue is state of impairment that can include physical and or mental elements, including lower levels of alertness and reduced performance. Fatigue can be a significant hazard in the mining industry due to the 24-hour nature of mining operations and long working shifts. Assessment activities to date have identified that risk assessments being undertaken by some mines are not appropriately addressing the fatigue hazard and controls being applied to manage fatigue are invariably lower-order, with a reliance on procedures and individual worker compliance.

In addition to undertaking targeted assessments focusing on effective implementation of fatigue risk controls, the regulator has also undertaken a review of guidance material to ensure that it remains appropriate.



All aspects of the WHS legislation as it relates to the effective management of fatigue risks are being given a higher level of priority.

Human and organisational factors

Human and organisational factors are the environmental, organisational and job-related, and human characteristics that influence behaviour at work. These factors can affect health and safety in the workplace.

What people are being asked to do (the task and its characteristics), who is doing it (the individual and their competence) and where they are working (the organisation and its attributes) all have an influence on the safety of the workplace.

The impact that human and organisational factors have on the implementation and maintenance of critical controls risks will be given a higher level of priority, with a particular focus on the regulator's knowledge and capability through inspector training.

Compliance priorities

Every six months the NSW Resources Regulator identifies priorities for compliance and enforcement activities. In addition to our day-to-day compliance activities, our priorities for July – December 2017 are listed below.

Hazardous chemicals

Regulatory activities have recently identified significant non-compliance issues at a number of mine sites in relation to the safe storage and handling of prescribed amounts of hazardous chemicals. A review of data holdings has also identified a lower than expected number of notifications made under clause 348 of the Work Health Safety Regulation 2011.

A compliance campaign will be 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: September – December 2017

Coal handling and preparation plants

A number of near-misses have been reported due to the structural failure of walkways and other plant, resulting in a <u>Safety Alert</u> being issued in March 2017. A compliance inspection program will be undertaken focusing on structural integrity at coal handling and preparation plants. Inspections will also consider guarding of belt conveyor pulleys, and crush points on aerial travelling conveyor trippers.

The program will continue in July 2017 and will be undertaken at all coal handling and preparation plants across NSW.

Sector: Coal mines Period: July – August 2017

Heat stress

Heat stress has been identified as a significant risk at a number of mines. Working in intense heat can raise normal body temperature and lead to serious dehydration, heat stroke and possible death. In July 2017, a



Western Australian mine operator was found guilty of failing to take measures to prevent hazardous levels of heat which contributed to the death of a contractor at a Pilbara underground gold mine in 2015.

A compliance inspection program will be carried out targeting heat stress management at underground metal mines

Sector: Underground metal mines Period: September - November 2017

Illegal fossicking

Recreational fossickers utilising a device known as a 'highbanker' to enhance their fossicking capabilities to search for scheduled minerals has been identified as an emerging issue. The use of a highbanker, which is a petrol or electric powered device, in fossicking, is prohibited by the Mining Regulation 2016. These products are being commercially produced by multiple manufacturers to meet market demand. This unlawful activity results in a number of environmental issues.

A compliance campaign with be carried out focusing on suppliers and end users of the equipment.

Sector: Fossickers Period: September – November 2017

Lightning Ridge opal mining

The Lightning Ridge opal fields consist of thousands of workings and expired claims and presents a number of safety and environmental compliance issues in relation to exposed shafts and exploration bore holes. In addition, the regulator routinely receives complaints in relation to alleged illegal mining and illegal dumping of mullock.

A targeted compliance operation will be undertaken focusing on mine shaft safety, mechanical and electrical safety, mineral claim conditions and rehabilitation of mineral claims

Sector: Lightning Ridge Period: July 2017

Fires on mobile plant

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 will be carried out across all operations, but with a particular focus on underground mines, to ensure that the risk of fires on mobile plants is being appropriately managed and that current guidance material is appropriate.

Sector: All Period: August – December 2017

Incident reporting

The regulator is undertaking a number of 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 of further interrogation and audit.



A compliance campaign with be carried out across all sectors to ensure operators are meeting their reporting requirements. Additional education and support activities will also be targeted towards explorers to ensure that they are aware of their obligations.

Sector: All Period: October – December 2017

Suspension of mining operations

A number of investigations into breaches of the Mining Act have identified that there are current mines that are not in operation and are unlikely to return to operating. Titleholders are required to submit mine closure plans and rehabilitate the site when operations have ceased.

A compliance campaign will be conducted to ensure that titleholders are aware of their obligations regarding suspension of operations and relinquishing titles. The campaign will also identify instances where titles are being retained to avoid rehabilitation or with no plans to recommence mining.

Sector: All Period: October – December 2017

Health control plans

Mine and petroleum site operators have an obligation under the WHS laws to develop and implement a health control plan that sets out the means by which the operator will manage the risks to health associated with mining or petroleum operations.

An awareness campaign will be carried out across all operations, but with a particular focus on small mines, to help mine operators ensure their health control plans sufficiently address key health issues such as dust, noise, hazardous substances, airborne contaminants, radiation, vibration, fatigue and extreme temperatures. The campaign will include updated guidance on health issues management.

Sector: All Period: October – December 2017

Methods of working and control of bench heights

There have been a number of incidents relating to equipment reach versus bench height at small mines. A <u>Safety Alert</u> regarding the issue was published in September 2016, however there have been further incidents since that time. An adequate focus on plant selection and methods of work taking into account mine design and the hazards and risks on the site is essential to the provision and maintenance of safe systems of work and the provision of fit-for-purpose plant for workers.

A compliance campaign will be developed and implemented targeting quarries.

Sector: Open cut mines (quarries) Period: September – December 2017

Blasting exclusion zones

A recent incident has identified serious concerns in relation to workers being in exclusion zones and being exposed to risk from fly rock during blasting at a surface coal mine.

A compliance review will be undertaken to examine industry practice.

Sector: Surface coal mines Period: September - November 2017



Gas outburst

There have been a number of serious outburst incidents at various underground mines. A <u>Safety Alert</u> regarding the issues was published in January 2017, however since that time a number of prohibition notices have been issued as a result of gas outburst concerns. The regulator has commenced a targeted inspection program at selected underground mines with a particular focus on the management of outbursts on longwalls.

Elevated compliance monitoring and inspections will occur at underground coal mines. Work is ongoing on the development of guidance material and provision of information to industry to promote understanding of the risks.

Sector: Selected underground coal mines Period: July – August 2017

Plant used in the hazardous zone

Plant used in a hazardous zone must be explosion-protected and, if the plant is electrical plant, the plant must have an explosion-protection level suitable for that use. There have been a number of instances where electrical plant manufactured and supplied for use, and in use, at underground coal mines has not complied with the issued certificate of conformity. A compliance program will be developed to promote awareness and improve compliance.

Sector: Designers, manufacturers and suppliers of plant Period: September – December 2017

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) factsheet for more information on the program.

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 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 TAP factsheet.

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 they have implemented an emergency plan.

Read the Emergency planning TAP factsheet.

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 TAP factsheet.

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.

Explosion suppression

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 dry stone dust or other explosion inhibitor of an appropriate type and applied at an appropriate rate is essential to minimise the risk of a coal dust explosion in an underground coal mine. 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

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

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 TAP factsheet

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
- \rightarrow 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:

→ access and compensation agreements



- → community consultation requirements and reports
- → rehabilitation progress and compliance with activity approvals
- → titles receiving grants under the New Frontiers Cooperative Drilling Program
- → general dip sampling cross sections of each sector

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
- 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.

Safety awareness course

Lightning Ridge: 17 July, 11 September and 13 November

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.

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



Mine operators workshop

Lightning Ridge: 19 July, 13 September and 15 November

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.

Mechanical engineering safety seminar

Sydney Olympic Park: 6 and 7 September

This year the theme of the seminar will be 'Are you overthinking it?', and features well-known keynote speaker and author Sarah-Jane Dunford from Riskology Consulting. The seminar is an established and respected forum for mechanical engineers in industry and focuses on a wide-range of mechanical engineering activities.

Electrical engineering safety seminar

Sydney: 8 and 9 November

The theme of this year's seminar will be 'Identify, evaluate and control the risk'. The seminar will provide information to aid in the managing of risk, in particular, risks associated with the use of electricity at mining operations. This includes providing guidance and information relating to health, safety, engineering standards, and legislative requirements.

Safety and health representative safety seminar

Newcastle: 13 September

The safety and health representative safety seminar is an established and respected forum for the regulator, coal mine safety and health representatives and senior managers and supervisors to consider and discuss key issues that are relevant to effective consultation, collaboration and good WHS outcomes at mines.

Maintenance of competency information sessions

August, September and October

Information sessions relating to the requirement to maintain knowledge and skills for individuals who hold a certificate of competence or practising certificate will be held in various locations during August-October. These sessions will provide information to assist candidates prepare for their examinations and information for those required to evidence the maintenance of their knowledge and skill.

Subsidence risk workshop

Pokolbin: 8 November

A workshop is being run following the Mine Subsidence Technological Society Conference (5-7 November) on risk-based regulation of subsidence. The workshop will provide information to assist mine operators comply with their obligations under the WHS laws in relation to subsidence, and identifying and controlling hazards that may cause harm to people from subsidence. The principal hazard management plan and high risk activity



notification processes will be workshopped. The workshop is being run in partnership with Subsidence Advisory NSW, Department of Finance, Services and Innovation who will present on a number of topics.

Original equipment manufacturer workshop - certificates and registration

Sydney: November

This workshop aims to improve awareness and understanding of requirements for the supply of electrical plant to underground coal mines. Areas of focus will include industry performance, requirements for use of certificates of conformity and design registration requirements. The workshop will include information on issues that impact, or have potential to impact, the safety of an underground mining operation.

Metals Industry Safety Advisory Committee

Dubbo: 29 November

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.

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 <u>Compliance activities and reports</u> web page. Further information can also be found in our <u>Public comment policy</u>.



Compliance activities calendar July - December 2017

Compliance priorities	Sector	Jul	Aug	Sep	Oct	Nov	Dec
Heat stress	Underground metals						
Incident reporting	All		ı				
Hazardous chemicals	All		ı				
Coal handling plants	Coal mines				T	ļ	ı
Plant used in hazardous zone			ı				
Lightning Ridge	Opal mines			ı	I	ı	1
Fires on mobile plant	All						
Outburst risks	Underground coal						
Control of bench heights	Small surface mines		ı				
Suspension of mining operations	All		ı	ı			
Blasting exclusion zones	Surface coal mines		ı				
Illegal fossicking	Fossickers						
Health control plans	All		ı	ı			
Targeted assessments	Sector	Jul	Aug	Sep	Oct	Nov	Dec
Respirable dust	Underground coal						
Emergency management	All						
Diesel exhaust emissions	All						
Fatigue	Surface coal		'				
Explosion suppression	Underground coal						
Airborne contaminants	Surface coal			1			
Fire and explosion	Underground coal						
Airborne contaminants	Underground metal						
Workshops and seminars	Sector	Jul	Aug	Sep	Oct	Nov	Dec
Safety awareness course	Opal mines						
Mine operator workshops	Opal mines						
Mechanical engineering safety seminar	All		ı			I	1
Electrical engineering safety seminar	All				1		
Safety and health reps safety seminar	Coal mines						1
Maintenance of competency info sessions	All						1
Subsidence risk workshop	Underground coal				1		
OEM Workshop - certificates and registrations	OEMs		1		1		
Metals Industry Safety Advisory Committee	Metal mines		1	1	1		