



**NSW
Resources
Regulator**

COMPLIANCE PRIORITY REPORT

WORKING AT HEIGHTS – OPAL MINES

February 2021 – December 2021



Document control

Published by NSW Resources Regulator

Title: Compliance priority report – Working at heights – opal mines

First published: August 2022

Authorised by: Chief Inspector of Mines

CM9 reference: RDOC22/101278

AMENDMENT SCHEDULE

Date	Version	Amendment
August 2022	1.0	First published

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Executive summary

A crucial part of the NSW Resources Regulator's Incident Prevention Strategy involves compliance priority programs for mines and petroleum sites. This involves proactively assessing a topic which is an emerging risk across the industry, that is driven primarily from incident data as well as evolving industry trends. Although these topics may also be contained within the Resources Regulator planned inspection programs, the aim of compliance priority programs is to gather further information and knowledge about how the industry is managing and controlling a specific issue.

This report summarises the assessment findings from the compliance priority programs which targeted working at heights within the opals industry and how mine operators of multiple mineral claims are managing the risk of working at height on multiple sites. These programs covered 136 mines during the period from February 2021 to December 2021. Several key elements were assessed as part of this program and included:

- Surface layout
- Access shafts
- Other shafts and auger holes
- Access system at entry to shaft (ladders)

Published guidance relating to working at heights are listed in Appendix A.

The Regulator will continue to assess working at heights for small scale opal mines in the Lightning Ridge and White Cliffs areas. Results of these inspections will be monitored to determine whether further action is needed. Furthermore, the regulator will review the educational material and the minimum standards for shaft security.

Key findings

Of the mineral claims inspected, 100 had controls in place to manage the risk of workers falling from height. Controls observed included:

Satisfactory access shaft and access systems (shafts on the claim with an access system installed)

- Access shafts secured to prevent unauthorised access while in use.
- Access ladders secured/pinned at the surface and to the shaft wall.
- Access ladders protruding at least 900 mm above the ground level.
- Collar installed in the access shaft to prevent falling objects/loose material and water ingress down the shaft.

Satisfactory shafts (shafts of the claim without an access system installed)

- Shafts secured by a suitable fence with post at least one metre from the shaft opening.
- Shafts secured with a reinforced mesh cover that is at least 40% greater in size than the shaft opening.
- Shafts secured by self-supported barriers (i.e. panels).
- satisfactory auger holes
- Auger holes secured with pipe protruding at least one metre above the ground level, fenced or backfilled.

Of the mineral claims inspected, 36 did not have controls in place to manage the risk of workers falling from heights. Observations of poor control methods included:

Poor access shaft and access system (shafts on the claim with an access system installed)

- Access shafts without any security/barriers to prevent unauthorised access while in use.
- Access ladders not secured/pinned at the surface and to the shaft wall (i.e. hanging or swinging ladders).
- Access ladders not protruding at least 900mm above the ground level.
- Non-approved devices used as a person-riding hoist.

Poor shafts (shafts on the claim without an access system installed)

- Shafts without any security/barriers installed
- Shafts covered with sheets of iron/car bonnets/logs

- Shafts with a mesh cover that was not reinforced or not at least 40% greater in size than the shaft opening.
- Shafts covered with a solid object at the opening, then covered with dirt (i.e. dummied shaft)

Poor auger holes

- Auger holes with no security.
- Auger holes covered with a sheet of iron/metal or plastic drums/rocks.
- Auger holes covered with solid object at the opening, then covered with dirt (i.e. dummied auger hole).

Recommendations

To ensure continued compliance with working at heights and managing multiple claims, mine operators should:

- review [Fact sheet: Working safely in and around shafts](#) and ensure all shafts on all mineral claims are secured to this standard as a minimum at all times.
- review the [self-assessment checklist: working safely in and around shafts](#)
- review their current practices (method of shaft security) to ensure they control the risks of working at heights.
- Review and periodically check which claims, and the amount of claims, for which they are nominated as the mine operator.

Notices issued

Of the 136 sites assessed under the inspection program, 45 separate mines were given notices relating to working at heights, while some mines were given notices in relation to other matters. For the purposes of this report, contraventions related to other matters were removed from the analysis. The notices issued for working at heights were examined in detail and Table 2 below lists the notices issued by type and details.

Table 1: Notices issued for the compliance priority program – Working at heights - Opals

NOTICE TYPE	TOTAL ISSUED	NUMBER OF MINES
s.195 prohibition notice	7	7
s.191 improvement notice	34	34
s.23 notice of concerns	4	4
Total	45	45

Of the combined 45 notices issued, there were some common themes that were apparent throughout the program. Table 3 summarises the type of contraventions and identifies some trends that are of concern.

Table 3: Notices issued - prevalence of categories of concern

CATEGORIES OF IDENTIFIED CONCERNS

Access shaft and their access system/ladders

- Access shafts were without any security/barriers to prevent unauthorised access while the shaft is in use.
- Access ladders were not secured/pinned at the surface and to the shaft wall (i.e. hanging or swinging ladders) to control the risk of a worker falling from height.
- Access ladders not protruding at least one metre above the ground level to provide safe access egress from the mine.
- Non-approved devices used as a person-riding hoist.

Shafts (no access system installed)

- Shafts did not have any security/barriers installed to control the risk of workers falling from heights.
- Shafts were covered with inadequate materials (i.e. sheets of iron/car bonnets/logs) that do not meet the minimum standard.
- Shafts with a mesh cover that was not reinforced or not at least 40% greater in size than the shaft opening.
- Shafts covered with solid objects at the opening, then covered with dirt (i.e. dummied shaft).

Auger holes

- Auger holes without any security to prevent injury to workers.
- Auger holes covered with inadequate materials (i.e. a sheet of iron/metal or plastic drums/rocks).
- Auger holes covered with solid objects at the opening, then covered with dirt (i.e. dummied auger hole).

Further information

For more information on safety assessment programs, the findings outlined in this report, or other mine safety information, please contact the NSW Resources Regulator:

CONTACT TYPE	CONTACT DETAILS
Email	cau@regional.nsw.gov.au
Incident reporting	To report an incident or injury call 1300 814 609 or log in to the Regulator Portal
Website	www.resourcesregulator.nsw.gov.au/
Address	NSW Resources Regulator 41 Opal Street Lightning Ridge NSW 2834

Appendix A. working at heights risk management educational documents for opal mines

Working at heights risk management educational documents for opal mines:

- [Fact sheet: Working safely in and around shafts](#)
- [Self-assessment checklist: Working safely in and around shafts](#)
- [Falls from height - Improving safety when working in shafts](#)