Compliance priority report

Mobile plant safety

Small mines

March 2023 to August 2023

Published by the Department of Regional NSW

Title: Compliance priority report – Mobile plant safety - small mines- March 23 to August 23
First published: November 2023
Department reference number: RDOC23/241933

More information

Amendment schedule		
Date	Version	Amendment
November 2023	1	First published

Table of Contents

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 that is an emerging risk across the industry, predominantly determined from incident data or other evolving industry trends. Although these topics may also be contained within the Regulator's planned inspection programs, the aim of compliance priority programs is to gather further information and knowledge about how the industry is managing and controlling an issue that may not be related to a specific principal hazard.

This particular program was initiated in response to how operators of small mine sites were responding to the management and maintenance of safety critical components on mobile plant.

This report summarises the assessment findings from the compliance priority program, which targeted mine operator's between March 2023 and August 2023 at:

- 38 surface extractives mine sites
- 1 surface metalliferous mine site

Assessment criteria

Several key elements (referred to as criteria) were assessed as part of this program and included:

Table 1. Compliance priority program criteria

Criteria number	Criteria
1	Does the mine have a process to ensure that prior to commissioning equipment on site, it is inspected by a competent person ensuring that it meets site standards and is fit for purpose?
2	The operator can describe the required frequency of pre-use inspections.
3	The operator can describe the requirements for recording the pre-use inspections.
4	The operator can list the safety critical components on the vehicle they are operating.
5	The operator can describe the safety critical component acceptance criteria.
6	The operator can describe the action required when a safety critical component defect is identified.
7	Operators can explain the fault rectification process.
8	What systems are used at the mine to manage service schedules for mobile plant?

Criteria number	Criteria
9	Who carries out maintenance work (scheduled services)?
10	Are maintenance records documented?

Findings

Overall, the findings were:

- 39 small mine site assessments were reviewed for this report.
- 390 individual findings for the program.
- 31 compliance notices were issued to 27 mines during the program.

The overall assessment compliance rating was 90% for the 10 assessed criteria questions (refer to Figure 1) ranging from:

- criteria number 1 finding was assessed at 74% compliance (the lowest compliance finding)

to:

- criteria number 9 finding was assessed at 100% compliance (the highest compliance finding).

Criteria number 1 and number 5 were assessed to rank in the 'orange colour category' rating between 65% and 80% compliance:

- Criteria number 1: Does the mine have a process to ensure that before commissioning equipment on site, it is inspected by a competent person ensuring that it meets site standards and is fit for purpose?
- Criteria number 5: The operator can describe the safety critical component acceptance criteria.

Figure 1. Summary assessment findings overall results by criteria

Q1	Does the mine have a process to ensure that prior to commissioning equipment on site, it is inspected by a competent person ensuring that it meets site standards and is fit for purpose?	74%
Q2	The operator can describe the required frequency of pre-use inspections.	91%
Q3	The operator can describe the requirements for recording the pre-use inspections.	95%
Q4	The operator can list the safety critical components on the vehicle they are operating.	85%
Q5	The operator can describe the safety critical component acceptance criteria.	78%
Q6	The operator can describe the action required when a safety critical component defect is identified.	94%
Q7	Operators can explain the fault rectification process.	95%
Q8	What systems are used at the mine to manage service schedules for mobile plant?	94%
Q9	Who carries out maintenance work (scheduled services)?	100%
Q10	Are maintenance records documented?	95%
	Grand Total	90%

Assessment compliance % rating colour code =

- Green (=100%)
- Yellow (>= 80% and <100%)
- Orange (>= 65% and <80%)
- Red (<65%)

The overall analysis of assessment findings ratings were documented and implemented were assessed at 85%.

Implemented but not documented was assessed at 8%.

Documented but not implemented was assessed at 5%.

The category not documented and not implemented was assessed at 2%.

The analysis of the assessed criteria documentation and implementation is summarised in Figure 2:

Figure 2. Overall assessment findings ratings
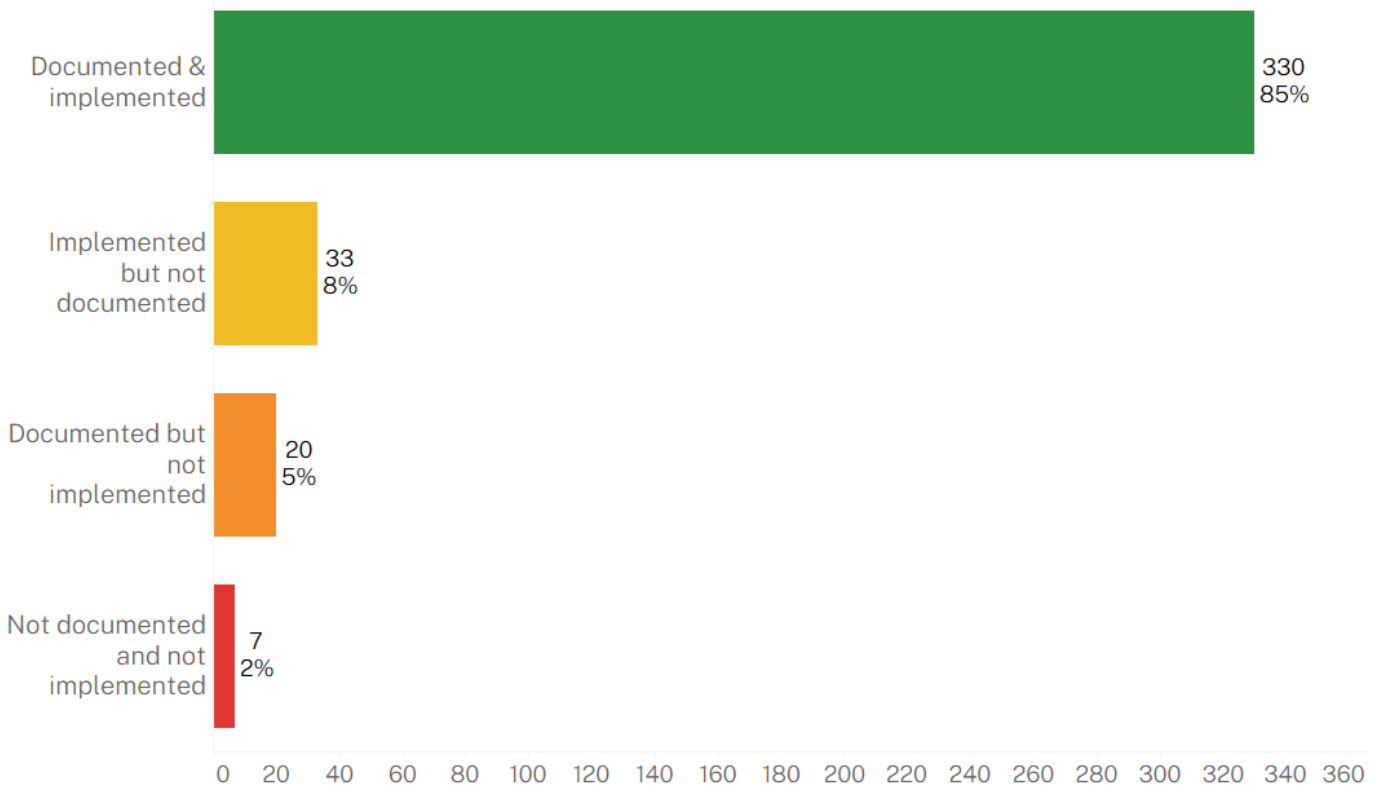
Notices issued

Of the **39** sites assessed under the inspection program, **27** separate mines were given **31** compliance notices relating to compliance with management and maintenance of safety critical components on mobile plant.

The notices issued for compliance with the management and maintenance of mobile plant were examined and Table 2 below lists the notices issued by type.

Table 2: Notices issued for the planned inspection program – compliance with management and maintenance of safety critical components on mobile plant.

NOTICE TYPE	TOTAL ISSUED	NUMBER OF MINES
s.23 notice of concerns	16	16
s.191 improvement notice	15	11
Total	31	27
		Note: some mines were issued multiple notices

Of the combined **31** notices issued, there were some common themes that were apparent throughout the program plan.

There were a range of poor compliance findings with assessment criteria questions, including:

- inadequate processes to ensure that before commissioning equipment on site that the mobile plant is inspected by a competent person ensuring that the mobile plant meets site standards and is fit for purpose
- mobile plant operators training and verification of competency with the safety critical systems on mobile plant and appropriate pre use inspections of the plant they are operating
- mobile plant operators training and knowledge of site defect management systems and reporting of mobile plant defects
- site safety management systems for mobile plant servicing and record keeping.

Recommendations

Based on the findings outlined in the report for each assessed criteria for compliance with the management and maintenance of safety critical components on mobile plant.

Small mine operators should consider the following recommendations:

- Review what actions have been taken to ensure effective procedural management during commissioning of mobile plant that inspections are undertaken by a competent person to meet with site standards and are fit for purpose.
- Review what actions have been taken to ensure mobile plant operators are trained and comply with the pre-use inspection and recording systems at the site.
- Review what actions have been taken to ensure mobile plant operators are trained and have undertaken verification of competency in the safety critical systems on the mobile plant they are operating.
- Review what actions have been taken to ensure mobile pant operators are trained and have undertaken verification of competency in the site defect management system.

Review what actions have been taken to ensure site safety management systems mange mobile plant servicing schedules and appropriate maintenance records are documented into the mine record keeping system.

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 516 High Street Maitland NSW 2320

Appendix A – Assessment criteria rating

Each assessed criteria is rated from 1 through 4 based on evidence supporting the expected control supports identified at the mine site:

Evidence supporting expected control supports

Expected control supports	Rating	Evidence supporting rating / comments
	4 3 2 1	

Assessment findings results are calculated based on the total points allocated to the assessed ratings as a percentage of the maximum possible points for each criteria group, and any findings rated as 'Not applicable' were excluded from the calculation.

Criteria assessed ratings and points

Assessed as	Rating	Points
Documented & implemented	4	4
Implemented but not documented	3	2
Documented but not implemented	2	1
Not documented and not implemented	1	0
Not applicable		

Findings results (points) with colours assigned as follows:

- Green (=100%)
- Yellow (>= 80% and <100%)
- Orange (>= 65% and <80%)
- Red (<65%)