

## **Compliance priority report**

Roads or other vehicle operating areas Stage 1 –  
Dumps and excavation areas - Surface coal mines

**January 2023 to May 2023**



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## More information

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September 2023	1	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, 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 which may not be related to a specific principal hazard.

This program reviewed 3 criteria topics related to the principal hazard management plan roads or other vehicle operating areas (ROVOA) at dumps and excavation areas at surface coal mines, including an:

1. inspector review of 12 months of site incident history reported to the Regulator under ROVOA legislation
2. inspector site evaluation of the operators’ understanding of traffic management systems and the training and instructions provided to operators relating to ROVOA site procedures
3. inspector site observations and evaluation of compliance with site rules related to ROVOA conducted with a site supervisor.

This report summarises the assessment findings from the compliance priority program that targeted 19 mine operators’ management of ROVOA on dumps and excavation areas at surface coal mines between January 2023 and May 2023.

# Assessment criteria

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

Table 1. Criteria for ROVOA stage 1 – dumps and excavation areas – surface coal mines

Criteria group	Criteria number	Criteria
Inspector conducts a management review of ROVOA incident history at sight	1	Review recently reported vehicle interaction incidents, near misses, and hazard reports (from past 12 months).
Inspector site observation and evaluation with supervisor	2	Two-way radios are used appropriately.
	3	Areas are demarcated.
	4	Sumps are demarcated and bunded off.
	5	Separation is achieved.
	6	Safe parking is observed.
	7	Separation distance between trucks and mobile plant in active areas.
	8	TARPs are correctly implemented (for dumps only).
	9	Required traffic management tools are available and in use.

Criteria group	Criteria number	Criteria
Inspector operator evaluation of understanding of traffic management systems, training and instructions	10	Traffic rules are available, understood, and communicated.
	11	Minimum windrow height and width.
	12	Lighting plant protection requirements.
	13	Correct use of light vehicle and heavy vehicle park-up areas.
	14	Confirm positive communication requirements with an operator.
	15	Confirm operator awareness of site procedure for tipping in the corner of a dump.
	16	Confirm workers can explain process when reversing equipment on dumps or excavation areas and are aware of site requirements.
	17	Confirm workers use tools or aids (eg. mirrors, proximity detection) when reversing equipment on dumps or excavation areas.
	18	Control of personal mobile devices and other distractions.
	19	The operator is aware of the outcomes of recent vehicle interaction event investigations.
	20	Operators aware of sites hazard reporting process.

## Findings

Overall, the findings were:

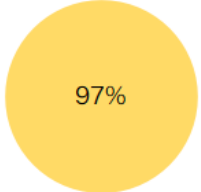
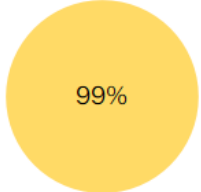
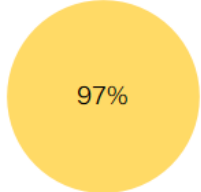
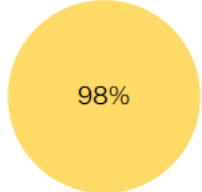
- 19 site assessments reviewed for this report
- 380 individual findings
- 12 notices issued to 4 separate mines under the program

The overall assessment compliance rating for the program was 98%.

All criteria group assessment findings rated 97% or above.

The assessment compliance % rating for each assessed criteria group is summarised in Figure 1:

Figure 1. Summary assessment findings overall results by criteria group

Inspector conducts a management review of ROVOA incident history at site.	Inspector operator evaluation of understanding of traffic management systems, training and instruction.	Inspector site observation and evaluation with supervisor.	Grand Total
 <p>97%</p>	 <p>99%</p>	 <p>97%</p>	 <p>98%</p>

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

The summary of assessment findings by individual criteria is summarised below:

**The lowest criteria assessment findings identified in a criteria group:**

Criteria group:

- Inspector site observations and evaluation with a supervisor

Criteria:

- Number 03: Areas are demarcated: 96% assessment finding
- Number 04: Sumps are demarcated and bunded off: 95% assessment finding
- Number 05: Separation is achieved: 92% assessment finding
- Number 08: TARPs are correctly implemented (for dumps only): 94% assessment finding

The assessment compliance % rating for each assessed criteria is summarised in Figure 2:

Figure 2. Summary assessment findings overall results by criteria

Inspector conducts a management review of ROVOA incident history at site.	01	Review recently reported vehicle interaction incidents, near misses, and hazard reports (from last 12 months).	97%	
	Inspector operator evaluation of understanding of traffic management systems, training and instruction.	10	Traffic rules are available, understood, and communicated.	96%
		11	Minimum windrow height & width.	96%
		12	Lighting plant protection requirements.	100%
		13	Correct use of light vehicle & heavy vehicle park-up areas.	100%
		14	Confirm positive communication requirements with an operator.	100%
		15	Confirm operator awareness of site procedure for tipping in the corner of a dump.	100%
		16	Confirm workers can explain process when reversing equipment on dumps or excavation areas and are aware of site requirements.	100%
		17	Confirm workers utilise tools or aids (eg. mirrors, proximity detection) when reversing equipment on dumps or excavation areas.	100%
		18	Control of personal mobile devices and other distractions.	100%
		19	The operator is aware of the outcomes of recent vehicle interaction event investigations.	96%
		20	Operators aware of sites hazard reporting process.	96%
Inspector site observation and evaluation with supervisor.	02	Two-way radios are used appropriately.	100%	
	03	Areas are demarcated.	96%	
	04	Sumps are demarcated and banded off.	95%	
	05	Separation is achieved.	92%	
	06	Safe parking is observed.	100%	
	07	Separation distance between trucks and mobile plant in active areas.	100%	
	08	TARPs are correctly implemented (for dumps only).	94%	
09	Required traffic management tools are available and in use.	100%		

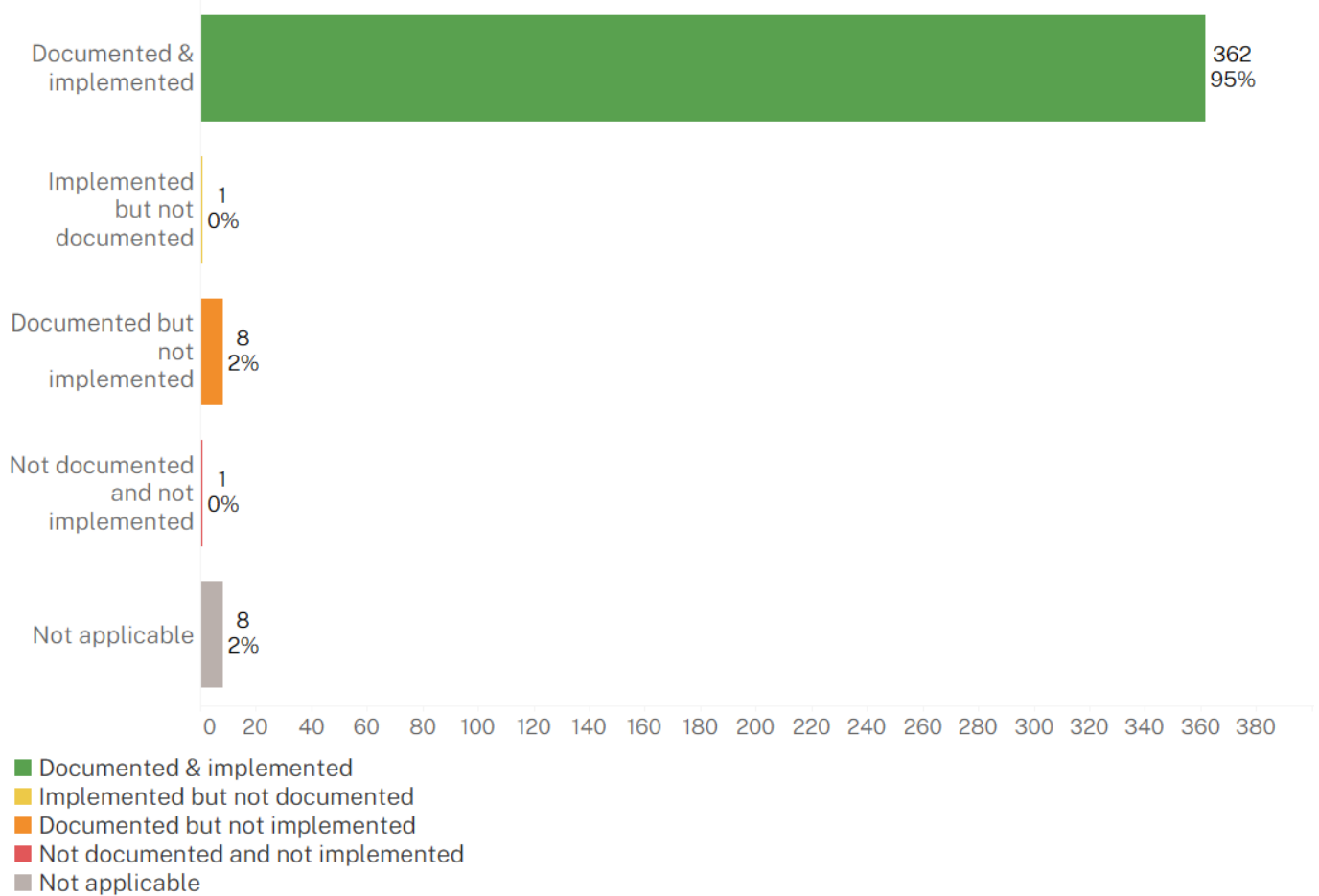
■ Green (=100%)  
■ Yellow (>= 80% and <100%)  
■ Orange (>= 65% and <80%)  
■ Red (<65%)

The overall 380 assessment findings identified:

- 362 (95%) of all assessments were assessed to be documented and implemented
- 8 (2%) of all assessments were assessed to be documented but not implemented
- 1 (0%) of all assessments were assessed to be not documented and not implemented.

The overall assessment findings ratings are summarised in figure 3:

Figure 3. Overall assessment findings ratings



## Notices issued

Of the **19** sites assessed under the inspection program, **4** separate mines were given **12** notices relating to compliance with new legislation, while some mines were given notices in relation to other matters.

The notices issued for compliance with new legislation were examined in detail and Table 3 below lists the notices issued by type.



Table 3: Notices issued for the planned inspection program – compliance with new legislation

NOTICE TYPE	TOTAL ISSUED	NUMBER OF MINES
s.23 notice of concerns	6	2
s.191 improvement notice	6	3
<b>Total</b>	<b>12</b>	<b>4</b> (some mines received multiple notices)

Of the combined 12 notices issued in total, there were some common themes that were apparent throughout the program plan criteria topics:

s.23 notice of concerns:

- Criteria number 01: Review recently reported vehicle interactions incidents
- Criteria number 02: Two-way radios are used appropriately
- Criteria number 05: Separation is achieved
- Criteria number 07: Separation distances between trucks and mobile plant in active areas
- Criteria number 17: The operator is aware of the outcomes of recent vehicle interactions and investigations
- Criteria number 20: Operators aware of site hazards reporting process

s.191 improvement notice

- Criteria number 03: Areas are demarcated
- Criteria number 04: Sumps are demarcated and bunded off
- Criteria number 05: Separation is achieved
- Criteria number 08: TARPs are correctly implemented (for dumps only)
- Criteria number 11: Minimum windrow height and width
- Criteria number 16: Confirm workers can explain process when reversing equipment on dumps or excavation areas and aware of site requirements

## Recommendations

Based on the findings outlined, mine operators should consider the following recommendations:

- Review site principal hazard management plan – roads or other vehicle operating areas (ROVOA) for specific topics including:
  - Two-way radio use and appropriate positive communications between operators is monitored and compliance enforced
  - Vehicle to vehicle separation distances in active mining areas are monitored and compliance enforced
  - Sumps and other operational areas are appropriately demarcated, monitored and compliance enforced
  - Minimum windrow heights and widths are monitored and compliance enforced
  - Operator training and information in site ROVOA operating TARPs and procedures are regularly assessed and updated and operator training registers maintained up to date.

## 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	<a href="mailto:cau@regional.nsw.gov.au">cau@regional.nsw.gov.au</a>
Incident reporting	To report an incident or injury call 1300 814 609 or log in to the <a href="#">Regulator Portal</a>
Website	<a href="http://www.resourcesregulator.nsw.gov.au">www.resourcesregulator.nsw.gov.au</a>
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				
	<table border="1"> <tr> <td>4</td> <td>3</td> </tr> <tr> <td>2</td> <td>1</td> </tr> </table>	4	3	2	1	
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%)