



NSW Minerals Council

Operational Rehabilitation Reforms - Review of Guideline Documents

Friday 30 April 2021

Summary of Comments

- Overall, the guideline documents appear to offer good guidance for industry. They are drafted in a logical manner which advises the leaseholder of their mandatory obligations and presents a range of guidance to assist leaseholders in meeting their rehabilitation compliance and reporting requirements.
- While the Regulator has indicated that the guidelines do not contain any additional mandatory requirements, there are several references to minimum requirements or benchmarks (e.g., the risks to be considered in a Rehabilitation Risk Assessment (RRA) and the example rehabilitation objectives and criteria) which could be interpreted as overly prescriptive. These minimum requirements effectively amount to many expected actions for industry to have considered and used in fulfilling their obligations. NSWMC is concerned that should these be applied inflexibly by the Regulator they may become quasi-mandatory requirements in practice. Industry notes there often appears to be a disconnect between what the Regulator advises and what eventuates in onsite inspections regarding how rehabilitation risks and controls are managed. The guidelines should aim to be outcomes-based rather than prescriptive and we encourage the Regulator in any further reviews of the guideline material to remove references to overly prescriptive elements, noting that these 'should be considered and may be used'.
- The guidelines place a strong emphasis on progressive rehabilitation in the Guidelines, which require rehabilitation to be carried out 'as soon as reasonably practicable' following disturbance. NSWMC recommends that the Regulator provide a definition for this term to ensure that leaseholders have a clear understanding of the expectations the Regulator has as to when rehabilitation must be carried out.
- The six guidelines together represent a large amount of information for industry to be cognisant of and will be practically challenging to implement across mine sites in addition to the Standard Conditions and multiple Form and Way documents. NSWMC encourages the Regulator to reduce any repetition where possible, or to streamline these documents so that they may provide greater value and assistance to leaseholders.
- There are some technical components of these guidelines (i.e., portal themes) that may require specific guidance from, and ongoing consultation with industry as to whether these are suitable and practical, and as such NSWMC is unable to provide any comprehensive analysis at this time.
- Specific issues have been outlined in the tables below, separated into each of the six guidelines.



Guideline 1: Rehabilitation Risk Assessment

Section	Content	NSWMC Comments/Recommendations
General comments		
Purpose of this guideline		
Purpose		
Our (Resources Regulator) role		
Our (RR) role	<i>The outcomes of ours risk assessment</i>	Update typo in 'ours'
Role of the Leaseholder - List of Requirements		
	To comply with mining lease conditions, the lease holder is required to:	The Guideline sets out a prescriptive set of items that the leaseholder is required to comply with. It is critical that this list is clearly required by the Conditions and Form and Way documents or more flexible language should be used to qualify the list. Alternatively, the following sentence advises that the mandatory requirements are set out in the Form and Way documents and could be relied upon without repeating their content.
	Page 4 Point 10 states that 'An updated/new rehab risk assessment will be required whenever any foreseeable hazard is identified that presents a risk to achieving the rehab objectives'	This could instead be '...presents a material risk' and this should then be defined – a hazard may present a risk but whether its significant or not should be considered. The Regulator discussed this matter with industry at the recent NSWMC meeting, where industry expressed concern that if a



		<p>site thinks they can address a potential risk through maintenance, an inspector could form a different opinion. The Regulator advised they were confident that if industry had noted a potential risk and how to address it that this would satisfy their obligations in undertaking a risk assessment.</p>
	<p>The guideline states that ‘the rehabilitation risk assessment should be used not only to establish a basis for managing a risk when planning an activity, but also used and updated (as required) to continuously evaluate risk and the effectiveness of controls used to prevent or minimise impacts’.</p>	<p>It is unclear what is meant by 'continuously' in this context, however it appears to raise questions from industry regarding the Regulator’s expectations for frequency of updating risk assessments. The Regulator advised at the recent NSWMC meeting they do not have a hard and fast rule for timings, and this depends on the size and scale of the site, though this does need to reflect what is happening on site, and this could be through an annual review, where monitoring might suggest factors which have not been covered or may need to be updated. In any case, records need to be kept for 7 years as required under legislation.</p>
<p>Role of the Leaseholder - Recommendations</p>		
<p>Table 1: List of Potential Risks</p>		
<p>1 - General</p>		<p>The list of controls is provided for consideration only. The Guideline is clear that the Risk Assessment does not need to consider all of these and its rigour should be informed by the risk profile of the site.</p>
<p>Glossary</p>		
<p>Annual rehabilitation report</p>	<p>As outlined in the Mining Regulation 2016 (proposed amendment).</p>	<p>This is the only time across the various guidelines that this definition has (proposed amendment) included in the definition of the ARR. Unsure why?</p>
<p>Department Guidance</p>		



Legislation and Regulations

The guidelines refer the users to the RR website for the various Form and Way and guideline documents.

Given there are numerous references to legislation and regulation, is it also worth including a section that directs users to all the relevant legislation and regulation that is referred to across the various documents to provide value and easy access to users?



Guideline 2: Rehabilitation Records

Section	Issue	NSWMC Comments/Recommendations
General comments		
	<p>This guideline provides examples of the types of rehabilitation records that leaseholders should keep and maintain to comply with their obligations.</p>	<p>While the Guideline is clear that this is only a list of records that may be required to demonstrate compliance with the conditions (and in many cases industry will already have undertaken), some of the suggestions require diligent records management and document control that will be quite onerous and challenging for leaseholders to undertake if stringently adhered to. For example, any updates to Rehab Risk Assessments and all records associated with an annual rehab report and forward program.</p> <p>NSWMC is concerned that the ‘typical records’ a leaseholder might keep to comply with their obligations may become a baseline against which the Regulator measures. NSWMC raised this point at the recent meeting, noting this would come down to how this is regulated in practice. The Regulator advised they would take this comment on board.</p>
Purpose of this Guideline		
Purpose		
Role of the Leaseholder - Large Mines		
Overview		
Rehabilitation risk assessment		



Rehabilitation management plan		
Annual rehabilitation report and forward program		
Progressive rehabilitation		
Glossary		



Guideline 3: Rehabilitation Controls

Section	Issue	NSWMC Comments/Recommendations
General comments		
	This guideline compiles a list of best-practice controls, which have been developed in consultation with industry, with the Regulator intending to update these on a regular basis.	NSWMC is concerned that, although this is a guideline, there is a risk that this list will be applied as mandatory in practice, though there is an acknowledgement that not all controls may be relevant to a particular mine site.
Purpose of this guideline		
Our (Resources Regulator) role		
Role of the lease holder - Controls		
Overview	Table 1 sets out a non-exhaustive list of issues and industry recognised best practice rehabilitation processes, controls, and techniques, that should be considered and used by lease holders for inclusion in a rehabilitation management plan and implementation of progressive rehabilitation in accordance with a forward program.	The words 'and used' should be deleted, as these issues should only be considered for use. The Regulator agreed at the recent NSWMC meeting to update this to be '...should be considered and where relevant could be used' and would be happy to update this table to reflect this point.
PHASE: ACTIVE MINING (LAND CLEARANCE)		
Baseline monitoring		
Before ground disturbance works		



During ground disturbance works		
PHASE: ACTIVE MINING (PRODUCTION)		
Soil and materials management	The guideline says to 'Limit soil stockpiles to less than two to three metres high and set out in windrows to maximise surface exposure and biological activity.'	<p>Industry can currently have 2m for topsoil and 3m for subsoil (combined 5m limit). This new restriction imposed by this guideline may create a larger disturbance footprint with its own negative consequences.</p> <p>Industry understands the science around biological value, but the focus really needs to be on salvage and preservation of the maximum volume of topsoil available. Due to increased stockpile footprint, limiting stockpile height discourages salvage of maximum volume, and is therefore counterproductive in practice.</p>
Materials handling		
Environmental monitoring		
PHASE: DECOMMISSIONING		
Management of potential heritage issues	Page 10 of the guideline 3 makes no reference to the various Environmental Management Plans that are required with development consent.	NSWMC notes that the Regulator is just one of the three or four regulators that every leaseholder is required to deal with.
Site services		
Buildings and fixed plant		
Buildings and fixed plant to be retained		



Rail loop and rail siding (if not required as part of the final land use)		
Equipment storage areas, hardstand areas, roadways, sealed and unsealed roads and car parks		
Management of carbonaceous/contamin ated material		
Hazardous materials management		
Underground infrastructure		
At the completion of exploration activity		
PHASE: LANDFORM ESTABLISHMENT		
Characterisation of waste materials (geochemical and geotechnical)		
Emplacement areas		
Reject emplacement areas and tailings dams (general controls)		
Tailings dams		



Landform design/shape		
Final voids		
Water management infrastructure		
Construction of creek/river diversion works		
Managing subsidence-affected areas		
As-constructed drawings		
PHASE: GROWTH MEDIUM DEVELOPMENT		
Before commencing rehabilitation (substrate preparation)		
During rehabilitation (general timing of rehabilitation activities)	The guideline states 'Where permissible, should revegetation be delayed due to unsuitable seasonal conditions, undertake temporary stabilisation measures (e.g. sterile cover crops, erosion and sediment controls) to avoid erosion and further land degradation.'	The suggestion that in unfavourable seasonal conditions for rehabilitation that cover crops and temporary stabilisation methods be employed is impractical. In drought conditions, a sterile cover crop will unlikely germinate and just deplete moisture when it does rain.
During rehabilitation (general methodologies)		
PHASE: ECOSYSTEM AND LAND USE ESTABLISHMENT		
During rehabilitation (revegetation – native ecosystem)		



During rehabilitation (revegetation – agricultural land use)		
Rehabilitation establishment inspections		
Rehabilitation monitoring program		
Rehabilitation management and maintenance program		
PHASE: ECOSYSTEM AND LAND USE DEVELOPMENT (MANAGEMENT OF REHABILITATED LANDS)		
During rehabilitation (revegetation – native ecosystem)		
Glossary		
General comments		
Formatting	There are several instances where there is some inconsistent highlighting of the checklists, as well as instances where sections of some phases or sub-phases seem to carry over to the next page where there appears to be sufficient space on the previous page.	Specific amendments that may be required include: <ul style="list-style-type: none"> • Page 5 - Under ‘Before ground disturbance works’ heading, update the first section starting with ‘Implement programs to maintain/improve the biodiversity value...’ to grey shading to improve differentiation of checklist items. • Page 9 - Under ‘Materials handling’ heading, update the first section starting with ‘Develop specific strategies...’ to grey shading to improve differentiation of checklist items.



- **Page 10 - Update heading for 'environmental monitoring' to black text.**
- **Page 10 - Update 'soil and land capability' to be a dot point.**
- **Page 11 - Update heading for 'Buildings and fixed plant' to black text.**
- **Page 14 - Under the 'At the completion of exploration activity' heading, update section with 'Removal of concrete and footings.' to grey shading to improve differentiation of checklist items.**
- **Page 24 - Shift heading for 'During rehabilitation (general timing of rehabilitation activities)' to the next page to improve readability.**
- **Page 26 - Under the 'During rehabilitation (revegetation – native ecosystem)' heading, update section starting with 'occurs. Where adverse seasonal conditions (e.g., drought)' to grey shading to improve differentiation of checklist items.**
- **Page 27 - Update the sections at the bottom of the page, there are two checklist boxes listed under the same colour.**



Guideline 4: Mine Rehabilitation Portal

Section	Issue	NSWMC Comments/Recommendations
General comments		
	It appears that little has changed with this guideline from its previous iteration. The Regulator confirmed in the recent NSWMC meeting that they would be developing training videos and detailed workshops to help industry in this technical process.	NSWMC has previously expressed concerns about the types of data the portal would display being readily available to the public may arise in potential misuse or misrepresentation of industry rehabilitation data, though we acknowledge the Regulator's advice that the portal would only incorporate polygon GIS information similar to that which is already publicly available via Google Earth. NSWMC welcomes the additional video content and workshop sessions to help improve industry knowledge under the portal to successfully upload all required data.
Purpose of this guideline		
Mine rehabilitation portal		
	This will allow for collection of the spatial data into a centralised geodatabase, which will be used by the us to monitor and regulate the rehabilitation of mining activities.	Update to either 'used by us' or 'used by the Department'.
Portal functions		
	The mine rehabilitation portal provides a secure portal (or web application) to allow lease holders and us to submit and review spatial information within the web application's map viewer.	This sounds a bit jumbled. Would something like '...to allow leaseholders to submit, and the Department to review, spatial information...' work better?
Computer environment information		



Portal access and account registration		
		Though the email is listed and links to the correct address, this could be highlighted in blue text or bolded to differentiate.
Spatial data format requirements		
Theme details and submission requirements	Bottom sentence has incorrect formatting. You will be required to enter the mine site you require access for. You can register for access to multiple mine sites (see ■ Figure 22).	We assume this should just be (see Figure 2) on the end of the sentence without the dot point included. Suggest this be amended.
	Further, page 7 appears to be completely blank.	Remove page 7 or provide advice that 'this page has been left intentionally blank'. Unsure if information is missing from this page.
Schema requirements		
Accuracy	The current and final landform contours are required in 1 metre intervals (elevation AHD).	Are 1m contours achievable and practical?
Submission procedure		
Overview	Link to portal does not appear to work, though it appears it may include a link to a local drive for the guideline drafter's computer. file:///C:/Users/prousesx/AppData/Local/Hewlett-Packard/HP%20TRIM/TEMP/HPTRIM.1408/minerehabilitationportal.nsw.gov.au	Does a portal application need to be downloaded on your computer for this link to work? Or is this a personal link for the guideline author that requires updating. Suggest that RR review whether this link to be updated, as perhaps it should direct users to: minerehabilitationportal.nsw.gov.au
File upload	Same link is included	See above comment in Overview
Online tracing		



Aerial imagery upload		
Data review		
Access to supplied data		
Glossary		



Guideline 5: Rehabilitation Objectives and Rehabilitation Completion Criteria

Section	Issue	NSWMC Comments/Recommendations
General comments		
	The RMP itself will not be approved but the Objectives and Completion Criteria (O&CC) – which is in most cases an appendix to the RMP will be approved.	The Regulator advised in the recent NSWMC meeting that where sites are yet to have their O&CC approved, they should be included in the RMP as preliminary only.
Purpose of this guideline		
Our (Resources Regulator) role		
Role of the lease holder		
	4. re-submit the rehabilitation objectives and rehabilitation completion criteria to us for approval whenever an amendment is made	Any directive on how significant an amendment needs to be to require a re-submission?
Final land use and mining domains		
Final land use domains		
Mining domains		
Preparing rehabilitation objectives and rehabilitation completion criteria		
Use of analogue sites		
Consistency with the development consent		



<p>Stakeholder consultation</p>	<p>The guideline states that additional consultation (as relevant) should occur with relevant stakeholders if rehabilitation objectives and/or rehabilitation completion criteria are substituted, amended, or refined during the life of the mine.</p> <p>Relevant stakeholders will include anyone who may be affected by the mining operations, including rehabilitation, carried out on the lease land such as: (and then provides a list of potentially relevant stakeholders.</p>	<p>The criteria for consultation must be narrowed as it is currently unlimited. For example, the following parties may be affected by the mining operation but do not warrant consultation for rehabilitation objectives and completion criteria:</p> <ul style="list-style-type: none"> - Rail companies - Contractors to the mining industry - Motorists - Unions - Unrelated agencies - e.g., Treasury / Safework - Activist groups remote from the mining operation <p>Further, the requirements for additional consultation should be qualified as “materially substituted, amended or refined...”.</p> <p>How significant does a substitution, amendment or refinement need to be to trigger additional consultation?</p>
<p>Example rehabilitation objectives and rehabilitation completion criteria for large mines</p>	<p>It is the intent that the examples provided may be used as the minimum benchmark.</p>	<p>Are the examples reflective of ‘minimum benchmarks’?</p>
<p>Example rehabilitation objectives and rehabilitation completion criteria for small mines</p>		
<p>Glossary</p>		

Table 1: Example rehabilitation objectives and rehabilitation completion criteria for large mines

	Page 20, second row, fourth section from left. All drill cores have been removed and taken either to an authorised storage or an disposal location.	Update 'an disposal' to 'a disposal'
	Page 20, fourth row, final column Engineering report/statement, pug and abandonment log , photos, as-constructed drawings, records of fill materials and concrete plugs, filling methods etc.	Update to 'plug and abandonment log'
	Page 28, second row, fourth column, List of indicators is justified, which is out of step with the other boxes.	Remove justification of text in box and align right.
	Page 29, third row, fourth column. Supporting information – formal surveys or wildlife cameras of ground and/or litter invertebrates, small reptiles, small mammals, birds, scats, tracks, burrows, claw marks on trees.	Should this supporting information be included instead under the final column outlining 'EXAMPLE JUSTIFICATION/ VALIDATION METHODS (evidence that the benchmark has been achieved)', given the corresponding box is empty?

Table 2: Example rehabilitation objectives and rehabilitation completion criteria for small mines

	Page 32 Some Rehabilitation Objectives headings are emboldened whereas others are not.	Suggest review of formatting as no rationale provided as to why certain headings are bold and others are not.
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Guideline 6: Achieving Rehabilitation Completion (Sign-Off)

Section	Issue	NSWMC Comments/Recommendations
General comments		
		NSWMC welcomes the inclusion of 'sign-off' considerations in these guidelines and notes the Regulator's advice that this is a 'working' guideline and will need to be updated as more rehabilitation is signed off in the future.
Purpose of this guideline		
		The Guideline generally sets out the broader rehab process and is quite repetitive. Could be summarised considerably.
Regulatory requirements for rehabilitation		
Requirements under the Mining Act 1992		
Regulatory requirements – other legislation		
Relationship between development consent and mining lease requirements for a rehabilitation management plan		
Role of the lease holder		



Our (Resources Regulator) role		
Achieving rehabilitation completion		
Step 1: Undertake a rehabilitation risk assessment		
Step 2: Establish rehabilitation outcomes		
Step 3: Prepare and revise the rehabilitation management plan (large mines only)		
Step 4: Develop a forward program for rehabilitation activities		
Step 5: Implement rehabilitation, monitor progress, and actively manage		
Step 6: Demonstrate attainment of rehabilitation outcomes (rehabilitation completion)	The guideline states that ‘Consultation has been undertaken with relevant government agencies and any regulatory requirements under other legislation have been satisfied (refer to section above “Regulator requirements – other legislation”).’ The guideline goes on to list various other agencies to consult and seek ‘sign off’ from.	NSWMC is concerned that this process states that essentially the Regulator will not relinquish until all other agencies have signed off. We are unsure if this has ever been tested and may result in extended delays obtaining sign off or feedback from other agencies.
Our assessment process		
Other considerations		



Changes to final land use		
Ongoing rehabilitation obligations under the Mining Act 1992	In the event of failed rehabilitation of land previously accepted as complete, we will undertake an investigation to determine the cause and factors contributing to the failure. We will then determine the appropriate response and if necessary, regulatory action is required against the former lease holder based on the circumstances and nature of the issue.	<p>Could this instead be written as ‘...and if necessary, regulatory action may be required against the former lease holder...’. Sounds quite definitive that regulatory action will be required in all cases.</p> <p>Industry also questions the term ‘failed rehabilitation’ being included. Rehabilitation can fail to meet regulator expectations and while individual aspects of the rehabilitation process may fail (e.g., vegetation can fail to germinate, and erosion and sediment control structures can fail), rehabilitation itself does not fail.</p> <p>Rehabilitation may require maintenance to progress it along a trajectory towards meeting completion criteria, but if it has already been accepted as complete (by the regulator) then it is complete.</p> <p>The Regulator may need to define ‘failure’ regarding rehabilitation in this instance – there needs to be a material degree of failure which is beyond normal land maintenance requirements.</p>
Glossary		