

February 2024

Targeted assessment program

Guidance note: Decommissioning

Purpose of this guidance note

Important: Information provided here is intended as guidance only and is not intended to be relied upon as a comprehensive list of all controls that may apply to risks associated with mine site rehabilitation. Mine operators must undertake risk assessments and implement controls relevant to the risk profile of their mining operation.

The Resources Regulator manages the risks to rehabilitation as part of a risk-based and outcomes-focused approach to compliance and enforcement. The Regulator's risk-based intervention includes the ongoing identification and verification of risk profiling, incorporating risk control measure verification and targeted assessments focussing on critical risks and the critical controls required to mitigate these risks.

Further details are available on our website at resources.nsw.gov.au/resources-regulator/mine-rehabilitation/rehabilitation-compliance

An important part of the Regulator's compliance and enforcement strategy involves implementing a scheduled and targeted assessment program for mines. The Regulator has developed targeted assessment programs (TAPs) around identified critical controls.

The primary aim of a TAP is to assist industry with continual improvement in rehabilitation outcomes. The TAPs comprise inspections across NSW mine sites to determine whether measures have been identified and implemented to facilitate sustainable rehabilitation outcomes.

The TAPs proactively assesses how effectively a mine controls risks and implements the preventative and mitigating controls that are critical in planning for and implementing mine site rehabilitation. Each TAP focuses on the implementation of a specific critical control.

The decommissioning TAP comprises a targeted assessment of how a mine site manages risks associated with decommissioning, to achieve sustainable rehabilitation outcomes. The TAP involves both documentary and on-site assessment, to draw conclusions and make recommendations for continual improvement.

This guidance note may help mine operators understand the range of issues that are assessed by the Regulator as part of the decommissioning TAP.

Assessment objectives

The standard conditions of mining leases set out in Schedule 8A of the Mining Regulation 2016 require lease holders to rehabilitate land and water in the mining area that is disturbed by activities under the mining lease as soon as reasonably practicable after the disturbance occurs. The key requirements set out in the standard conditions can be summarised as follows:

- To rehabilitate land and water in the mining area that is disturbed by activities under the mining lease as soon as reasonably practicable after the disturbance occurs (clause 5).
- To ensure rehabilitation of the mining area achieves the final land use. In other words, rehabilitation achieves the final landform and land use as set out in the rehabilitation objectives statement, the rehabilitation completion criteria statement and (for large mines) the final landform and rehabilitation plan (clause 6).
- To conduct a rehabilitation risk assessment and implement the identified control measures to eliminate, minimise or mitigate the risks to achieving the final land use (clause 7). This includes undertaking a risk assessment whenever a reasonably foreseeable hazard is identified that would present a risk to achieving the final land use (clause 7(3)(c)).
- To prepare a forward program that includes the requirement that rehabilitation of land and water disturbed by mining activities under the mining lease must occur as soon as reasonably practicable after the disturbance occurs (clause 13(1)(c)).
- To ensure the forward program includes a schedule of mining activities and the spatial progression of rehabilitation through its various phases for the next 3 years (clauses 13(1)(a) and (b)) To implement the matters set out in the rehabilitation management plan, including the timeframes for implementation of these matters (e.g. rehabilitation) as specified in the forward program (clause 10(4)).
- To prepare an annual rehabilitation report that describes the rehabilitation undertaken over the annual reporting period and demonstrates progress made through the phases of rehabilitation provided for in the forward program (clauses 13(2)(a) and (b)).

The TAP comprises a targeted assessment of decommissioning to ensure measures have been identified and implemented to facilitate sustainable rehabilitation outcomes. The objectives of the TAP include:

- ensuring the range of risks associated decommissioning are identified and appropriate controls are in place to facilitate sustainable rehabilitation outcomes
- heritage sites are appropriately identified, assessed and managed in accordance with approvals or heritage plan
- contamination is assessed and remediation undertaken to removes/mitigate/minimises risks of exposure to contamination to post-mining land users and pollution release to the environment
- mining structures are removed, retained or isolated in a way which removes/mitigates/minimises risks of contamination and safety of post-mining land users. Retention of infrastructure is consistent with the final land use and associated planning approvals.
- sealing mine openings and boreholes to restrict/prevent community and fauna access/exposure to underground workings and address impacts (incompatibility) with the final land use.

- compliance with the regulatory obligation to commence rehabilitation as soon as reasonably practicable and the achievement of the final land use

It should be noted that the specific need to implement the above controls will be based on the risks as well as scope of activities being undertaken on a mine site.

Documents and records to be reviewed

The documentary assessment component of the TAP will include a review of the following types of documents and records (as relevant). This is not an exhaustive list and other documents for review may be identified during the site inspection.

- Rehabilitation risk assessment(s)
- Rehabilitation management plan (RMP)
- Annual rehabilitation report
- Forward program
- Final land use and rehabilitation plan
- Infrastructure decommissioning plans
- Heritage assessments
- Building dilapidation report
- Building structural integrity reports
- Mine sealing design records
- Hazardous building surveys
- Contamination assessments and remediation action plans (for contamination)
- Stakeholder engagement records (in particular, land owner agreements)
- Life of operations (asset) plans
- Conceptual closure plans.

Details of the assessment

The TAP involves both documentary and on-site assessment. A summary of the assessment objectives and the assessment considerations for the revegetation TAP is provided below. It is relevant to note that not all assessment considerations will be relevant to all mines.

To ensure the range of risks associated decommissioning are identified and appropriate controls are in place to facilitate sustainable rehabilitation outcomes.

The site rehabilitation risk assessment(s) provides for the following scope:

- Identifies, assesses and evaluates the risks that need to be addressed to achieve the rehabilitation outcome documents.
- The risk assessment identifies site specific risks associated with decommissioning.
- The risk assessment identifies suitable controls and strategies to treat the identified risks. Note that the observations made in the remaining sections of the TAP will inform the adequacy of the risk assessment

- The risk assessment is relevant to current mining operations.
- The assessment identifies how the effectiveness of risk control measures will be assessed.
- The risk assessment was produced by a team of appropriately skilled and experienced people from the workforce with responsibilities for mine rehabilitation.
- Have the controls or validation of the controls been assigned to a responsible and suitably qualified position?
- Where multiple risks assessments have been conducted, is there a centralised document (e.g. risk register) that links all assessments to the Schedule 8A requirement?

Heritage sites are appropriately identified, assessed and managed in accordance with approvals or heritage plan.

A heritage assessment provides for the following scope:

- Heritage risk assessed in the rehabilitation risk assessment.
- Heritage management captured in the RMP – Section 6.2.1.(m) (it may refer to a separate heritage assessment).
- Identification of all potential heritage sites undertaken and heritage value assessed.
- Identification and engagement of appropriate stakeholders relating to heritage sites.
- Heritage strategy/management identified i.e. archival recordings, salvage, preservation.
- Heritage management measures identified in heritage management plan have been implemented.
- Heritage is nominated as a land use or landform feature in the final landform and rehabilitation plan.
- **Contamination is assessed and remediation undertaken to removes/mitigate/minimise risks of exposure to contamination to post mining land users and pollution release to the environment.**

A contamination assessment covers the following scope:

- Contamination assessment conducted in accordance with relevant guidelines i.e. National Environment Protection Measures (NEPM) guidelines.
- Hazardous building surveys conducted i.e. identification of asbestos, polychlorinated biphenyls (PCBs), etc.
- Contamination assessment/hazardous building surveys in the RMP – Section 6.2.1.(e) and 6.2.2.(d) and (e).
- Investigation and intrusive sampling for high risk areas i.e. fuel/oil storage.
- Remediation action plans developed for contaminated site management (when identified).
- Validation assessment for contaminated areas to verify they are appropriately treated/removed.

Mining structures are removed, retained or isolated in a way which removes/mitigates/minimises risks of contamination and safety of post mining land users. Retention of infrastructure is consistent with the final land use and associated planning approvals.

A decommissioning and demolition strategy covers the following scope:

- Fate (retain/remove) of all structures identified.
- Justification for removal/retention of structures provided.
- Stakeholder consultation conducted, most importantly with land owner consent.
- Time frame for decommissioning/demolition.
- Consideration of hazardous building materials.
- Demolition strategy outlined in the RMP – Section 6.2.2.(b).
- Eventual fate of structures (offsite waste disposal or onsite burial).
- Consideration of approvals required under other legislation.

A strategy for retained structures covers the following scope:

- Fate (retain/remove) of all structures identified/justification/ stakeholder consultation.
- Assessment of planning approvals that apply to structures i.e. retention allowable under existing approvals.
- Structure assessments (engineering reports) to verify suitable for retention.
- Ongoing maintenance requirements identified.
- Retainment strategy outlined in the RMP – Section 6.2.2.(c).
- Retained infrastructure nominated as a landform feature in the final landform and rehabilitation plan.

A strategy for hazardous areas covers the following scope:

- Hazard type and associated key risks identified.
- Extent of hazard isolation are identified (including potential for area to increase with time).
- Methods to isolate hazardous area to post mining land users (human and fauna) identified.
- Ongoing maintenance/ management identified and mechanism to transfer to subsequent land owners/ managers identified.
- Assessment of planning approvals that apply to hazard.
- Hazardous areas outlined in the RMP – Section 6.2.2.(c)
- Hazards identified as a final landform feature in the FLRP.

Seal mine openings and boreholes to restrict community and fauna access/exposure to underground workings and address impacts (incompatibility) with the final land use.

A sealing strategy covers the following scope:

- Identification of all seal locations (mine entries and boreholes).
- Risk assessment for unknown adits/shafts i.e. historical workings.
- Identification of access requirements for seal construction (especially access via underground workings).
- The design of the seals has been assessed (can be conceptual in early stages, with more detailed engineering design required during later stages/closure) and takes into account:
 - the need to eliminate community and fauna access

- the need to contain mine gas
- the need to contain a hydrostatic head of water and/or artesian head of groundwater in bores
- the integrity of the surrounding strata.
- Nomination of likely maintenance and monitoring requirements for seals post construction.
- Sealing strategy outlined in the RMP – Section 6.2.2.(f).
- Other environmental issues that have arisen during mine operation that were not initially assessed have been taken into account i.e. micro-bat habitat.

Assessment stages, reporting and feedback to industry

TAPs are managed in 3 stages:

Stage 1: pre-arrival arrangements, review and information exchange

At least 2 weeks before a TAP, participant sites will receive notification of the forthcoming TAP. This notification will include::

- assessment visit schedules
- assessment team composition
- focus areas for the assessment (e.g. a specific critical control or compliance priority)
- resources required by the assessment team, including the necessary site personnel (e.g. technical experts) that will be required to be interviewed and participate in the site inspection
- tools to be used in the assessment.

Stage 2: on-site assessment

This site visit will be looking for a demonstration that:

- the range of risks to rehabilitation that have been identified
- the mine site has implemented appropriate systems, procedures and controls to facilitate sustainable rehabilitation outcomes
- systems, procedures and controls are functional in practice and effective at controlling the risks
- the workforce is competent and confident about the risk controls relevant to their area and level of responsibility
- based on monitoring, the effectiveness of controls are evaluated and the risks are reviewed to facilitate continual improvement.

Stage 3: Findings, recommendations, follow up

The assessment team will conclude whether, and to what extent, the mine site has demonstrated:

- compliance with legislative requirements
- how relevant components of the rehabilitation management system comply with the minimum legislative requirements

- how well the rehabilitation management and monitoring plans are being implemented
- satisfactory performance in achieving sustainable rehabilitation outcomes on the ground.

The assessment team will debrief site management on their preliminary findings at the completion of the site assessment. An assessment finding letter and/or a notice under section 240 of the *Mining Act 1992* may also be issued to the mine following completion of the site assessment.

A report providing an overview of the findings and recommendations of each of the completed TAPs will be prepared and published on our website as a learning resource.

A follow-up site inspection may also be conducted to:

- verify the progress made by the mine on actioning the recommendations outlined at the initial debriefing
- verify progress made on addressing any matters outlined in any assessment finding letter
- verify compliance with any directions outlined in a section 240 notice
- investigate any potential alleged breaches identified as part of the TAP.

What you should do to prepare for a TAP

Review your strategy and capacity to control risks and managing compliance with the preventative and mitigating controls that are critical in planning for and implementing mine site rehabilitation. Sites should ensure measures have been identified and implemented to facilitate sustainable rehabilitation outcomes and that practices are in line with:

- requirements under the *Mining Act 1992*
- conditions of the mining lease(s), specifically Schedule 8A of Mining Regulation 2016
- carrying out rehabilitation progressively, that is, as soon as reasonably practicable following disturbance
- commitments outlined in the forward program and rehabilitation management plan
- achieving the approved final land-use(s)
- available guidance material.

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