EPA comments on Improving Mine Rehabilitation in NSW discussion paper

General Comments

Issue	Recommendation or suggestion
General comment on the proposed reforms set out in the discussion paper	The EPA's interest in mine rehabilitation stems from the potential impacts of unrehabilitated or poorly rehabilitated land on the environment. In particular, this has the potential to impact on air and water quality. To minimise these impacts, the area of land disturbed by mining must be minimised, and rehabilitation of disturbed land must be effective. The EPA commends the Department of Planning and Environment for its work to improve the rehabilitation of mined areas in NSW. The EPA strongly supports proposals in the discussion paper that aim to ensure that: (1) rehabilitation is considered as an integral part of a mine's development; (2) rehabilitation is progressive; and (3) final landforms and voids are stable and non-polluting, both in terms of air and water quality.
Roles of regulatory agencies	The EPA notes that discussion paper does not address changes to the functions of other regulatory agencies as a result of the proposed reforms outlined in the discussion paper. The EPA requests to be advised if it will incur any additional regulatory responsibilities with the introduction of the policy, including any indirect regulatory responsibilities. This would assist with improving understanding on how this policy interacts with the EPA's role, avoid inconsistent policy/approaches and reduce the potential for overlap.

Specific comments

Section	Issue	Recommendation or suggestion
Proposal 1: Adopt policy principles to guide the regulation of mine rehabilitation	Managing financial risks of environmental liabilities	The EPA supports the proposals to manage financial risks of environmental liabilities from State significant mining developments. The EPA recommends the proposals may be further strengthened by: 1) requiring an independent review of the Rehabilitation Cost Estimate prepared by the proponent to impartially verify the amount of security deposit needed to cover the anticipated costs of rehabilitation, along with periodic independent reviews during the project's operational phase. 2) a requirement for leaseholders to maintain adequate environmental insurance coverage for accidental damage and on-going residual risks. 3) public access to rehabilitation cost estimate and security deposit information to enhance accountability and stakeholder confidence in financial risk management mechanisms.
Proposal 1: Adopt policy principles to guide the regulation of mine rehabilitation	Returning disturbed areas to conditions that are safe, stable, non-polluting. The state government is currently rehabilitating former mine sites with legacy issues causing discharge of contaminated mine water to the environment. For some modern mine sites, substantial improvements have been made to the handling and placement of waste rock and tailings.	The EPA recommends that post-closure mine water issues (e.g. controlled or untreated continuous discharges that are currently left to the government to manage and mitigate), should be the responsibility of the proponent. The EPA suggests that the policy acknowledge the issue that in certain circumstances the only way to minimise environmental impacts of discharge from mine sites post-closure is with Reverse Osmosis technology and/or treatment wetlands.
Proposal 1: Adopt policy principles to guide the regulation of mine rehabilitation	Rehabilitation and water discharges	The EPA recommends that the policy: • more explicitly address water discharges from mining sites so that rehabilitation ensures the sources of water do not cause pollution. • specifically address intercepted groundwater from underground mines and from areas such as rock emplacements.

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Proposal 2: Develop a policy framework for the assessment of final voids.	Backfilling of mining voids Waste rock dumps and tailings dams can present an ongoing risk to the environment and community due to the potential of structural failures and discharge of leachates to ground and surface water.	The EPA supports the use of mining voids for backfilling with waste rock and/or tailings as a more stable method of waste containment. All necessary environmental assessments should be undertaken prior to the use of final voids for backfilling to avoid impacts to groundwater or surface water systems. If required, the use of liners or other appropriate means may be required to effectively support the environmental performance of final voids. Where appropriate the assessment should also include a proposed groundwater monitoring network and monitoring schedule to verify predictions, including a contingency plan in the event that leakage to surrounding groundwater is detected.
Proposal 3: Improve consideration of rehabilitation and closure in the early stages of mine planning	Early rehabilitation considerations for underground mines	The EPA suggests that consideration be given to specific requirements at the planning phase to make sealing and rehabilitation of underground mines easier e.g.: • only allow mines to be constructed where water is pumped from workings • ensure all mine entries are able to withstand options for final sealing (for those with suitable groundwater hydraulic head sealing is not a viable option for consideration is the pressure is too great) The EPA suggests that economic feasibility of sealing and rehabilitation should also be considered in the planning stage.
Proposal 3: Improve consideration of rehabilitation and closure in the early stages of mine planning	Addition of reasonable, feasible rehabilitation practices A number of underground mines regulated by the EPA have employed adit technology for the drainage of water from the mines. This has caused legacy issues in relation to water pollution and resulted in great difficulty in sealing the mines on closure.	The EPA recommends that a register of reasonable and feasible rehabilitation practices be developed to supplement the general principles outlines in the discussion paper.