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Russell Vale Colliery Underground Expansion Project (09_0013): Response to Revised Preferred Project Report (PPR)

Dear Jack,

I refer to the email dated 30 July 2019 inviting the Resources Regulator to provide advice on the Revised Preferred Project Report (PPR) for Project **Russell Vale Colliery Underground Expansion Project**.

Development Details

The Russell Vale Colliery is an underground coal mine located approximately 8 kilometres from Wollongong, NSW. The **Russell Vale Colliery Underground Expansion Project** proposes to maintain coal production at 1 million tonnes per annum and have a projected mine life of 5 years.

The revised preferred project would involve:

- first workings mining of the Wongawilli seam in the "Wonga East" area only;
- retrieving the current longwall mining equipment for sale;
- constructing and operating a coal processing plant;
- redesigning the pit top layout to reduce amenity impacts; and
- continued road haulage of coal to Port Kembla Coal Terminal for export.

Previous Advice

The Resources Regulator has previously provided the following advice:

- Email with SEARs requirements sent to Umwelt (consultants) on 20 June 2019 - refer **Attachment 1**.

Environment and Rehabilitation

Compliance Operations within the Resources Regulator has responsibility for providing strategic advice for environmental issues pertaining to the proposed project in so far as they relate to or affect rehabilitation.

The Resources Regulator advises the Department of Planning, Industry & Environment – Resource Assessments that the information provided in the Revised Preferred Project Report (PRP) does not adequately address the issues raised in the submission from the Resources Regulator (email sent to Umwelt dated 20 June 2019, Reference: DOC19/529486).

Section 2.4 (Rehabilitation and Closure) of the Revised PRP states:

“Given the intended continuing use of the site (subject to future planning approval), decommissioning and closure of the Russell Vale Colliery Pit Top facilities are not proposed immediately following the completion of the UEP. Rather, it is intended that the site would be maintained in care and maintenance until such time as the planning assessment process is completed. If consent for continuing use of the site is not forthcoming, WCL will prepare and implement a detailed mine closure and rehabilitation plan in consultation with the Resources Regulator and other relevant government agencies and stakeholders.

Until that time, the existing rehabilitation and mine closure strategy outlined in the current Russell Vale Colliery Rehabilitation Management Plan, Preliminary Works Project Environmental Assessment (ERM 2011) and Rehabilitation Objectives established under Schedule 3 Condition 42 the Preliminary Works Project Approval (PA 10_0046) continue to remain valid.

WCL will continue to progressively rehabilitate and decommission non-critical infrastructure as they are phased out of operations or become non-critical to potential future land use options at the colliery. Rehabilitation within the site will continue to be managed in accordance with the existing approved Russell Vale Colliery Rehabilitation Management Plan.

WLC will review and update the existing Rehabilitation Management Plan to reflect approval requirements and commitments associated with the Revised Preferred Project and refinements to the site water management system proposed as part of MOD4”.

The Revised PRP refers to existing Rehabilitation commitments and conditions for the Russell Vale Colliery Preliminary Works Project (PA 10_0046). A review of the current Development Consent for PA 10_0046 (MOD 3, approved 10 October 2014) shows Schedule 3, Conditions 42-44 are applicable to Rehabilitation.

The Resources Regulator has two issues of concern with the position stated in the Revised PRP:

1. It is understood that the Russell Vale Preliminary Works Project (PA 10_0046) is proposed to be replaced/superseded by the Russell Vale Colliery Underground Expansion Project (09_0013) if this is approved. If this were the case, it would be inappropriate to refer to Rehabilitation Commitments in a separate Development Consent and a separate Environmental Assessment.
2. The initial Preferred Project Report for the Underground Expansion Project, (undated but circa 2013 – link copied below), includes a detailed section on Rehabilitation (Section 2.1.2):
<https://majorprojects.accelo.com/public/5d171d78b91de44731631bf763c19c3b/NRE%20Underground%20Expansion%20Project%20-%20Preferred%20Project%20Report.pdf>
There is no explanation as to why this Rehabilitation section was included in the initial PRP but then removed from the revised PRP.

The Resources Regulator would expect an equivalent section in the revised PRP. This would ensure Rehabilitation aspects meet the Resources Regulator SEARs and that rehabilitation is covered to a contemporary standard, particularly noting Rehabilitation Aspects and Approval Conditions (Schedule 3, Conditions 42-44) for the Preliminary Works Project PA 10_0046 were last updated in October 2011.

It is recommended that DPIE, Resource Assessments requests additional information regarding Rehabilitation be provided as part of, or as an addendum to, the Revised PRP.

Once this is received, the Resources Regulator will be able to conduct an informed assessment of proposed Rehabilitation including recommended Conditions of Approval.

Rehabilitation Security

The Resources Regulator makes note of the following information on page 149 of Revised Preferred Project Report:

"Under the base case scenario in the CBA, WCL will be obligated to rehabilitate the Russell Vale Colliery including the underground access points and the Pit Top facilities which is estimated at \$215 million to be expended in 2020, with no future mining at Russell Vale."

The Resources Regulator is currently seeking an independent review of the existing rehabilitation security held in respect of the Russell Vale mine to determine if the amount held is sufficient.

Mine Safety

Mine Safety Operations within the Resources Regulator is responsible for ensuring mine operators manage the risk to worker health and safety through compliance with the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the subordinate mining legislation. In particular the effective management of risk associated with the principal hazards as specified in the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.

Mine Safety Operations have not identified any risk that would require comment in relation to this matter.

For enquiries regarding this matter please contact me on (02) 4063 6444 or minres.environment@planning.nsw.gov.au

Yours sincerely


for **Greg Kininmonth**
Manager Environmental Operations

On behalf of
Steve Orr
A/Director Compliance
Resources Regulator
NSW Department of Planning, Industry & Environment
5 September 2019

ADVICE RESPONSE

Mining Development Rehabilitation Standard SEARs

Post-mining land use

- (a) Identification and assessment of post-mining land use options;
- (b) Identification and justification of the preferred post-mining land use outcome(s), including a discussion of how the final land use(s) are aligned with relevant local and regional strategic land use objectives;
- (c) Identification of how the rehabilitation of the project will relate to the rehabilitation strategies of neighbouring mines within the region, with a particular emphasis on the coordination of rehabilitation activities along common boundary areas;

Rehabilitation objectives and domains

- (d) Inclusion of a set of project rehabilitation objectives and completion criteria that clearly define the outcomes required to achieve the post-mining land use for each domain. Completion criteria should be specific, measurable, achievable, realistic and time-bound. If necessary, objective criteria may be presented as ranges;

Rehabilitation Methodology

- (e) Details regarding the rehabilitation methods for disturbed areas and expected time frames for each stage of the rehabilitation process;
- (f) Mine layout and scheduling, including maximising opportunities for progressive final rehabilitation. The final rehabilitation schedule should be mapped against key production milestones (i.e. ROM tonnes) of the mine layout sequence before being translated to indicative timeframes throughout the mine life. The mine plan should maximise opportunities for progressive rehabilitation;

Conceptual Final Landform Design

- (g) Inclusion of a drawing at an appropriate scale identifying key attributes of the final landform, including final landform contours and the location of the proposed final land use(s);

Monitoring and Research

- (h) Outlining the monitoring programs that will be implemented to assess how rehabilitation is trending towards the nominated land use objectives and completion criteria;
- (i) Details of the process for triggering intervention and adaptive management measures to address potential adverse results as well as continuously improve rehabilitation practices;
- (j) Outlining any proposed rehabilitation research programs and trials, including their objectives. This should include details of how the outcomes of research are considered as part of the ongoing review and improvement of rehabilitation practices;

Post-closure maintenance

- (k) Description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner;

Barriers or limitations to effective rehabilitation

- (l) Identification and description of those aspects of the site or operations that may present barriers or limitations to effective rehabilitation, including:
 - (i) evaluation of the likely effectiveness of the proposed rehabilitation techniques against the rehabilitation objectives and completion criteria;
 - (ii) an assessment and life of mine management strategy of the potential for geochemical constraints to rehabilitation (e.g. acid rock drainage, spontaneous combustion etc.), particularly associated with the management of overburden/interburden and reject material;
 - (iii) the processes that will be implemented throughout the mine life to identify and appropriately manage geochemical risks that may affect the ability to achieve sustainable rehabilitation outcomes;

Attachment 1 – Resources Regulator Advice to Umwelt (SEARs) – email sent to Umwelt dated 20 June 2019

The Resources Regulator would expect the Environmental Impact Assessment (EIA) currently in Development for the Russell Vale Underground Expansion Project, as revised, to address our current “Secretary’s Environmental Assessment Requirements” (SEARs) which relate to Rehabilitation.

As such, it is requested that you review the SEAR’s below and address these within the EIA.

- (iv) a life of mine tailings management strategy, which details measures to be implemented to avoid the exposure of tailings material that may cause environmental risk, as well as promote geotechnical stability of the rehabilitated landform; and
 - (v) existing and surrounding landforms (showing contours and slopes) and how similar characteristics can be incorporated into the post-mining final landform design. This should include an evaluation of how key geomorphological characteristics evident in stable landforms within the natural landscape can be adapted to the materials and other constraints associated with the site.
- (m) Where a void is proposed to remain as part of the final landform, include:
- (i) a constraints and opportunities analysis of final void options, including backfilling, to justify that the proposed design is the most feasible and environmentally sustainable option to minimise the sterilisation of land post-mining;
 - (ii) a preliminary geotechnical assessment to identify the likely long term stability risks associated with the proposed remaining high wall(s) and low wall(s) along with associated measures that will be required to minimise potential risks to public safety; and
 - (iii) outcomes of the surface and groundwater assessments in relation to the likely final water level in the void. This should include an assessment of the potential for fill and spill along with measures required be implemented to minimise associated impacts to the environment and downstream water users.
- (n) Where the mine includes underground workings:
- (i) determine (with reference to the groundwater assessment) the likelihood and associated impacts of groundwater accumulating and subsequently discharging (e.g. acid or neutral mine drainage) from the underground workings post cessation of mining; and
 - (ii) consideration of the likely controls required to either prevent or mitigate against these risks as part of the closure plan for the site.
- (o) Consideration of the controls likely to be required to either prevent or mitigate against rehabilitation risks as part of the closure plan for the site;
- (p) Where an ecological land use is proposed, demonstrate how the revegetation strategy (e.g. seed mix, habitat features, corridor width etc.) has been developed in consideration of the target vegetation community(s);
- (q) Where the intended land use is agriculture, demonstrate that the landscape, vegetation and soil will be returned to a condition capable of supporting this; and
- (r) Consider any relevant government policies¹.

¹ The following government policies should be considered when addressing rehabilitation issues:

- Mine Rehabilitation (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
- Mine Closure and Completion (Leading Practice Sustainable Development Program for the Mining Industry, 2006)
- Strategic Framework for Mine Closure (ANZMEC-MCA, 2000)

