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02 August 2019

Mr Kerry Mudge  
Senior Manager - Technical Services and Approvals  
Cu-River Mining Australia  
PO Box 263 Rundle Mall  
SA 5000

Dear Mr Mudge,

***Mining Act 1971 – Notification of approved Program for Environment Protection and Rehabilitation (PEPR) for Mineral Lease (ML) 6303 – Cairn Hill Mine***

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The program for ML6303, Version 5.0 as submitted on 10 July 2019 has been approved as PEPR No. MPEPR2019/014 in accordance with Section 70C(5) of the *Mining Act 1971*.

You are reminded that in accordance with Section 70D(3), you must at all times implement and comply with this approved PEPR. Any significant proposed changes to mining operations stated in this PEPR will require a review of the PEPR in accordance with Section 70C of the *Mining Act 1971*.

The approved PEPR contains mine closure and rehabilitation strategies in relation to Potential Acid Forming minerals (PAF) and Acid Metalliferous Drainage (AMD) that require additional information which are set out later in this letter. Hence, DEM requests that PAF material is not placed for permanent disposal until the matters subsequent set out later in this letter are addressed.

The PEPR also includes a native vegetation management plan for the clearance of 125 ha of vegetation on ML 6303. The Significant Environmental Benefit (SEB) for the removal of this vegetation has been calculated as \$351,254.49 by the Department for Energy and Mining in accordance with the delegation from the Native Vegetation Council.

As your preferred option is to pay into the Native Vegetation Fund, evidence for a payment for \$351,254.49 must be provided to the Department for Energy and Mining made out to the "Native Vegetation Council". You can then undertake the vegetation clearance as outlined in this approved PEPR.

This approval does not constitute endorsement of the systems that you have in place to manage the mining operations in compliance with the *Mining Act 1971*. Whilst the PEPR you have provided and your capability to undertake this activity have been

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considered in making the approval under Section 70C of the *Mining Act 1971*, the responsibility for compliance with the *Mining Act 1971*, *Mining Regulations 2011* and lease conditions, remains at all times with the tenement holder.

### **Public Liability Insurance**

In accordance with Regulation 90(2) of the *Mining Regulations 2011*, I request a copy of the certificate of insurance be provided to DEM.

### **Rehabilitation Financial Assurance**

DEM is still assessing the Rehabilitation Liability Estimate for the site and once DEM has completed this assessment we will write to you to request a bond under separate cover.

### **Other Legislation**

The *Mines and Works Inspection Regulations 2013* (the Regulations) require that mining operations must not interfere with a water course. Under Regulation 18 of the Regulations you are exempted from Regulation 12(4) and 14 of the Regulations. The Chief Inspector of Mines is satisfied that compliance with Regulations 12(4) and 14 is impractical in this case.

SafeWork SA, in accordance with Chapter 10 of the *Work Health and Safety Regulations 2012* (SA) has introduced requirements for mine operators in South Australia which include a notification for mining operations and the establishment of a Safety Management System and the identification of Principal Mining Hazards and development of a Principal Mining Hazard management Plan. Further information on your responsibilities, including a guide to Chapter 10, and the Mine Operator Notification Form, is available on SafeWork SA's website [www.safework.sa.gov.au](http://www.safework.sa.gov.au).

You are reminded that construction works for the creek diversions proposed in the PEPR cannot commence until all necessary legislative requirements are met, including:

- Obtaining any Water Affecting Activity permits required under the *Natural Resource Management Act 2004* (and associated Regional NRM Plan); and
- Any requirements under the *Aboriginal Heritage Act 1988*.

### **Annual Compliance Reporting**

In accordance with Mining Regulation 86 and Ministerial Determination 009, you are required to provide the Department for Energy and Mining with an annual Compliance Report. The annual Report must be submitted within 2 calendar months of the recurring date of lease grant. If the proposed submission date is not suitable, please contact Peter Lane so that a mutually agreed date can be determined.

Should you require any further assistance in regards to operational or compliance matters, please contact Peter Lane, Mining Compliance Officer on 8429 0273/ 0477 307 661 or email: [peter.lane@sa.gov.au](mailto:peter.lane@sa.gov.au).

## **Matters Subsequent to Approval of the PEPR**

In accordance with section 70C of the *Mining Act 1971*, I require Cu-River to submit a reviewed PEPR within 3 months of the date of this letter to address the following matters identified below. One full hard copy and an electronic copy of the PEPR resubmission is required. You are reminded that in accordance with section 70D(2) of the Act, failure to comply with this request to review the PEPR may result in a maximum penalty of \$120,000.

### Mine Closure and Rehabilitation

Provide updated information in the PEPR on mine closure and rehabilitation. The information must be prepared by suitably qualified experts, and must address (but not be limited to) the following matters:

- Provide a sequence of progressive and final rehabilitation in both text and map form in accordance with Section 3.4.9 of Ministerial Determination MD005 (MD005). Include demonstration that progressive rehabilitation has been integrated with the mining plan
- Provide detail of all activities, strategies and designs relating to mine closure, including timing of these activities and all opportunities for progressive rehabilitation for each closure domain. This must as a minimum cover the information required by Sections 3.4.9.1, 3.5.9, 3.6.5 and 3.7.9 of MD005
- Provide a description of the mine site at completion, that addresses as a minimum the requirements set out in Section 3.9.1 of MD005, including the provision of representative rehabilitation and closure scaled drawings in plan view and cross-sections
- Set out the control and management strategies adopted to demonstrate that the mine completion outcomes can be and will continue to be achieved as required by Section 5.2.1 of MD005
- Provide mine completion criteria that clearly demonstrate achievement of each mine completion outcome. The mine completion criteria must comply with Mining Regulation 65(2)(d) and Section 5.3 of MD005
- Provide an uncertainty assessment pertaining to the likely effectiveness of control and management strategies. The uncertainty assessment must comply with the requirements set out in Section 5.2.2 of MD005
- Provide a summary of the results of consultation that has been undertaken in the development of the information included in the PEPR relating to mine closure. This information must be in compliance with Section 4 of MD005.

The PEPR review must include a review of the rehabilitation liability estimate based on the updated mine closure and rehabilitation information.

### Acid Rock Management Plan

Provide an updated Acid Rock Management Plan (ARMP). The ARMP must be prepared by suitably qualified experts, and must address (but not be limited to) the following matters:

- The methods for the identification, placement and encapsulation of PAF material must be developed in accordance with the following guidelines:
  - Mine Environment Neutral Drainage (MEND) program guidelines; and
  - The International Network for Acid Prevention (INAP) Global Acid Rock Drainage (GARD)
- The recommendations from the COEE report *Assessment of sulphide oxidation at the Cairn Hill Mine* (2011)
- A geochemical assessment of the waste rock based on the geochemical properties determined from an analysis of representative sampling of all waste rock types to be disposed
- A description of the placement and encapsulation of waste material deemed to be hazardous, including potentially acid forming material (PAF) for all disposal locations (waste rock dumps and in-pit)
- An assessment of seepage of liquids through the waste disposal facilities containing PAF, and strategies for the containment of any seepage that has the potential to impact the environment (waste rock dumps and in-pit)
- An assessment of the post completion chemical stability of PAF disposal facilities following rehabilitation
- An assessment of the source, pathway and ultimate fate of any potential mobile contaminants from PAF disposal facilities
- A description of site management systems designed to ensure the separate extraction of NAF and PAF from the mine and placement within waste disposal facilities must be verified by a suitably qualified expert on an ongoing basis.

#### Post-mine completion hydrogeology

- Provide a description of the post-mine completion hydrogeology in relation to whether any remaining open pits will create permanent hydrogeological sinks or a flow through system
- Provide an assessment of the impact of a hydrogeological sink or a flow through system on any potential Acid and Metalliferous Drainage (AMD) that may form post-mine completion.


The reviewed PEPR must also address the relevant subsequent matters set out in the DEM approval letter of the previous approved PEPR MPEPR 2017/006 (DEM letter 6 October 2017), in particular the relevant matters relating to mine closure and rehabilitation.

Information contained in the main volume of the reviewed PEPR must be consistent with the information provided in all attached Plans, inclusive of the ARMP.

DEM recommends that suitably qualified closure and AMD experts are engaged in order to address the above matters.

Should you require any further assistance in regards to the requirement for a PEPR review, please contact Nathan Zeman, Principal Mining Assessment Officer on 8429 2494 or email: [nathan.zeman@sa.gov.au](mailto:nathan.zeman@sa.gov.au).

Yours sincerely



**Greg Marshall**  
**Director Mining Regulation**  
**Delegate of the Director of Mines**

CC: Safework SA, EPA, DEW SAAL NRM