



Our reference: DOC21/28035
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Department of Planning, Industry and Environment
Returned via the Major Projects Portal

Attention: Mr Jack Turner

20 January 2021

Dear Mr Turner

**Planning Referral – Hera Resources Pty Limited (Hera Mine Modification 6)
Development Application No. MP10_0191-Mod-6**

Thank you for the invitation from the Department of Planning, Industry and Environment (DPIE) sent to the Environment Protection Authority (EPA) on 25 November 2020 seeking comment on Hera Resources Pty Limited's (Proponent) Modification Report for the Hera Mine Modification 6 Proposal (MP10_0191-Mod-6). DPIE granted the EPA an extension until 22 January 2021 to allow for a proper and full assessment to be carried out.

The EPA has reviewed the Modification Report titled "Modification Report for the Hera Mine Modification 6 MP10_0191-Mod-6" prepared by R.W. Corkery & Co. Pty. Limited on behalf of the Proponent dated November 2020 and accompanying attachments and understands that the Proposal relates to the following:

1. The transportation of up to 100,000tpa of ore from the Hera Mine located at "The Peak", 353 Burthong Road, Nymagee, NSW approximately 94km by road to the Peak Gold Mine located at Hillston Road, Cobar, NSW, with backloading of a similar amount of waste rock from the Peak Gold Mine to the Hera Mine;
2. Disposal of tailings underground for backfilling operations at the Hera Mine through the installation of a paste-fill plant and/or transportation of dewatered tailings underground using haul trucks;
3. Establishment and use of a surface extraction area to extract non-mineralised, non-acid forming material for use backfilling completed stopes, as well as for maintenance of surface infrastructure and for rehabilitation operations;
4. Amendment of the current tailings discharge point weak acid dissociable cyanide limit from 10mg/L to a new limit of 20 mg/L (90th percentile) and 30 mg/L (maximum), consistent with the discharge limits for the process water dam;
5. Importation and batch processing of an exploration bulk sample of up to 20,000t from the Federation Deposit located approximately 10km south of Hera Mine, pending approval for the exploration activity; and
6. Importation of waste rock generated during construction of the Federation Deposit exploration decline that would not be required for rehabilitating that site.

The Hera Mine is subject to Environment Protection Licence 20179 (Licence) issued by the EPA under the *Protection of the Environment Operations Act 1997* (POEO Act) for the scheduled activities of mining for minerals, mineral processing and Crushing, Grinding and Separating.

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The EPA has reviewed the Modification Report and accompanying attachments and requests further information from the Proponent before providing DPIE with its final advice. This information is in relation to the proposed weak acid dissociable cyanide discharge limit increase and waste classification.

WAD cyanide discharge limit increase

The EPA requests that the Proponent engage a suitably qualified and experienced ecotoxicological expert to provide advice as to whether the proposed increase in the weak acid dissociable cyanide limit from 10mg/L to a new limit of 20mg/L (90th percentile) and 30mg/L (maximum) for the discharge to the tailings storage facility to would result any chemical impacts on birds and/or fauna that may access the Hera Mine.

The *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG 2018) aquatic ecosystem protection Default Guideline Value (DGV) is 0.007mg/L and is derived from toxicity information for aquatic species (not land-based birds and fauna). The ANZG 2018 DGV would be used as a basis for considering risks to off-site surface water aquatic ecosystems (e.g. freeboard sizing) and groundwaters (e.g. liner permeability). The options to prevent access to and minimise the attractiveness of the supernatant water to birds and/or fauna is limited to “*minimising the area of open water on the Tailings Storage Facility and Water Management Dam.*”

The Proponent should also seek relevant expert advice on further controls that would limit access and deter birds and/or fauna from accessing the facility such as use of current best practice methods for avifauna deterrence.

While the EPA understands that the issue of bird and fauna protection does not generally fall within the EPA’s remit, the EPA does have a requirement to ensure activities are undertaken competently.

Waste Classification

The EPA requests that the Proponent provide further information regarding the waste classification and management of the 425,000 tonnes of waste rock material proposed to be imported to the Hera Mine.

Section 2.8.3 of the Modification Report titled Importation of Waste Rock states that the waste rock material complies with the classification of Virgin Excavated Natural Material (VENM) as per the Excavated Natural Material Order 2014 and the *Protection of the Environment Operations (Waste) Regulation 2014*. The Modification Report also states that the 425,000 tonnes of waste rock material proposed to be imported may be potentially acid forming and appear to rely on the definition of ore (defined as profitable amounts) to state that it complies with the VENM definition. This statement overlooks that the definition in the POEO Act for VENM specifically states the following:

virgin excavated natural material means natural material (such as clay, gravel, sand, soil or rock fines)—

(a) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities, and

(b) that does not contain any sulfidic ores or soils or any other waste, and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA Gazettal notice.

Therefore, as the waste rock material has the potential to be acid forming, it cannot be classified as VENM.

The EPA requests that the Proponent, in light of this advice, review and revise its waste classification of the 425,000 tonnes of waste rock material proposed to be imported to the Hera Mine in accordance with the EPA’s Waste Classification Guidelines. The Proponent must then determine what assessment and approval pathways would be required to potentially permit the

importation and reuse or disposal of the waste rock material. The EPA can provide further assistance in respect of this process if required.

If you have any questions about this matter, please contact Brooke Emerton on 6883 5368 or by email at central.west@epa.nsw.gov.au.

Yours sincerely

MATTHEW CORRADIN
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