

Environmental Protection Act 1994

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

Aurora Metals Limited (ACN:126 634 606)
395 Lake Street
CAIRNS NORTH QLD 4870

Your reference: EPML00974913

Our reference: C-CPLRC-100065383; C-CPLRC-100355858; 101/0008678; E-100378768

21/03/2023

Dear Mr Ralph De Lacey

Take notice: that under the *Environmental Protection Act 1994* (EP Act) this environmental protection order (EPO) is issued to Aurora Metals Limited (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The EPO is issued with respect to the activities of Aurora Metals Limited at the Mt Garnet Mine and Surveyor-Balcooma Mine on land described as Mining Lease (ML) 100001, ML1393, ML20016, ML30156, ML4042, ML4043, ML4044 and ML4130 (the site).

A. Grounds

This EPO is issued on the following grounds:

1. Pursuant to section 358(d)(iii) of the EP Act, to secure compliance with conditions of environmental authority EPML00974913 (the EA), including:
 - (a) Condition C1, which states: *'The release of contaminants to waters must only occur from the release points specified in Table C1 (Contaminant Release Points) and depicted in Map 1 and Map 2 attached to the environmental authority.'*
 - (b) Condition C34, which states: *'A Water Management Plan must be developed and implemented by 1st November 2011 that provides for the proper and effective management of the actual and potential environmental impacts resulting from the mining activity and to ensure compliance with the conditions of this environmental authority.'*
 - (c) Condition F35, which states: *'By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).'*

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(d) Section 297 of the EP Act, which states: *'It is a condition of an environmental authority for a resource activity that the holder must not carry out, or allow the carrying out of, a resource activity under the authority unless-*

(c) the holder has complied with the requirements under the Mineral and Energy Resources (Financial Provisioning) Act 2018 (MERFP Act) for paying a contribution to the scheme fund, or giving a surety for the authority, as required from time to time.'

1. Pursuant to section 358(d)(i) of the EP Act, to secure compliance with the general environmental duty under section 319 of the EP Act, which states that:

*'A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practical measures to prevent or minimise the harm (the **general environmental duty**)'.*

The facts and circumstances forming the basis for these grounds are:

1. Aurora Metals Limited (AML) is the holder of the EA, as issued on 12 April 2017, which authorises mining activities and a number of ancillary activities (including mineral processing) to be undertaken at the site.
2. Site infrastructure associated with the mining activity includes a number of regulated structures (the 'Tailings Storage Facility' ['TSF'] and the 'Sediment Dam'), waste rock dumps and an open-cut pit (the 'Mt Garnet Pit').
3. All infrastructure detailed above contains contaminants with the potential to cause environmental harm if released to the receiving environment in an uncontrolled manner.

Failure to meet DSA

1. The department has formed a reasonable belief that you failed to achieve the required Design Storage Allowance (the 'DSA') for regulated structures at the site (specifically the TSF and Sediment Dam) as required on 1 November each year in 2019, 2020, 2021 and 2022, which constitute breaches of EA condition F35.
2. You previously advised the department that DSA would be achieved ahead of the 2022-23 wet season through the construction of a new dam referred to as 'TSF2', by no later than October 2022.
3. As of the date of this EPO being issued, you are yet to complete construction of TSF2.
4. Failure to achieve the required DSA poses a heightened and unacceptable risk of an unauthorised contaminant release and has contributed to the compliance matters detailed below under points 9 to 14.
5. The department considers that you have not taken all reasonable and practicable measures to reduce the risk of an unauthorised release of contaminants from the site and have therefore failed to meet your general environmental duty under the EP Act.

Mt Garnet Pit

6. Schedule F – Table 3 in the EA details regulated structures at the site that are authorised under the EA. The Mt Garnet Pit is not detailed as an authorised regulated structure.
7. Despite not being authorised as a regulated structure under the EA, the Mt Garnet Pit was assessed by ATC Williams as a 'significant' consequence category structure, due to stored contaminants and potential impacts from a release.

8. The *Mt Garnet Site Water Management Plan November 2022* (the 'WMP') states that a geologically weathered zone of rock is intersected within the Mt Garnet Pit at approximately RL615.56 AHD, and that water in the pit must be maintained below 528m Local Grid (RL615.56 AHD). The *Mt Garnet Site Water Management Outlook 2022/23*, completed by ATC Williams in October 2022, states that the highly fractured rock is exposed at RL614.5 AHD, which is broadly consistent with the WMP.
9. On 27 January 2023, you advised that water had been transferred to the Mt Garnet Pit from the TSF and Sediment Dam over the course of the 2022-23 wet season in order to prevent an unauthorised release from the site to receiving waters.
10. Waters contained within the TSF and Sediment Dam are known to be contaminated and unsuitable for release to receiving waters.
11. On 20 March 2023, you provided water quality data confirming elevated contaminant concentrations in waters contained within the Mt Garnet Pit, including cadmium, copper, sulfate and zinc.
12. Based on the facts and circumstances detailed above, the department has formed a view that:
 - a) You are not authorised to utilise the Mt Garnet Pit to store contaminated water.
 - b) Water currently stored within the Mt Garnet Pit is contaminated and has the potential to adversely impact receiving waters.
 - c) Due to the current elevated water levels within the Mt Garnet Pit, there is an unacceptable risk of groundwater contamination, due to seepage (from the Pit).
13. The EA does not authorise any release of contaminants to groundwater. As such, a release of contaminants from the Mt Garnet Pit to groundwater would constitute a breach of EA condition C1.
14. There were reasonable and practicable measures available to you prior to the 2022-23 wet season to avoid the need to transfer contaminated waters to the Mt Garnet Pit, such as compliance with requirements to achieve the Design Storage Allowance within the TSF and Sediment Dam.
15. You are required to take action to prevent environmental harm arising from the unauthorised use of the Mt Garnet Pit as a contaminated water storage.

Failure to provide surety

16. In accordance with the EA condition specified under section 297 of the EP Act, you are required to make any financial provisioning determined by the Scheme Manager under the MERFP Act.
17. On 21 December 2022, the Scheme Manager advised the department that you have failed to meet the required financial provisioning requirements.
18. Therefore, you are alleged to be in breach of the EA condition under section 297 of the EP Act.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. You must not conduct any **mineral processing** at the **site** until such time as:
 - a) **TSF2** has been constructed in accordance with requirement 2 of this EPO; and
 - b) All **financial provisioning** requirements have been met.
2. By 1 June 2023, you must complete construction of **TSF2** in accordance with the **design plan** and all applicable **EA** conditions.
3. By 22 June 2023, you must provide a report to the administering authority which has been certified by a **suitably qualified and experienced person** and states whether **TSF2**:
 - (a) has been completed in accordance with the **design plan** and all **EA** conditions; and

- (b) is suitable for the intended purpose of mine waste disposal with reference to the **ANCOLD Guidelines**.
- 4. By 22 June 2023, you must provide the administering authority a copy of a **certified system design plan** for the **site** which:
 - (a) details how TSF2 will be managed as part of an **integrated containment system** for the purpose of sharing the **DSA** volume across the system, excluding use of the **Mt Garnet Pit**; and
 - (b) complies with all requirements of the *Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/193314)*.
- 5. By 14 April 2023, you must provide a report to the administering authority that has been completed by a **suitably qualified and experienced person** and details a plan including timeframes for achieving compliance with EPO requirements 6 and 7.
- 6. From receipt of this EPO, you must:
 - a) take all actions necessary to prevent the migration of seepage from the **Mt Garnet Pit**; and
 - b) conduct groundwater and surface water monitoring sufficient to detect potential impacts of seepage from the **Mt Garnet Pit** to the receiving environment.
- 7. By 30 June 2023, you must reduce the level of waters stored within the **Mt Garnet Pit** to below **RL 614.5m AHD** through lawful means.
- 8. At all times you must:
 - (a) ensure appropriately qualified and experienced personnel are at the site sufficient to ensure compliance with this EPO and conditions of the **EA**;
 - (b) secure and maintain all infrastructure necessary to ensure compliance with the requirements of the EPO and conditions of the **EA**;
 - (c) maintain fuel supplies and access to power to ensure the ongoing operation of required measures, plant and equipment to ensure compliance with this EPO and conditions of the **EA**.
- 9. The following definitions apply to the requirements of this EPO:
 - a) '**ANCOLD Guidelines**' means the guidelines provided by Australian National Committee on Large Dams (ANCOLD), specifically *Guidelines on Tailings Dams – Planning, Design, Construction, Operation, and Closure – Revision 1*, dated July 2019.
 - b) '**certified system design plan**' means a plan that manages an **integrated containment system**, as certified by a **suitably qualified and experienced person**.
 - c) '**design plan**' means the construction plans detailed in the document titled "*Mount Garnet Mining Project TSF2 Detailed Design*" dated July 2022.
 - d) '**DSA**' (design storage allowance) means an available volume, estimated in accordance with the *Manual for assessing consequence categories and hydraulic performance of structures (ESR/2016/193313)* published by the administering authority, which must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that Manual.
 - e) '**EA**' means environmental authority EPML00974913, effective 12 April 2017.
 - f) '**financial provisioning**' means giving a surety or making a contribution to the scheme fund, as required by the scheme manager pursuant to the *Mineral and Energy Resources (Financial Provisioning) Act 2018*.
 - g) '**integrated containment system**' means a system of interconnected regulated dams with a shared **DSA**.
 - h) '**mineral processing**' means the process of separating commercially valuable minerals from their ores and any associated mine waste disposal.
 - i) '**Mt Garnet mine**' means Mining Lease (ML)4042, ML4043, ML4044, ML4130, ML20016, ML100001.
 - j) '**Mt Garnet Pit**' means the open cut pit located immediately north of Tailings Storage Facility 1, located on Mining Lease 20016.
 - k) '**m AHD**' means metres above Australian mean sea level
 - l) '**RL**' means reduced level.

- m) 'site' means land described as 'Mt Garnet mine' and 'Surveyor/Balcooma mine' located on Mining Lease (ML)4042, ML4043, ML4044, ML4130, ML20016, ML100001, ML1393, ML30156.
- n) 'suitably qualified and experienced person' means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and who is a civil engineer with the required qualifications in dam safety and dam design.
- o) 'TSF2' means 'Tailings Storage Facility 2' on Lot 72 Plan SP149859 and Lot 219 Plan SP219914.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the EP Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

Failure to comply with an EPO is an offence.

- The maximum penalty for wilfully contravening an EPO is 6,250 penalty units, totalling \$4,492,187.50 for a corporation.
- The maximum penalty for contravening an EPO is 4,500 penalty units, totalling \$3,234,375 for a corporation.

Failure to provide written notice to the buyer of the existence of the order is an offence.

- The maximum penalty is 50 penalty units, totalling \$35,937.50 for a corporation.

Failure to provide written notice to the department within 10 business days of ceasing the activity to which an environmental protection order relates is an offence.

- The maximum penalty is 50 penalty units, totalling \$35,937.50 for a corporation.

Section 3 of the *Penalties and Sentences Regulation 2015* prescribes the monetary value of a penalty unit.

E. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the EP Act.

A person who is dissatisfied with an original decision made by the department may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the [Internal Reviews and Appeals Information Sheet](#) (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term).

A request for review or appeal is to be made using the approved form '[Application for review of original decision](#)' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term).

Notice Environmental Protection Order

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment and Science: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

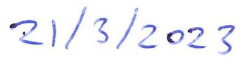
You may have other legal rights or obligations and should seek your own legal advice.

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact Richard McLay at richard.mclay@des.qld.gov.au.



Signature



Date

Jacob Toe

**Delegate of the Chief Executive
Department of Environment and Science
Environmental Protection Act 1994**

Enquiries:

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