



Environmental Protection Operations Directorate
Prairie & Northern Region
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Yellowknife, NT X1A 2P7

ECCC File: 6100 000 008/012
NWB File: 2AM-MEA1525

September 24, 2018

Via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Mr. Dwyer:

RE: 2AM-MEA1525 – Agnico Eagle Mines Ltd. – Meadowbank Mine – Interim Closure and Reclamation Plan

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Interim Closure and Reclamation Plan (ICRP) and is submitting comments via email. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

The following comments are provided:

Air Quality and Dustfall Monitoring Plan

Reference(s):

Section 3.1.3.1, Table 5-5, Table 5-6, Table 5-8, Table 5-11

1. ECCC notes that Agnico Eagle Mines Ltd. (the Proponent) plans to monitor air quality and dustfall during active remediation to ensure erosion and dust does not become an issue, but the Proponent has not provided any details on this monitoring and whether it will inform adaptive management. It is not clear when monitoring will stop and if the duration of the monitoring will be enough to capture all dust emissions from erosion once reclamation is complete.

ECCC Recommendation

ECCC recommends that the Proponent provide additional details surrounding air quality and dustfall monitoring, and whether it will inform adaptive management. The Proponent should also clarify how the duration of monitoring will be determined and whether or not this duration will be sufficient to capture all dust emissions when reclamation is complete.

Water Quality Closure Criteria

Reference(s):

Table 5-5, Section 5.2.4.4

2. Table 5-5 indicates the following closure objectives: “meet water quality objectives for any discharge from pits” and “water quality in flooded pits is safe for humans, aquatic life, and wildlife.” The corresponding closure criteria is, “prior to dike reconnection, the water quality will meet the Water Licence Requirements.” The existing licence contains no water quality requirements for closure and there is no timeline provided in the plan for development of water quality closure criteria. Given that open pit flooding has already commenced, consideration should be made for the development of closure water quality objectives for the flooded open pits. The Proponent has committed to ensuring pit water quality either meets background, meets the Canadian Council of Ministers of the Environment guidelines for the protection of aquatic life, or meets appropriate site-specific objectives prior to reconnecting the pits to surface waters, but has not further narrowed down closure water quality criteria for the pits. These criteria would be useful for comparison through the process toward closure to assess whether treatment of water within the flooded pits will be required.

ECCC Recommendation

ECCC recommends that the Proponent develop a timeline for the development of water quality closure criteria for the flooded open pits.

Management of Flooded Goose Pit

Reference(s):

Section 5.2.4.4

3. The ICRP indicates that Goose Pit flooding is anticipated to be completed in summer 2019, however, the dikes are not anticipated to be breached until 2029 at the earliest. There is no indication of how water in Goose Pit will be managed during the period between when flooding is complete and prior to dike breach. Given that there is 10 years between these two events, water may accumulate in

the Goose Pit that will need to be managed in such a way to avoid overtopping and discharge into the receiving environment.

ECCC Recommendation

ECCC recommends that the Proponent provide a discussion of how Goose pit water will be managed in the years between when the pit flooding is completed and prior to dike breach.

Contaminants of Concern in Flooded Pits

Reference(s):

Section 5.2.4.4

4. Several parameters are predicted to be elevated in the water quality forecast for Goose and Portage Pits at closure, including: aluminum, arsenic, cadmium, chromium, copper, iron, nickel, selenium, and fluoride. The ICRP indicates that treatment options for their removal will need to be examined in greater detail during the preparation of the final closure and reclamation plan. While the Proponent indicates that these contaminants are originating from the Tailings Storage Facility (TSF), there is no reclaim water from the TSF to be deposited in Goose Pit, therefore the contaminant sources for Goose Pit are unclear. Given that data is available for the Goose Pit flooded water quality, a comparison to predicted water quality should be provided.

ECCC Recommendation

ECCC recommends the Proponent provide a comparison of measured water quality in Goose pit to predictions, to assess potential need for treatment in the partially flooded pit.

Should you require further information, please do not hesitate to contact me at (867) 669-4733 or Melissa.Pinto@canada.ca.

Sincerely,

[original signed by]

Melissa Pinto
Senior Environmental Assessment Coordinator

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)