

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 012/023
NWB File: 2AM-MEL1631



July 17, 2020

via email at: licensing@nwb-oen.ca

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

Dear Richard Dwyer:

RE: 2AM-MEL1631 – Agnico Eagle Mines Limited – Meliadine Mine – Water Quality and Management Optimization Plan Round 2 Information Request Responses.

Environment and Climate Change Canada (ECCC) has reviewed Agnico Eagle Mines Limited's (the Proponent) responses to our July 7, 2020 comments submitted to the Nunavut Water Board (NWB) regarding the above-mentioned plan for the 2AM-MEL1631 Type A Water Licence. We wish to provide further clarification to the NWB regarding ECCC's IR 4.

ECCC's specialist advice is based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

1. ECCC IR 4 - Adaptive Management

Reference(s)

- Water Quality Management Optimization Plan (WQMOP), Golder Associates Ltd., March 2020. Section 3.5 Adaptive Management

ECCC's Clarification

The Proponent's responses to ECCC's comments do not quite address the issue of adaptive management in the face of consecutively high total dissolved solids (TDS) exceedances.

ECCC noted that:

The proponent's response goes on to state that triggers that would results in changes to discharge rates would include greater than two consecutive exceedances of the triggers in the effluent or the edge of the mixing zone, i.e. 3 or more exceedances. The proposed



threshold could effectively result in six weeks of exceedances in effluent released into Meliadine Lake. If edge of mixing zone total dissolved solids (TDS) concentrations are at or greater than the 1000 mg/L threshold by or before the second exceedance, this should be included as a “hard” trigger for action, without waiting for a third exceedance (unless it is in a confirmatory sample taken right away).

Agnico Eagle replied that:

Agnico Eagle does not agree with ECCC that the TDS threshold for the edge of the mixing zone would result in a potential delay of up to six weeks for implementation of a management response to address the trigger. Preliminary laboratory results are typically sent to Agnico Eagle within one week of sample submission for total dissolved solids, which would mean Agnico Eagle would be aware if the TDS threshold based on laboratory confirmation was reached within two week.

ECCC's comment is less related to the timing of obtaining lab results, and rather is meant to address the issue of a delayed response to TDS management (i.e., only after two consecutive exceedances of the threshold are observed). In its current form, the MQMOP establishes that the third exceedance would trigger a response. Based on a sampling schedule of every two weeks, a response to high TDS would occur four weeks after the first exceedance, with results available in two weeks, for a total of six weeks of discharge above trigger levels. For this reason, ECCC suggested explicitly including a trigger for action when the 1000 mg/L threshold is surpassed.

If you need more information, please contact Eva Walker at (867) 669-4744 or Eva.Walker@Canada.ca.

Sincerely,

[Original signed by]

Eva Walker
Acting Senior Environmental Assessment Officer
Environmental Protection Directorate Environmental Assessment - North

Jody Small, Acting Head, Environmental Assessment North (NT and NU)