

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 9, 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 – Design Report for Saline Effluent Treatment Plant (SETP) Upgrade

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned design report for 2AM-MEL1631 Type A Water Licence by Agnico Eagle Mines Ltd. (The proponent).

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*.

ECCC has the following comments:

1. Ammonia and TDS Targets

Reference(s)

- Section 2.1 Design Rationale, Requirements, Criteria and Parameters

Comment

The proponent has not specified the parameter treatment targets for Total Dissolved Solids (TDS) and ammonia. The proponent just states that the targets will be set to be non-acutely toxic for the three-spined stickleback. ECCC notes that the marine invertebrate test using *Acartia tonsa* will also be a requirement effective June 2021, and that the proponent should plan to use it as a target.



It does not appear that the Saline Effluent Treatment Plant (SETP) will reduce TDS levels. The proponent should identify what treatment will be used to consistently reduce TDS concentrations prior to discharge to Melvin Bay.

ECCC Recommendation(s)

ECCC recommends that:

- the treatment target for non-acutely lethality include passing the marine invertebrate test using *Acartia tonsa*.
- ECCC recommends that the proponent specify the targets for TDS and ammonia as a numerical range or maximum.
- ECCC recommends that the proponent provide information on how they will achieve TDS reductions in the effluent.

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

Sincerely,

[*Original signed by*]

Eva Walker
A/Senior Environmental Assessment Officer
Environmental Protections and Operations Division North (NT and NU)

John Olyslager, Acting Head, Environmental Assessment North (NT and NU)