AGNICO EAGLE

September 26th, 2018

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

Re: Agnico Eagle Mines – Meliadine Division Response to the Saline Water Treatment Plant Recommendations from ECCC

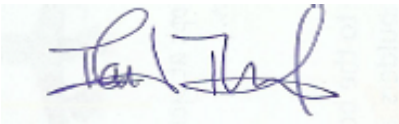
Dear Mr. Dwyer,

As requested, the following information and comments are intended to address the comments outlined in the report below:

- Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Technical Review Comments on the Design Report for the Saline Water Treatment Plant at Meliadine – Agnico Eagle Mines Limited.

Should you have any questions or require further information, please do not hesitate to contact me.

Regards,



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Environmental Compliance Counselor

Comment: Scheduled monitoring and maintenance should be discussed in relation to preventing/minimizing environmental releases. This was not presented in the Saline Water Treatment Plant (SWTP) Design Report.
Recommendation: ECCC recommends that Agnico Eagle Mines Ltd. (the Proponent) describe how treatment processes and associated storage/containment facilities (CP1, salt slurry/ solid salt, blowdown solution, reagents) will be monitored and maintained to minimize the risk of releases to the environment.

AEM Response:

Maintenance and monitoring programs will be developed for the saline water treatment processes and associated storage and containment facilities in order to prevent and minimize the risks of releasing non-compliant levels of constituents to the environment.

As such, the following elements will be part of the maintenance and monitoring programs:

- A detailed maintenance program will be developed and implemented for the SWTP prior to start-up.
- Water quality will be monitored at the feed and discharge of the Saline Water Treatment Plant (SWTP) for various constituents listed in the Design Report[1].
- As indicated in the Design Report[2], a conductivity meter will monitor on a continuous basis the quality of permeate produced by the SWTP's post treatment (reverse osmosis) which will be discharged to CP1.
- Water quality is monitored at discharge of the Effluent Water Treatment Plant (EWTP) for TSS and for conductivity which can be converted to TDS.
- At the SWTP, quantities of slurry and solid salt will be monitored by load cells that will measure the mass weight of salt produced by the salt maker system, followed by a dry rack to dry the salt before loading the salt into the dedicated bags.
- The SWTP will be housed in a building with cement flooring which will facilitate the clean-up of any leaks and spills that could occur during the handling of the blowdown solution and other products.
- As presented on the drawings presented with the Design Report[3], tanks and pumps for reagents such as sulfamic acid, sodium hydroxide and antiscalent will be within a dedicated secondary containment area inside the SWTP's building.
- Treatment process critical parts have been identified and will be kept in inventory, including sufficient recipients and seacans to store blowdown solution and solid salt until the summer season, once it is feasible to ship south on a barge.
- By-products and reagents will be safely stored in seacans.
- Storage area for the by-products and reagents seacans will be near the SWTP to avoid handling bags and totes over a long distance. When seacans of solid salt and blowdown solution have reached full capacity, they will be placed on a laydown area within the industrial site's footprint until the next barge season.
- Regular inspections of storage seacans will be conducted and any leaks or spills will be cleaned up immediately.
- Inventory of by-products and reagents will be recorded regularly in a register in order to have a continuous overview of the quantities stored and shipped.

[1] Refer to Table 2 in the Saline Water Treatment Plant Design Report, 6515-E-132-013-105-REP-035
[2] Refer to Section 3.4.2 in the Saline Water Treatment Plant Design Report, 6515-E-132-013-105-REP-035
[3] Refer to Appendix A in the Saline Water Treatment Plant Design Report, 6515-E-132-013-105-REP-035

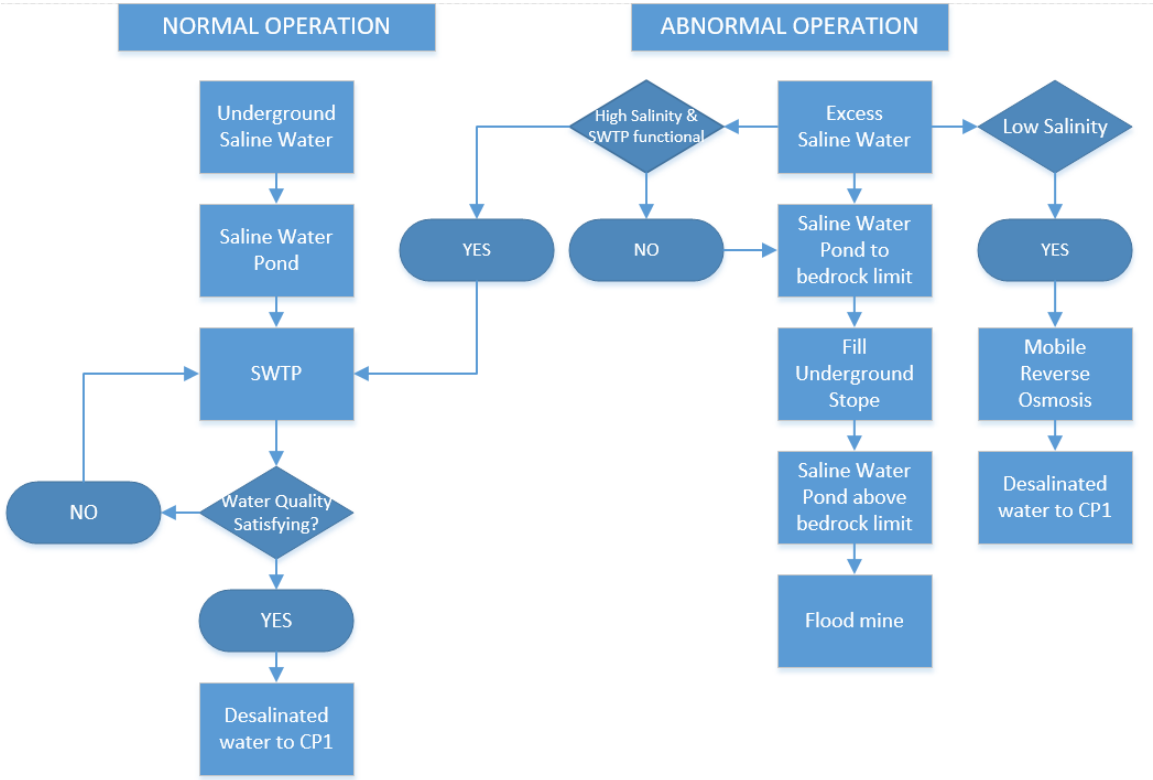
Comment: As described in the SWTP Design Report, the storage capacity is managed to keep the saline pond and stope volumes as low as possible, in order to have enough space for abnormal flow condition or SWTP shutdown. Any other potential issues and contingency measures should also be described.
Recommendation: ECCC recommends that the Proponent describe potential issues that could arise (e.g., off-spec effluent, spills/releases), and the contingency measures that would be used to manage such scenarios.

AEM Response:

Potential issues could arise during the operation of the SWTP and mitigation measures have been implemented to prevent and minimize the risks of releasing non-compliant levels of constituents to the environment. Below is a summary of the two most significant potential issues with their respective contingency plans.

- Underground saline water inflows in the mine:

In case of significantly higher underground saline water inflows in the mine, or of a major malfunction of the SWTP, the following contingency plan for storage has been developed. On the left is presented operations under normal conditions, and on the right are operations under abnormal conditions:



- Levels of constituents in CP1:

In the event that levels of constituents such as TDS are too high for discharge to the environment, the effluent will be ceased immediately. Different mitigation measures will be implemented separately or combined, depending on the criticality of the situation:

  - Lower concentrations of constituents in the effluent generated by the SWTP.
  - Treat water in CP1 (or waters added to CP1) with a reverse osmosis process.
  - Depending if the water levels in CP1 are at a safe elevation with respect to the dike's operation criteria, optimize the pond's storage capacity to collect precipitation and spring melt.