



August 30, 2022

Jonathan Mesher
Water Resource Officer, Nunavut Region
Crown Indigenous Relations and Northern Affairs Canada – CIRNAC
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Sent via Email: Jonathan.mesher@canada.ca

Re: Agnico Response to CIRNAC Inspection Report June 20, 2022

Dear Mr. Mesher,

Agnico Eagle Mines (**Agnico**) is providing this letter in response to actions items identified in the Inspection Report provided by Crown Indigenous Relations and Northern Affairs Canada under the Type A Water License (2AM-DOH1335). Please note the inspection report mentioned the license 2AM-DOH-1323, this water license and amendments have been incorporated, when appropriate, in the license 2AM-DOH-1335. Agnico's responses including timeline for implementation are detailed below:

- 1. The inspector is requesting the licensee explain where the "lined containment at the waste at the waste storage facility is and ensure all waste is managed and contained in a way approved by the NWB. The licensee appears to have failed to properly store Waste fuels, Glycol and Consumable Chemicals, based upon the information in "Table 4.0-1, of the Hope Bay Project Hazardous Waste Management Plan" which states the following;**
 - **Waste Fuels will be stored in "Steel containers stored within lined containment at Waste Management Facility.**
 - **Glycol(antifreeze) will be stored in "stored within lined containment at the Waste Management Facility.**
 - **Consumable Chemicals and Packaging (e.g. Process Plant chemicals, Wastewater Treatment Plant chemicals) will be stored in "Waste chemicals and plastic packaging stored within sea cans or lined containment at Waste Management facility"**

Agnico Response:

For managing hazardous waste material, waste management personnel has used seacan liners to ensure that liquid hazardous waste are within a lined containment at the waste storage facility, see photo 1.



To formalize this practice and ensure consistency, the operating procedure “Packaging and Labeling of Waste Materials” will be updated to require the installation of a seacan liner prior to packaging hazardous liquids for backhaul including spent or expired fuels. This will be completed by September 7, 2022.

In addition, the “Hope Bay Project Hazardous Waste Management Plan” will be updated to clarify that the lined containment at the waste storage facility could be within the seacans and not just a lined facility in which to stored unlined seacans. The Management Plan will be updated and submitted with the 2022 Annual Report submission in March 2023

To address the specific observations noted in the inspection report:

1. The waste fuel will be move to the lined area of the Upper Reagent Pad by September 31st, 2022 while we are looking into the disposal of this product.
2. Glycol totes at the powerhouse were relocated into lined seacan and the tote that remains at the powerhouse was placed on a secondary containment, see photo 2.
3. The secondary containment for the aircraft fuel at the helicopter pad was removed and replaced with a double-walled tank and additional berm to contain potential drips from the fuel nozzle, see photo 3.
4. The sulfuric acid drums in the open seacan racks were repackaged into lined seacans and relocated to the upper laydown area see photo 4, 5 and 6.

The consumable chemicals listed in the Table 4.0-1 are meant to refer to the waste generated from the use of the chemicals such as their receptacles. Consumable chemicals received in seacans from the sealift are managed and stored as per Hope Bay’s Spill Contingency Plan until they are ready for use, where they are moved to the camp pad.

2. **PART D, Item 27. Of the licence 2AM-DOH states that; “The Licensee shall direct all runoff and seepage from the Temporary Waste Rock Pad to the Pollution Control Pond for collection and transfer to the Tailings Impoundment Area. The licensee is to show what work is being done to ensure all waste water from the Waste Rock Stockpile is being contained and no waste is flowing past the installed sumps.**

Agnico Response:

The runoff and seepage from the Temporary Ore and Waste Rock Pads at Doris is collected by the Pollution Control Pond and secondary collection at the downstream sumps. The sumps are strategically located to act as a secondary capture methods should runoff or seepage from these areas bypass the Pollution Control Pond. The catchment areas of the sumps cover the extent of all Temporary Ore and Waste Rock Pads at Doris.



Runoff and seepage is captured in the system and is transported to the TIA.

The Pollution Control Pond is inspected on a regular basis to check for signs of seepage, erosion, slumping, or other signs of possible failure mechanisms and an annual inspection of the containment berm is also conducted as part of the Annual Geotechnical Inspection. The annual Aquatic Effects Monitoring Program (AEMP) evaluates impacts to Doris Lake and to date there have been no low action level response triggers initiated at the lake.

Results of seepage sampling and further information have been submitted to the Nunavut Water Board in the Hope Bay Project 2021 Nunavut Water Board Annual Report in March 2022. Section 9.

3. The licensee is to submit a spill report for the leaking containment at the generator oil storage.

Agnico Response:

The estimated amount being less than 100L of used oil and the location of the oil did not meet the requirement to submit a spill report to the authorities as per the Immediately Reportable Spills Table in the front section of Hope Bay's Spill Contingency Plan.

It is believed that the containment area has overflowed. Regular maintenance has since been scheduled to ensure this situation will not be repeated. The oil under the building is inaccessible for machinery and the removal with manual labor would put them at risk of an injury.

Since the oil is covered from the element by the building, the risk of it migrating is low. Any runoff from the area will be captured by the pollution control pond. We will plan the clean up if the building has to be moved or at the end of the mine during reclamation.

4. Based upon discussions with the licensee and the visible damage to the flora at the Madrid portal laydown from the construction material used it appears that the licensee has failed to follow the condition PART D, Item 1, of the licence 2AM-DOH which states; "The Licensee shall use fill material for construction from an approved source that shall be free of contaminants." The licensee is to provide evidence that the construction material was approved and free of contaminants.

Agnico Response: TMAC constructed the Madrid North portal pad and adjacent Madrid shop laydown area in 2019 using run-of-mine (ROM) waste rock from Naartok East Crown Pillar Recovery (NE CPR). Crushed rock from Quarry 2 was placed as a surfacing material on the pad. Prior to using waste rock as construction rock, TMAC conducted a program of geochemical classification and segregation for NE CPR waste rock based on the



recommendations of SRK. A geochemical investigation in September 2020 indicated that the Madrid North Portal Pad construction rock contained varying proportions of sedimentary rock, that despite not being an approved rock type, was overall classified as non-PAG with arsenic content below the arsenic criterion required for classifying waste rock as suitable as construction rock. The source of seepage causing the visible damage to the flora was briny waste rock placed on Madrid North Portal Pad and not construction rock sourced from NE CPR. The briny waste rock was tested and confirmed non-acidic and non-PAG. However, the hypersaline solution on the waste rock resulted in increased metal leaching rates and mobility as a response to ion exchange and/or formation of chloride complexes. These results are documented in the 2020 Waste Rock, Quarry and Tailings Monitoring Report, Doris and Madrid North Mines (SRK, 2021) submitted to the NWB with the 2020 Annual Report.

The results of the 2021 Portal Pad seepage survey indicates that reclamation activities have improved seepage chemistry. Results of sampling and further information have been submitted to the Nunavut Water Board in the Hope Bay Project 2021 Nunavut Water Board Annual Report in March 2022, section 9.1.3.

5. **PART J, item 1 of the licence 2AM-DOH states; “The Licensee shall install and maintain flow meters or other such devices, or implement suitable methods required for the measuring of water use and Effluent discharge volumes, to be operated and maintained to the satisfaction of an Inspector.” The licensee it to install a flow meter at all water intakes, the current method does not appear to be accurately recording water usage.**

Agnico Response: Flow meters at Doris Lake Intake and Windy Lake Intake will be installed by January 2nd 2023.

6. **PART E, Item 7 of the licence 2AM-DOH states; “The Licensee shall provide the controls necessary to prevent erosion to the banks of any body of water. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.” The inspector is requesting the licensee implement sediment and erosion controls to prevent entry of sediment in the water.**

Agnico Response: The erosion gully indicated in Photo 13 from the inspector’s report at Windy Camp is a historic disturbance and does appear to be in a pseudo-stable state, similar to the undisturbed shoreline banks around it. These shorelines undergo natural erosion processes due to events like fluctuating water levels.

Any major remediation effort would likely result in additional disturbance and sediment transport as the newly disturbed area restabilized.



Alternatively, Agnico plans to place silt fence, and coconut matting at strategic locations near or within the gully to reduce erosion potential and control runoff where possible. The silt fence at the base will act to capture any sediment generated and allow visual monitoring for sediment transport within the gully.

Monitoring of the gully will be done at least once per year after freshet to identify if erosion rates are accelerating.

Should you have any questions please feel free to contact me at nancy.harvey@agnicoeagle.com

Sincerely,

Nancy Duquet Harvey
Environmental Superintendent - Agnico Eagle Mines Limited - Hope Bay Mine

Cc:
Licencing (NWB)
Jeremy Fraser
Kelli Gillard

Attachments

Photos



Photo 1: Previously packaged waste oil in lined seacans, located at Roberts Bay Waste Management



Photo 2 : Totes at the powerhouse placed on a secondary containment



Photo 3 : Double-walled tank and additional berm to contain potential drips from the fuel nozzle
replace the cracked spill tray



Photo 4: Repackaged sulfuric acid drums from Roberts Bay laydown area



Photo 5 and 6 : Sulfuric acids drums have been removed from flat racks