AGNICO EAGLE

June 21, 2023

Nunavut Water Board
Richard Dwyer, Manager of Licensing
PO Box 119
Gjoa Haven, NU

Re: Modification 2AM-DOH1335 – Responses to Comments Received on Inclusion of Composter

Dear Mr. Dwyer,

Agnico Eagle Mines Limited thanks the Kitikmeot Inuit Association, Crown-Indigenous Relations and Northern Affairs Canada, and Environment and Climate Change Canada for their review and comments to the inclusion of a composter under Water Licence 2AM-DOH1335. Responses to the comments and recommendations received are enclosed.

Should you have any questions or require further information, please contact the undersigned at your convenience.

Sincerely,

Manon Turmel
Permitting and Regulatory Affairs Superintendent
Agnico Eagle Mines Limited

KITIKMEOT INUIT ASSOCIATION (KitIA)

Interested Party:	**KitIA**	**Rec No.:**	**KitIA-R-01**
Re:	**Inclusion of Composter**		

Request Made by Interested Party:
The KIA has reviewed the modification for inclusion of the composter at Hope Bay. The KIA has no comments to submit to the water board.

Agnico Eagle's Response to Request:
Agnico Eagle acknowledges the KitIA response and appreciates their review on the inclusion of the composter.

CROWN-INDIGENOUS RELATIONS AND NORTHERN AFFAIRS CANADA (CIRNAC)

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-R-01**
Re:	**Compost Testing**		

Request Made by Interested Party:

Following the review of the materials provided in the modification package, specifically Hope Bay Incinerator and Composter Waste Management Plan, CIRNAC is left with the following questions with respect to the processing of the compost, specially,

a) At what stage is the compost tested, before it is moved to either the quarry or landfill?
b) When, where and how will the quarry be tested for potential leakage?
c) Will compost category A and B be stored in the quarry?
d) To what standard is the compost going to be used for revegetation or other purposes?
e) Will these results of the quarry testing and batch testing be placed in the annual report?

CIRNAC recommends that the applicant answer the questions above.

Agnico Eagle's Response to Request:

Response a)

After the required process duration (i.e., depending on the amount of material composted, the material may have a residency time of between 9-20 days in the composter), the material will be tested and if the results are acceptable will be put to the overburden pile. If material can't be used as reclaim material it will be disposed of in the south or put in our approved landfill.

Response b)

Agnico Eagle proposes to stockpile processed compost for progressive closure and store the material in the overburden stockpile west of the Doris Camp or in Quarry 2. Both of these locations are situated at a distance from surface water systems, and any run-off observed will be managed within the facilities. Any surface water runoff will be managed according to the Water Licence requirements. Should water quality not meet quarry discharge criteria it will be pumped to the TIA in accordance with our approved Water Management Plan.

Further, Agnico Eagle will manage the stockpile in accordance with the Water Licence including maintaining a minimum distance of 31 m from any surface water sources.

Response c)

Compost category A (unrestricted use) will be temporarily stored in quarry, either used for progressive reclamation, or moved to the overburden pile. Compost category B (restricted use) will be stored in the quarry. If material can't be used as reclaim material (i.e., category B), it will be disposed of in the south or put in our approved landfill.

Response d)

In Nunavut, there are no regulations or guidelines specific to the quality or uses of compost product, however, guidelines for compost quality and categorization exist at the federal level. Accordingly, Agnico Eagle will adhere to the CCME Guidelines for Compost Quality (2005) for compost usage across the site.

Response e)

Yes, results will be provided in the Annual Report.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-R-02**
Re:	**Reclamation and Closure**		

Request Made by Interested Party:
An updated Reclamation and Closure Plan, that includes closure of the quarry, was not provided by the proponent in this application for modification.

CIRNAC recommends that the applicant update the Reclamation and Closure Plan to include the quarry.

Agnico Eagle's Response to Request:
Upon completion of operations, the composter will be removed, and the Quarry 2 area will be decommissioned and left in a physically stable state and reclaimed as per the Preliminary Closure and Reclamation Plan approved under Water Licence 2AM-DOH1335. Therefore, Agnico Eagle does not agree that an update is required to the Closure and Reclamation Plan at this time.

Further details on general quarry closure are provided in Section 2.3 of the Hope Bay Project Quarry Management Plan (September 2022).

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-R-03**
Re:	**Materials Used in Composter**		

Request Made by Interested Party:
It is unclear which camp(s) / water license(s) will deposit their waste into the compost materials under this licence (2AM-DOH1335).

CIRNAC recommends that the applicant clarify where the materials for the composter will be obtained from, in what quantities and ensure that there is a method to track the volumes of waste from each source.

Agnico Eagle's Response to Request:
Materials for the composter will be obtained from the Doris camp, and from Doris and Madrid activities associated with 2AM-DOH1335, 2BB-MAE1727, and 2BE-HOP2232. Currently it is assumed that the compost material would consist of 700 kg food waste + 30% cardboard composted per week as a low case (per Hope Bay Incinerator and Composter Waste Management Plan), and 2,100 kg food waste + 30% cardboard composted per week (maximum camp capacity of 400 persons) as the high case.

Agnico Eagle will complete documentation records as outlined in Section 3.3 of the Incinerator and Composter Waste Management Plan.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-R-04**
Re:	**Compost Use and Storage**		

Request Made by Interested Party:

Following the review of the materials provided in the modification package, specifically Hope Bay Incinerator and Composter Waste Management Plan, CIRNAC is left with the following questions with respect to the use of compost and its storage throughout its life, specially,

a) Where will the material be stored before compost starts? How long will the compostable materials be accumulating before being inserted into the composter?
b) How much of the compost is expected to be in a liquid state?
c) Where will the compost be stored immediately after compost is created?
d) How often will the compost be brought over to the quarry?
e) Compost comes out of the composter warm and still needs to be cured for several days before it can be used. Will AEM deposit the compost into the quarry before such time that it is done maturation?
f) How will the compost be stored in the quarry?
g) How close is the quarry to water bodies?
h) Is there a potential for compost dust to get into water bodies?
i) Is it expected that this quarry will fully be able to support all materials for the period of the water license and to what degree will the quarry be filled with compost?
j) When and where will the compost be used? Will AEM ask for approval before the use of the compost?

CIRNAC recommends that the applicant answer the questions above.

Agnico Eagle's Response to Request:

Response a)

Per Section 2.2.3 of the Hope Bay Incinerator and Composter Waste Management Plan, waste is segregated at the source to ensure non-compostable waste streams do not enter the composter. Collected compostable waste are stored in dedicated waste containers, located throughout the Hope Bay Mine where organic material may be produced. Currently at site compostable waste material is collected daily to as needed. For example, paper and cardboard is not typically collected daily; however, food from the kitchen is done daily.

Response b)

Based on the acceptable wastes from composting, very limited liquid is anticipated. However, due to the nature of the organic material, some liquid could be expected from such acceptable waste like sauces and gravy. Of the 700 kg food waste per week, sauces and gravy would contribute little to the overall number.

Response c)

Agnico Eagle proposes to stockpile processed compost in 1 m^3 mega bags, the bags will be stored in seacans in Quarry 2.

Response d)

The number of times of compost material will be transferred to the overburden pile will depend on the residency time in the composter. Compostable material requires a minimum of nine days in the composter, but as stated by the manufacturer, could be between 9-20 days.

Response e)

As stated in the previous response, compost will be transferred into 1 m^3 mega bags and the bags will be stored in seacans in Quarry 2. The cured compost will be transferred in mega bags and used for progressive closure pending it meets criteria described in CIRNAC-R-01 b; or will be moved over to and stored in the overburden stockpile west of the Doris Camp or in Quarry 2.

Response f)

Refer to response c) above.

Response g)

Refer to response to CIRNAC-R-01 b).

Response h)

To control odours during composting and windblown debris, the composter will be housed inside a refurbished coverall located in Quarry 2. Potential for generation of dust from compost stockpiles is considered similar to stockpiled aggregate already housed in the waste management area and will be managed according to best management practices for stockpiled overburden material (watering or cover as needed). Dust onsite is monitored regularly according to the site's air quality monitoring program.

Response i)

The quarry will be able to support all materials for the period of the Water Licence. For the past few years of operation at Doris and currently, the quarry adequately facilitates waste storage and final sorting, prior to incineration; using only a small portion of the footprint of Quarry 2. Based on the operation at Meadowbank, volume estimates of compost generated at Hope Bay will be approximately 33 tonnes per year (stored in mega bags) that will be stored in a few seacans. If compost material meets the category A criteria for unrestricted use, it will be removed from Quarry 2 and used for progressive reclamation or moved to the overburden pile for storage.

Response j)

Future use of the processed compost from domestic waste will be used in progressive closure and reclamation that may include rehabilitation following exploration diamond drilling, capping waste rock facilities, and re-grading the base of abandoned quarries to encourage vegetation.

Interested Party:	**CIRNAC**	**Rec No.:**	**CIRNAC-R-05**
Re:	**Water Management Strategy for Quarry Missing**		

Request Made by Interested Party:

There was no water management strategy for the quarry stated in the modification application. This is a concern as now the quarry will be filled potentially decreasing water percolation which naturally occurs at quarries, which may potentially lead to water accumulation inside the quarry or the transmission of organic and other compounds off site via ground water migration. There is no information on how contact water will be treated or addressed on site.

CIRNAC recommends that the applicant state what activities will be undertaken and how they will add the operations of a composting area into the water management strategy for the whole of the site.

Agnico Eagle's Response to Request:

Agnico Eagle will continue to adhere to water management requirements in Quarry 2 as per our Water Licence and as stated in Hope Bay Project Doris and Madrid Water Management Plan (March 2023) Section 3.2.8 – Quarry Water Management. Quarry 2, and therefore composting area water management has already been integrated into the whole of the site. As per the management plan, Quarry 2 has been developed such that water is confined within the quarry boundaries. Water quality samples will be collected prior to discharge. If water quality meets licence criteria for discharge, it will be discharged in accordance with the Water Licence. In the event that water quality samples collected in the quarry do not meet the discharge criteria, an appropriate mitigation plan will be developed, which may include pumping the water to the TIA.

ENVIRONMENT AND CLIMATE CHANGE CANADA (ECCC)

Interested Party:	**ECCC**	**Rec No.:**	**ECCC-R-01**
Re:	**Potential Accidental Spill Release**		

Request Made by Interested Party:

The proponent indicated that incinerator units are supplied by dedicated diesel fuel tanks. The fuel storage, secondary containment and fuel delivery lines are subject to regular inspection. There are also spill kits available nearby in the event of a spill or leaking fuel line. However, the information in regards to emergency management during a spill is very limited. The volume of diesel and other combustible materials on site needs to be provided to ensure that appropriate response measures are taken.

ECCC recommends that the Proponent demonstrate how the project's environmental risks have been evaluated, and what they have done to prepare for and mitigate spills or releases of hazardous or deleterious substances that are likely to result from unplanned accidents and malfunctions.

Agnico Eagle's Response to Request:

Agnico Eagle would like to clarify that the incinerator has already been approved through the environmental review and water licensing process and changes are not proposed as part of the Modification request.

However, Agnico Eagle adheres to the Spill Contingency Plan which is in place to ensure that best practices for response are implemented in the event of a spill or unintentional release, and that the conditions of water licences, project permits, and relevant legislations are met (i.e., Environmental Emergency (E2) Regulations, as well as the Metal and Diamond Mining Effluent Regulations enacted under the Canadian Environmental Protection Act).