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Prairie & Northern Region  
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ECCC File: 6920 000 002/001  
NWB File: 1BR-COR----



May 12, 2023

via email at: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)

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

Dear Richard Dwyer:

**RE: 1BR-COR---- – Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) – Coral Harbour Former Military Site Remediation Project – Type B Water Licence Application**

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned water licence application.

ECCC provides expert information and knowledge to project assessments on subjects within the department's mandate, including climate change, air quality, water quality, biodiversity, environmental preparedness and emergencies. This work includes reviewing proponent characterization of environmental effects and mitigation measures, and providing advice to decision makers on activities needed to mitigate these environmental effects. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

**1. Incinerator Stack Testing**

Reference(s)

- Section 6.1.3 Liquid Petroleum Products Remedial Options, Updated Remedial Action Plan, Coral Harbour Site, Nunavut
- Table 8-1 Proposed Schedule, Updated Remedial Action Plan, Coral Harbour Site, Nunavut
- Canada Wide Standards for Dioxins and Furans (CCME, 2001)



### Comment

Section 6.1.3 of the Updated Remedial Action Plan states that the “estimated volume of liquid petroleum products requiring incineration is 130,745 L.” Table 8-1, indicates that the incinerator operating period was between September 2022 and September 2024. According to the Canada Wide Standards for Dioxins and Furans, incinerators with capacity larger than 26 tonnes per year must achieve the stack concentration as confirmed by annual stack tests. Based on the information provided, it is likely that over 26 tonnes per year of combustible materials will be incinerated for this project, yet stack testing is not discussed in the application.

### ECCC Recommendation(s)

ECCC requests clarification on whether the incinerated amount of combustibles is likely to exceed 26 tonnes per year. If it is likely to exceed 26 tonnes per year, ECCC requests that the Proponent provide a schedule for annual incinerator stack testing.

## **2. Acid Rock Drainage / Metal Leaching (ARD/ML) Materials**

### Reference(s)

- Section 10.3.1.1 Change to Surface Water Quality, Coral Harbour Former Military Site Remediation Project, Project Proposal Report
- Table 10-5 Potential Effects and Mitigations for Surface Water, Coral Harbour Former Military Site Remediation Project, Project Proposal Report
- Table 10-6 Potential Effects and Mitigations for Groundwater, Coral Harbour Former Military Site Remediation Project, Project Proposal Report
- Table 10-7 Potential Effects and Mitigations for Fish and Fish Habitat, Coral Harbour Former Military Site Remediation Project, Project Proposal Report
- Table 10-9 Potential Effects and Mitigations for Terrain, Soils and Permafrost, Coral Harbour Former Military Site Remediation Project, Project Proposal Report
- Table 11-1 Summary of Mitigation Commitments, Coral Harbour Former Military Site Remediation Project, Project Proposal Report

### Comment

Section 10.3.1.1 states “ARD/ML will be evaluated prior to borrow source use, if material will be processed (crushed) for use. Borrow sources with potential to generate ARD/ML will not be used.”

Tables 10-5, 10-6, 10-7, 10-9, and 11-1 state that “material with acid rock drainage / metal leaching (ARD/ML) potential will not be used for the Project.”

Although the proposal indicates in several areas that ARD/ML materials will not be used, it does not indicate how the evaluation will be conducted or which tests will be conducted to characterize the borrow materials for its ARD/ML potential before use.

### ECCC Recommendation(s)

ECCC recommends that the Proponent test all borrow materials and indicate the types of characterization tests that will be conducted to determine ARD/ML potential before use.

## **3. Aqueous Liquids**

### Reference(s)

- Section 1 Site Description and characteristics, Fuel and Hazardous Material Spill Contingency Plan, Coral Harbour Site Remediation Project, Near Coral Harbour Hamlet, Nunavut

### Comment

Section 1.3 includes a list of hazardous waste, which includes aqueous liquids with a volume listed as "unknown." Unknown substances with unknown volumes can prove to be dangerous if not identified properly in advance. Proper hazard identification will ensure the appropriate mitigation measures are implemented.

### Recommendation(s)

ECCC recommends that the Proponent specify which "aqueous liquids" are included as hazardous waste, in order to better understand the fate and behaviour of these substances during an emergency.

## **4. Batteries**

### Reference(s)

- Section 1 Site Description and characteristics, Fuel and Hazardous Material Spill Contingency Plan, Coral Harbour Site Remediation Project, Near Coral Harbour Hamlet, Nunavut

### Comment

Section 1.3 indicates less than 10 cubic meters of batteries will be present as hazardous waste at the remediation site. Batteries typically contains sulfuric acid which is highly corrosive, and require different response procedures than a fuel spill. The plan should therefore anticipate a spill of sulfuric acid, and provide appropriate response procedures.

### Recommendation(s)

ECCC recommends that the Proponent provide spill response measures for a spill involving sulfuric acid.

If you need more information, please contact Stephinie Mallon at [Stephinie.Mallon@ec.gc.ca](mailto:Stephinie.Mallon@ec.gc.ca).

Sincerely,

*[original signed by]*

Stephinie Mallon  
Environmental Assessment Officer

cc: Melissa Pinto, Acting Head, Environmental Assessment North (NT and NU)