



Your file - Votre référence
1BR-MTH----

March 28, 2017

Our file - Notre référence
IQALUIT-#1138862

Licensing Department
Nunavut Water Board
GJOA HAVEN, NU X0E 1J0

Sent via email: licensing@nwb-oen.ca

Re: New Water Licence Application, 1BR-MTH----

To Whom It May Concern,

Thank you for providing an opportunity to review Indigenous and Northern Affairs Canada Contaminated Sites Program's application for a new Type B Water Licence associated with its CAM-C (Matheson Point) Remediation Project, No. 1BR-MTH----

A memorandum is provided for the Nunavut Water Board's consideration. Comments and recommendations are provided pursuant to Indigenous and Northern Affairs Canada's mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Indian Affairs and Northern Development Act*.

Please do not hesitate to contact me by telephone at 867-975-4555 or email at David.Abernethy@aandc-aadnc.gc.ca for further information.

Sincerely,

David Abernethy
Regional Coordinator
Water Resources Division
Resource Management Directorate
Indigenous and Northern Affairs Canada
IQALUIT, NU X0A 0H0

Encl.

Cc. Dele Morakinyo, Indigenous and Northern Affairs Canada



Memorandum

To: Licensing Department, Nunavut Water Board

From: David Abernethy, Water Resources Division, Indigenous and Northern Affairs Canada

Cc: Dele Morakinyo, Contaminated Sites Program, Indigenous and Northern Affairs Canada

Date: March 28, 2017

Re: New Water Licence Application, 1BR-MTH----

Licensee: Indigenous and Northern Affairs Canada, Contaminated Sites Program

Project: CAM-C (Matheson Point) Remediation Project

Region: Kitikmeot

A. BACKGORUND

On February 28, 2017, the Nunavut Water Board (NWB or Board) invited interested parties to comment on Indigenous and Northern Affairs Canada Contaminated Sites Program's (the "Applicant") application for a new Type B water licence (No. 1BR-MTH----) associated with its CAM-C (Matheson Point) Remediation Project. Interested parties were asked to provide comments by March 28, 2017.

CAM-C is an abandoned Intermediate Distant Early Warning Line Site situated 30 km northeast of Gjoa Haven, Nunavut. It is located on Crown Land and will be remediated in accordance with a project specific Remedial Action Plan. Site remediation activities will be supported by a seasonal 30 person capacity camp that will mobilized to the project area. According to the submitted Remedial Action Plan, "the remediation activities at CAM-C are anticipated to be completed in one full year with mobilization by barge in the late summer/fall of Season 1 and construction and demobilization in the summer/fall of Season 2."¹

The Remedial Action Plan also states that no landfills will be constructed on site, rather recovered non-hazardous and hazardous wastes will be packaged and shipped off-site for disposal at appropriate, licensed facilities.²

The Airstrip Landfill will be excavated and remediated. All other buried debris areas will be

¹ AECOM. *Public Works and Government Services Canada. CAM-C, Matheson Point Remedial Action Plan, Final Report*. Project No. 60299674(505). Page i. March 5, 2014.

² Ibid. Page 23.

remediated through the placement of additional granular cover material. A landfarm treatment area has been proposed for the treatment of 570 m³ of type B total petroleum hydrocarbon contaminated soil (in accordance Indigenous and Northern Affairs Canada's 2008 *Abandoned Military Site Remediation Protocol*).

A five year licence term has been requested (expiring in March 2022).

B. RESULTS OF REVIEW

On behalf of Indigenous and Northern Affairs Canada's ("INAC") Water Resources Division, the following comments and recommendations are provided.

1. Camp greywater discharge pit

Reference

Indigenous and Northern Affairs Canada. *Exploration / Remote Camp Supplementary Questionnaire*. Item 32.

Indigenous and Northern Affairs Canada. *Application for New Water Licence, CAM-C (Matheson Point) Site Remediation Project*. Item 15. January 27, 2017.

Comments

The submitted questionnaire states that camp greywater will either be treated in a sewage lagoon or be directed to a discharge pit excavated a minimum of 30 m from the camp and from nearby water bodies. Up to 3,000 litres of greywater will be produced each day that site remediation activities are performed.

If a discharge pit is excavated in permeable soils, permafrost degradation may result from the deposit of camp greywater (erosion).

Recommendations

If the Applicant determines that a discharge pit is the most suitable means of disposing camp greywater, it must ensure that it will not result in permafrost degradation (soil erosion) to surrounding soils. Any such pit should be established in a bedrock area or outcrop.

The Applicant should notify the NWB how it will manage camp greywater (lagoon or discharge pit) prior to mobilizing its camp facility.

2. Sewage Lagoon/Treatment Facility Operations and Management Plan

Reference

Indigenous and Northern Affairs Canada. *Exploration / Remote Camp Supplementary Questionnaire*. Item 15. January 27, 2017.

Indigenous and Northern Affairs Canada. *Exploration / Remote Camp Supplementary Questionnaire*. Item 32. January 27, 2017.

Comments

The submitted questionnaire states that up to 1,500 litres of sewage will be produced each day that site remediation activities are performed. This sewage will report to either a sewage lagoon or treatment facility. Treated effluent that meets discharge criteria will be released onto the land.

The questionnaire also states that, “the project contractor will decide on whether to use a sewage lagoon or any other appropriate treatment method (e.g., compact moveable wastewater treatment plan) to treat the sewage generated from the site. The Plan that is eventually selected by the contractor will be forwarded to the NWB as soon as it is available.”

Recommendations

Prior to conducting site remediation activities, the Applicant should have a NWB approved operations and management plan specific to its sewage lagoon/treatment facility. As a minimum, this plan should include the following information:

- details on the selected sewage treatment facility;
- discharge criteria;
- description of the discharge point and receiving environment;
- contact information;
- monitoring requirements;
- seasonal shutdown requirements;
- engineering drawings and specifications; and
- description of the location where the facility will be constructed/mobilized.

The Applicant should also consider including greywater management details in its sewage lagoon/treatment facility operations and management plan. Having information on domestic wastewater management in one management plan would facilitate the review and understanding of licensed undertakings.

3. Landfarm Operations and Management Plan

Reference

Indigenous and Northern Affairs Canada. *Exploration / Remote Camp Supplementary Questionnaire*. Item 15. January 27, 2017.

Comments

The submitted questionnaire states that 570 m³ of Type B hydrocarbon contaminated soils will be excavated and remediated at an on-site landfarm treatment facility. An operations and management plan for this facility cannot be found in the submitted application.

Recommendation

Prior to commencing site remediation activities, the Applicant should have a NWB approved operations and maintenance plan specific to its landfarm treatment facility. The Applicant should review recommendations on landfarm operations contained in the Nunavut Impact Review Board's Screening Decision Report (pages 14 and 21) when preparing this plan. As a minimum, this plan should include the following information:

- The properties of the soils that will be treated in the landfarm treatment area (i.e., hydrocarbon fractions);
- soil treatment criteria;
- water management/treatment measures (i.e., snowmelt and rain water);
- contact information;
- monitoring requirements;
- seasonal shutdown requirements;
- engineering drawings and specifications; and
- description of the location where the facility will be constructed/mobilized.

4. Fuel and Hazardous Material Spill Contingency Plan Update

Reference

Public Works and Government Services Canada, Real Property Services, Architectural & Engineering Services. *Fuel and Hazardous Material Spill Contingency Plan – CAM-C (Matheson Point) Intermediate Distant Early Warning (DEW) Line Site, Nunavut*. Submitted by Indigenous and Northern Affairs Canada to the Nunavut Water Board. October 2016.

Comments

The Applicant will prepare and implement an updated Fuel and Hazardous Material Spill Contingency Plan prior to commencing site remediation activities. This plan will be prepared by the contractor that will be awarded to complete the remediation project. Section 2.2 of the

submitted (draft) plan identifies information that will be included in the updated plan.

The plan's Key Contacts' List (Section 6) does not include contact information for the INAC Manager of Field Operations who manages Inspectors designated by the Minister of Indian Affairs and Northern Development under Section 85(1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. This individual should be notified of any hazardous material spills.

Recommendations

- a) The Applicant must ensure that the updated Fuel and Hazardous Material Spill Contingency Plan is approved by the Nunavut Water Board prior to commencing site remediation activities.
- b) The updated Fuel and Hazardous Materials Spill Contingency Plan should be revised to include the following contact information for the INAC Manager of Field Operations. This individual should be notified of any hazardous material spills.

Telephone: (867) 975-4295

Facsimile: (867) 979-6445

5. Post-Closure Monitoring Plan

Reference

AECOM. *Public Works and Government Services Canada, CAM-C, Matheson Point, Remedial Action Plan, Final Report*. Prepared for Public Works and Government Services Canada. Project No. 60299674(505). Page ii. March 5, 2014.

Comment

The Applicant has not described what post-closure monitoring activities will be implemented following site remediation activities. These monitoring activities would help determine the efficiency of completed site remediation activities (i.e., determine if there is any migration of contaminants into the surrounding environment).

The Remedial Action Plan's executive summary states, "Post-construction monitoring will be required for the low or medium risk Waste Disposal Areas left in place on site, as per the *Abandoned Military Sites Remediation Protocol*. The specific monitoring program will be confirmed once remedial activities have been completed."

Recommendation

The Applicant's licence should require that a post-closure monitoring plan be submitted for review and approval within three months of completing site remediation activities.

6. Abandonment and Reclamation Plan

Comment

The Applicant will mobilize a 30 person seasonal camp, a storage area(s) for fuel and other hazardous materials, a landfarm treatment area, and utilize various assets (equipment and supplies). No details have been provided on how the infrastructure and assets will be managed at the end of each field season, during an interim closure phase, or once site remediation activities have been completed.

The submitted Remedial Action Plan provides sufficient detail for the Applicant's objective to remediate the larger CAM-C (Matheson Point) project.

Recommendation

The project licence should require the Applicant to submit an Abandonment and Reclamation Plan for infrastructure constructed to support site remediation activities and assets brought to site. Infrastructure would include but not be limited to the 30 person seasonal camp, storage areas for fuel and other hazardous materials, and the landfarm treatment area. The plan should provide sufficient detail on how infrastructure and assets will be managed at the end of each field season, during an interim closure phase, and following the completion of site remediation activities.

7. Requested Five Year Licence Term

Reference

Indigenous and Northern Affairs Canada, Contaminated Sites Program. *General Water Licence Application (Application for a New Water Licence submitted to the Nunavut Water Board*. Item 25. January 27, 2017.

Comment

The Applicant is requesting a five year licence term. Site remediation activities should be completed within this time period. The licence should subsequently be renewed for a longer time period (e.g., 10-20 years) and include terms and conditions specific to post-closure monitoring requirements.

Recommendation

INAC Water Resources supports the issuance of a five year water licence.