

Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 197/001
NIRB File: 126012-24EN052



January 31, 2025

via email at: info@nirb.ca

Tundra Kuliktana
Screening Officer
Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Dear Tundra Kuliktana:

RE: 24EN052 – Atha Energy Corp. – Thelon Property – Exploration Project Proposal

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) by Atha Energy Corp. (“the Proponent”) regarding the above-mentioned project proposal for exploration.

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 emergencies preparedness and responses. This work includes reviewing proponent characterization of environmental effects and proposed mitigation measures. We provide advice to decision-makers regarding a proponent’s characterization of environmental effects, the efficacy of their proposed mitigation activities, and may suggest additional mitigation measures. 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. Disposal of Radioactive Wastes

Reference(s)

- Waste Management Plan, Section 3.1.12 Radioactive Wastes

Comment

It is assumed that eU refers to elemental Uranium, however it is not defined within the documentation.



The proponent indicates that drill cuttings will be placed in a depression unless the uranium (U) content is greater than 0.05% (eU equivalent), in which case the drill cuttings will be placed back into the drill holes and sealed with grout. It is recommended that key naturally occurring radioactive material (NORMs) are analyzed in addition to eU to ensure that radiological risk associated with NORMs is considered adequately.

ECCC Recommendation(s)

ECCC recommends the Proponent analyze key NORMs in addition to eU to ensure that radiological risk associated with NORMs is accounted for, and that the Proponent update the plan to include a clear definition of eU for clarity.

2. Secondary Containment - Berms

Reference(s)

- Spill Contingency Plan, Section 3.1 Storage and Secondary Containment
- Waste Management Plan Section 4.1 Hazardous Waste Storage Area

Comment

The proponent indicates that: "All secondary containment berms are to be capable of holding 110 percent of the volume of the largest fuel reservoir that is housed within the secondary containment." The project proposes to store fuel in 205 L drums, suggesting a minimum berm capacity of only 225.5 L. Given that there will be up to 1540 drums of fuel on site, it is almost certain that multiple drums will be stored together within a berm. If multiple drums fail and release their contents, this capacity may not be sufficient to contain the spill.

ECCC Recommendation(s)

For berms storing a single tank, it is recommended that the proponent use berms with 110% of the capacity of the tank. For berms storing more than one tank, it is recommended that the proponent use berms with a capacity of not less than 100% of the capacity of the largest stored reservoir PLUS the larger of (1) 10% of the capacity of the largest stored reservoir, or (2) 10% of the aggregate capacity of all other the other reservoirs stored within the same berm [As outlined in section 3.9 of the Code of practice for storage tank systems containing petroleum and allied products].

3. Secondary Containment - Size

Reference(s)

- Spill Contingency Plan, Section 3.1 Storage and Secondary Containment
- Waste Management Plan, Section 4.1 Hazardous Waste Storage Area

Comment

The proponent indicates that: "All secondary containment are to be of sufficient height and depth to hold any potential spill or failure." However, the parameters of what the proponent considered to be a worst-case "potential spill or failure" are not indicated, and therefore the sufficiency of the secondary containment height and depth cannot be assessed.

ECCC Recommendation(s)

ECCC recommends the Proponent indicate what was considered to be a worst-case spill or failure for assessing sufficiency of the secondary containment height and depth. It is recommended that the secondary containment berm be sized to hold a capacity specified in ECCC Comment 2 at minimum.

4. Vehicle and Equipment Leaks

Reference(s)

- Spill Contingency Plan, Section 3.2 Handling, Transfer, and Transportation

Comment

The proponent indicates that: "Equipment maintenance and servicing are to be conducted in designated areas. Equipment is to be underlain by absorbent pads and spill trays for lubricant changes." This is a good practice. It is further recommended that additional measures be implemented to reduce the likelihood of hydrocarbon leaks and spills to the environment.

ECCC Recommendation(s)

ECCC recommends that all vehicles/equipment that are not in use or are parked overnight be parked over a drip tray or absorbent pad to catch any drips or leaks. It is recommended that all vehicles and equipment undergo regular inspection and maintenance to verify that there are no drips or leaks, and that all inspections and maintenance activities are documented.

5. Hydrocarbon Clean-Up

Reference(s)

- Spill Contingency Plan, Section 5.3 Spill Response Actions – Diesel Fuel, Jet Fuel, Hydraulic Oil, and Lubricant Oil

Comment

Within the section addressing spills to muskeg, the spill contingency plan refers to burning spilled product in localized areas. Burning spilled hydrocarbons can leave residues in the environment; however, cleanup of residues was not addressed.

ECCC Recommendation(s)

ECCC recommends the Proponent indicate how residues will be cleaned up after spilled products have been burned.

6. Secondary Containment – Remote Caches

Reference(s)

- Spill Contingency Plan, Section 1.2 Fuel & Hazardous Materials On-Site
- NIRB Application, Project Proposal, Identification of Impacts and Proposed Mitigation Measures

Comment

The spill contingency plan states: “Small amounts (2 to 3 drums each) of diesel and gasoline may be stored at the active drill sites as needed for drilling. Small remote fuel caches (< 4,000 L or 19 drums) may be established temporarily to support the other exploration activities. All fuel caches at the Project are not to total more than the permitted amount.”, while the project proposal states that: “Small fuel caches in the field are placed in shallow natural depressions which are a minimum of 31 metres from the normal high-water mark of nearby bodies of water.” It is unclear from the spill contingency plan and project proposal whether these remote caches would use portable secondary containment.

ECCC Recommendation(s)

Specify whether portable secondary containment would be used for small fuel caches in the field. It is recommended that portable berms be used to mitigate the possibility of fuel leaks and spills being released to the environment.

If you need more information, please contact Jennifer Sabourin at Jennifer.Sabourin@ec.gc.ca.

Sincerely,

Jennifer Sabourin
Environmental Assessment Officer

cc: Eva Walker, Head, Environmental Assessment North (NT and NU)