

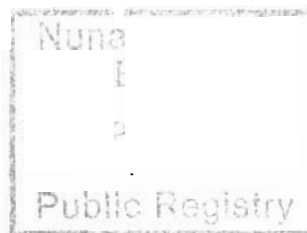


Environment Environnement
Canada Canada

Environmental Protection Branch
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September 23, 2004

Phyllis Beaulieu
Licensing Administrator
Nunavut Water Board
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Our file: 4782 033

Via facsimile

Re: NWB3CAM – Hamlet of Cambridge Bay – Municipal Water License

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned licence amendment application. The following comments are provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The Hamlet of Cambridge Bay is applying for an amendment to their existing water license to facilitate the construction and operation of a Land Farm to treat hydrocarbon contaminated soil.

Environment Canada recommends that the following general conditions be applied throughout all stages of the project:

1. The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body. According to the *Fisheries Act*, Section 36 (3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
2. A supply of spill kits, shovels, barrels, sorbents, pumps, etc. shall be consistently maintained and readily available onsite.
3. With respect to construction of new infrastructure, Environment Canada recommends that previously disturbed sites be selected that are in relative close proximity to existing infrastructure in order to localize and minimize disturbance of new areas.
4. **All spills** are to be documented and reported to the NWT 24 hour Spill Line at (867) 920-8130.

With respect to the construction and operation of this Land Farm, Environment Canada has the following recommendations. Please note that these guidelines are not intended to serve as a comprehensive set of design and operational specifications.

Siting

5. When siting a land treatment facility, it is recommended that the following locations be avoided:
 - a. Land having a slope greater than 6%
 - b. Land which is less than 3 m above the seasonal high water table of an aquifer that serves as a source of potable water

- c. Within 100 m of a surface water body
- d. Land identified as being within a 50 year floodplain
- e. Within 60 m of residential property lines or buildings

Design and Operating Requirements

6. Design plans and specifications should incorporate the following requirements:
 - a. A natural or engineered soil berm and impermeable liner system to restrict leachate migration
 - b. A means of collecting and holding contaminated runoff water and leachate
 - c. A means of controlling dust from and precipitation infiltration into the land treatment facility
7. Access to the site should be restricted through fencing or other suitable means and signs warning of the potential hazard.
8. Prior to the placement of contaminated soil in the land treatment facility:
 - a. The contaminated soil in question should be characterized with respect to the quality and level of contamination and a treatability study carried out to determine the feasibility of remediating the contaminated soil to an acceptable level that meets the appropriate criteria as set forth in CCME's Canadian Soil Quality Guidelines (CSQG).
 - b. A detailed set of operational procedures should be prepared which identifies:
 - i. The recommended frequency and method of soil tillage
 - ii. The type and application rate of any land treatment amendments, i.e., water, air, lime, nutrients, or inoculum which may be required
 - c. A health and safety plan should be developed which addresses both the site workers and, where applicable, nearby inhabitants.

Monitoring and Record Keeping Requirements

9. For the purpose of monitoring the performance of the land treatment process, soil samples should be taken no less frequently than once every four months, during the period of active land treatment to monitor contamination levels until analytical results are below acceptable levels as set forth in the CCME's Canadian Soil Quality Guidelines (CSQG).
10. For the purpose of monitoring for potential impact of the facility on groundwater quality in the active layer, groundwater samples should be taken from the down gradient monitoring wells no less frequently than twice per year and analyzed for indicators of petroleum hydrocarbon contamination. Should analytical results indicate groundwater contamination associated with the land treatment facility, corrective action should be taken as soon as possible.
11. Accurate records should be maintained by the Municipality which contain the following information:
 - a. A detailed description of the size and location of the land treatment facility
 - b. Quantitative and qualitative data on the soil treated at the site
 - c. Monitoring data as set forth above
 - d. The final destination of the treated soil and its intended use.

Decommissioning

12. Prior to the decommissioning of a land treatment facility, a plan should be prepared which:
 - a. Outlines removal procedures for any remaining soil and all other works at the site. i.e., liners, drainlines, etc.
 - b. Identifies the nature and level of any residual contamination that will remain on the site
 - c. Identifies the intended use of the site once the land treatment facility has been decommissioned.

13. The land treatment facility should be decommissioned in accordance with the above noted plan and associated records retained by the responsible Municipality.

The Canadian Wildlife Service (CWS) of Environment Canada has reviewed the amendment application and makes the following comments and recommendations pursuant to the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations*), and the *Species at Risk Act* (SARA).

14. The migratory bird breeding season in the project area extends from approximately June 1 to August 1. Some project activities associated with the construction and installation of this land farm will likely be scheduled during this period. Section 6 (a) of the *Migratory Birds Regulations* states that no one shall disturb or destroy the nests or eggs of migratory birds. Therefore, CWS recommends that landfarm construction be done outside the migratory bird breeding season, which extends from approximately June 1 to August 1. These dates are approximate, and if active nests (i.e. nests containing eggs or young) are encountered outside of these dates the proponent should avoid the area until nesting is complete (i.e. the young have left the vicinity of the nest).
15. If activities are permitted to occur during the breeding season, CWS recommends that the proponent confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity of their (ground-based) operations before activities commence. If active nests of migratory birds are discovered, the proponent should halt all activities until nesting is completed (i.e. the young have left the vicinity of the nest).
16. Section 35 of the *Migratory Birds Regulations* states that no person shall deposit or permit to be deposited, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds. **Operation of the landfarm must be such that migratory birds are not attracted to pooled liquids in the landfarm area; access must be prevented.**
17. Environment Canada recommends that all field operations staff and contractors be made aware of the required mitigation measures and provided with appropriate advice / training on how to implement these measures.
18. Implementation of these measures may help to reduce or eliminate some effects of the project on migratory birds, but will not necessarily ensure that the proponent remains in compliance with the *Migratory Birds Convention Act* (the *Act*) and *Migratory Birds Regulations* (the *Regulations*). The proponent must ensure they remain in compliance with the *Act* and *Regulations* during all phases and in all undertakings related to the project.
19. The *Species at Risk Act* (SARA) came into full effect on June 1, 2004. Species at risk that may be encountered in this area include: Peregrine Falcons (subspecies *tundrius*) and Polar Bears, both listed as species of Special Concern on Schedule 3 of the *Species at Risk Act* (SARA). While conducting their operations, the proponent should be aware of the special status, and minimize disturbance or contact with these species.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 669-4708 or by email at ivy.stone@ec.gc.ca.

Sincerely,



Ivy Stone
Environmental Assessment

cc: Steve Harbicht (Head, Assessment & Monitoring, EPB, Environment Canada, Yellowknife, NT)
Mike Fournier (Northern Environmental Assessment Coordinator, EPB, Environment Canada, Yellowknife, NT)