



Environment Environnement
Canada Canada

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Our file: 4685 010 001

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Via email at manager@nwb.nunavut.ca

RE: NWB5RES – Resolution Island Environmental Site Clean-up

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been 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*.

Indian and Northern Affairs Canada (INAC) have applied for a water license for the continued clean-up of Resolution Island, the abandoned BAF-5 Military Radar Station. The major activity planned under the new remediation plan is the excavation and disposal of PCB contaminated soils. The largest volume of soil to be excavated is at the S1/S4 beach, with smaller amounts at the S1/S4 valley, the DND helipad, and the airstrip dump. Tier II soils will be placed in an engineered lined landfill, and Tier I soils will be placed in non-hazardous landfills as intermediate fill. Some remaining work is also required on the dumps. The airstrip dump will be remediated, including the removal of CEPA oils and visible drums, followed by the covering of the entire dump with clean fill. The two beach dumps, the maintenance dump, the PCL dump and the north slope dump also require minor excavation of non-hazardous debris and Tier II and I soils. Other planned activities include the incineration and shipment of remaining drum contents, the remediation of an asbestos lined water line, the identification, excavation and landfarming of soils with lighter petroleum products, and the excavation and appropriate disposal of heavy petroleum hydrocarbons.

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

Fuel Storage

- Environment Canada requests clarification as to the long-term fate of the fuel storage tanks. Will these tanks be removed from the site or left to support future work?

Quarrying

- The proponent shall not deposit, nor permit the deposit of sediment into any water body. It is recommended that an undisturbed buffer zone be maintained between the proposed quarry operation and the normal high water mark of any water body.

Engineered Landfills

- Environment Canada recommends that the proponent keep a photo identification log of the location of all materials stored in the engineered landfills. This should include GPS coordinates of any hazardous material and Tier II contaminated materials, and a record of the type and volume of the material being landfilled. Additionally, a site indicating all disposal locations map should be developed.
- Environment Canada recommends that a perimeter collection ditch, or other such preventative measure, be implemented around the Tier II Engineered Landfill in order to collect any surface runoff and/or leachate that may occur. Any liquid that is collected should be tested prior to disposal to ensure proper handling.
- In order to minimize void spaces in the non-hazardous landfills, EC recommends that large, bulky waste be cut up into manageable sizes prior to placement in the landfill.
- During the closure of any of the dumps on site, EC recommends that if necessary, silt fences or other appropriate preventative measure be installed to prevent the deposition of sediment into waterbodies

Monitoring

- Environment Canada requires further information regarding the monitoring program for the site. Information required includes the location of the sampling points/monitoring wells, the parameters to be tested at each location, and reporting requirements. Details of the monitoring requirements for the thermistors planned to be installed in the engineered, lined landfill should also be included.

Miscellaneous

- The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes or sediment 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 other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- The proponent shall not store materials on the surface ice of lakes and streams.
- In the Spill Emergency Plan, Section 8 "Reporting Requirements", the following change should be made to reflect staffing changes:
 - The EC, Nunavut office contact name should be changed from Francois Rainville to Sid Bruinsma, Enforcement and Emergencies Officer. Mr. Bruinsma's contact number is (867) 975-4644.

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) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly,

Colette Meloche
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)
(Ed Collins, Chief, Environmental Engineering, Environment Canada, Yellowknife)