



**Environment Environnement  
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Our file: 4517 000 003

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**RE: NIRB 03DA035 – Defence Construction Canada – DEW Line Site Clean-up at FOX-5, Broughton Island, NU**

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*.

UMA Engineering Ltd., on behalf of Defence Construction Canada, is proposing to amend the October 2000 project description for the clean-up of the FOX-5 DEW Line Site at Broughton Island, NU. The first proposed change includes the containerization and storage of PCB amended paint materials on site for shipment to a licensed southern disposal facility for destruction, rather than constructing an on-site landfill for the disposal of this material. The second amendment is for the construction of two landfarms for the remediation of hydrocarbon-impacted soils. The landfarms are to be located at the Airstrip area and the Station area. The third amendment is regarding a change in the location of the Tier II Soil Disposal Facility and Non-Hazardous Waste Landfill. The new landfill location is located at the Middle Site between the main station and the community. The details on the construction of these facilities and their potential impacts and associated mitigation measures have not changed from the original submission.

Environment Canada requires the following information in order to facilitate the review of this application:

- If not provided with the original October 2000 project description, the location of the monitoring wells to be installed at the two landfarms, and the proposed frequency of the sampling.
- Recognizing that the interceptor trench has already been constructed, EC requests clarification as to whether the sorbents placed in the trench are hydrophobic. If the sorbents (especially those used to control surface run-off) are not hydrophobic and will become saturated with water during the spring freshet, EC recommends that additional sorbents be mobilized to the site in order to provide additional material in case it is needed.
- Additional information regarding the reasoning behind the need to relocate the Tier II Soil Disposal Facility and Non-Hazardous Landfill, and the process in which the new landfill site was chosen.

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

- The proponent shall not deposit nor permit the deposit of sediment into any water body. The ecological balance of fish and plants in rivers and lakes can easily be upset by sedimentation or blockage from quarrying. A minimum undisturbed buffer zone of one hundred metres (100) shall be maintained between the proposed quarry operation and the high water mark of any definable watercourse as identified on a 1:50,000 NTS map.
- The supporting documents submitted with the application state, "Excavating is not permitted within 2 metres of any watercourse or within 2 metres of the high water mark of the intertidal zone". Environment Canada recommends that if it is necessary to excavate contaminated soils this close to a waterbody, measures be taken to ensure that sedimentation of the waterway does not occur. The proponent shall not deposit, nor permit the deposit of any deleterious substances, including sediment, into any waterbody. 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.
- Environment Canada recommends that the proponent ensure that any hazardous materials, including contact water from the perimeter collection system of the interceptor trench, be disposal of at an approved facility.
- If not already completed, given the past fuel spills at the Fuel Storage Tanks adjacent to the airstrip, EC recommends that measures be taken to prevent further contamination of soils at this location, such as the use of secondary containment including self-supporting insta-berms.
- Any other recommendations made by EC during the original review of the project description in October 2000, especially those that relate to the construction and location of the landfarm and Tier II Soil Disposal Facility and Non-Hazardous Landfill, should also be applied to this project.

If there are any additional changes to the project, EC should be notified, as further review may be required. 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](mailto:colette.meloche@ec.gc.ca).

Yours truly,

Colette Meloche  
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)