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**RE: NWB3EKA – Indian and Northern Affairs Canada – FOX-C, Ekalugad Fjord DEW  
Line Clean-up – Site Investigation**

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) is proposing to conduct a site investigation at FOX-C, Ekalugad Fjord during the 2004 field season. The site investigation will include the delineation of various contaminants (hydrocarbons, PCB's, and heavy metals) in both soil and lake-bottom sediments, characterization of landfill contents, identification of various borrow sources for future cover requirements, site evaluation to determine if an engineered landfill can be constructed on site, and the identification of remaining hazardous wastes/materials (asbestos, PCB-containing equipment, and leaded paints). Some waste consolidation and barrel crushing will also occur as part of this summer's field program. The work will be supported from a temporary 15 person camp that will be occupied from August – September. The actual remediation work will be conducted during upcoming field seasons and will be subject to separate applications

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

- 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 application estimates that 120,000 L of waste oils and sludge are to be incinerated. Environment Canada recommends that an approved incinerator should be used for the disposal of combustible camp wastes.
- Once available, EC requests that the proponent submit a map detailing the location of all sumps, including those for the disposal of camp sewage and grey water.
- All sumps shall be located above the high water mark and in such a manner as to prevent



- the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape.
- An Operations and Maintenance (O&M) manual should be prepared and implemented once site remediation plans are started.
  - All fuel caches shall be located above the high water mark and in such a manner as to prevent the contents from entering any water body frequented by fish. Environment Canada is pleased that INAC will be using secondary containment for the storage of barrelled fuel on location.
  - INAC is currently proposing to sample the sediment of the unnamed lake adjacent to the site to determine if any contamination by PCB's, heavy metals and hydrocarbons has occurred. Environment Canada recommends that water samples also be taken to determine if the water itself has been contaminated.
  - Table 6-1 "Environmental Effects Assessment Matrix: Air Quality" in the report entitled "Work Planning Detailed Site Assessment and Preliminary Waste Consolidation Program at the Former FOX-C Military Base at Ekalugad Fjord" (herein referred to as Supplemental Report) attached to the water license application indicates that no mitigation will be implemented to reduce the potential impact of emissions of greenhouse gases, nitrous oxides, sulphur dioxide, particulate matter, and carbon monoxide from vehicles. Environment Canada recommends that low sulphur fuels be employed to help reduce greenhouse gas emissions from vehicles at the site.
  - Section 6.7.1.1 of the Supplemental Report discusses the *Species at Risk Act* (SARA). Environment Canada would like to inform the proponent that as of June 1, 2004, all of the SARA prohibitions have come into effect for those species listed as endangered or threatened on Schedule 1 of the *Act*. Environment Canada staff are available to discuss the implications of SARA on the FOX-C project.
    - Environment Canada would like to inform INAC that the polar bear, wolverine and *tundrius* peregrine falcon as listed as "species of special concern" by SARA, not as "Species at risk" as identified in Section 6.7.1.1.
  - Table 6-10 "Environmental Effects Assessment Matrix: Terrestrial Animals and Habitat" in the Supplemental Report makes reference to a potential environmental effect of "...disturb wildlife or destroy birds nests or eggs." Environment Canada would like to inform proponent that according to Section 6(a) of the *Migratory Birds Regulations*, it is an offense to destroy or disturb migratory birds or their nests or eggs.
    - Environment Canada recommends that the mitigation measures for this potential environmental effect be increased to include measures to prevent the destruction and/or disturbance of nests and eggs. These measures could include the completion of surveys for active nests and eggs and the subsequent marking of these locations. These locations should be made known to all employees, and a buffer zone should be implemented around the nest to avoid disturbing it.
  - Section 6.7.2.3 of the Supplemental Report makes reference to the need to develop and implement an environmental protection plan that would minimize and mitigate potential effects of accidents and malfunctions on wildlife and wildlife habitat. Environment Canada concurs that this is a sound approach and recommends that this plan be developed as soon as possible (if it has not been already) and be submitted for review.
  - Table 6-3 "Environmental Effects Assessment Matrix: Soil Quality" of the Supplemental Report lists the removal and transport of previously containerized PCB wastes as a



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project activity. Environment Canada requests clarification regarding whether PCB contaminated soils will be transported off site this year.

- In Section 6.5.2.4 “Residual Environmental Effects, Water Quality” of the Supplemental Report, the definition of a significant impact to water quality is given as “...one of sufficient magnitude so as to alter the quantity or quality of water to a degree that will result in a significant impact on aquatic life as defined in the impact significance definitions for other related VECs.” Environment Canada requests further information regarding why a significant impact to water quality is tied to other related VECs. The water quality VEC should be able to stand alone and not be related to other VECs.
- The application notes that a more detailed spill contingency plan will be submitted by the site contractor. Environment Canada requests that this plan be submitted for review once available.
- The contact number for the Head of Enforcement for Environment Canada is (867) 669-4730. This number can be included in Table 1 “Contact List” of the Contingency Plan included with the application.

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](mailto:colette.meloche@ec.gc.ca).

Yours truly,

***Original signed by***

Colette Meloche  
Environmental Assessment / Contaminated Sites Specialist

cc: (Paula Pacholek, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)