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Department of Environment

Ministère de l'Environnement

December 23, 2009

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board

via Email to: licensing@nwb.nunavut.ca

RE: 3BM-ALT---- Department of National Defence – CFS Alert Project – New Application- Type “B”

Dear Phyllis:

The Department of Environment (DOE) has reviewed the water license application from Defense Construction Canada for CFS Alert Project. Based on the *Environmental Protection Act* and the *Wildlife Act*, DOE has the following comments and recommendations to make.

GENERAL

In their Supplementary Information Document, the proponent states: “Currently, sewage is untreated and is discharged to an outfall located some 250 meters from the receiving body, Parr Inlet, in an area that has a significant slope” (page 12, section 4.4:Sewage Treatment). It is DOE understands that discharging raw sewage into a water body may be a violation of Section 36(3) of the Fisheries Act. DOE therefore advises NWB to consult with Environment Canada, who have regulatory jurisdiction over Section 36 (3) of the Fisheries Act, about this matter.

1. SPILL CONTINGENCY PLAN:

Based on the Government of Nunavut *Spill Contingency Planning and Reporting Regulations* and *A Guide to the Spill Contingency Planning and Reporting Regulations*, the DOE has the following comments to make:

- In addition to a site map, a description of the site and the associated facility including the location, size and storage capacity is required as this is important for people who are unfamiliar with the area.
- The DOE, Environmental Protection Service (EPS) monitors the movement of hazardous wastes, from generators, carriers to receivers, through a tracking

document (Waste Manifest). A Waste Manifest must accompany all movements, and all parties must register with the EPS. There is no mention of this procedure in the spill plan.

Location of Hazardous Materials:

- Unless otherwise specified by the land use inspector or license -issuing agency, all hazardous materials should be removed from the site upon completion of the activity. All hazardous waste should be accompanied by hazardous waste manifests with the appropriate information (Generator number, carrier number, and receiver number).
- DOE monitors the movement of hazardous wastes, from generators, carriers to receivers of the wastes, through the use of a tracking document known as a Waste Manifest. A Waste Manifest must accompany all movements, and all parties must register with DOE by contacting Robert Eno at (867)975-7729 or reno@gov.nu.ca. This procedure should be stated in the spill plan.

Incineration

- The proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual chamber, controlled-air flow incinerator is recommended. Both the Government of Canada and the Government of the Nunavut are signatories to the *Canada-Wide Standards for Dioxins and Furans* and the *Canada-Wide Standard for Mercury Emissions*, and are required to implement them according to their respective jurisdictional responsibility. Installation of an incineration device capable of meeting the emission limits established under these standards is required. Compliance with the Standards shall be demonstrated with an initial stack test upon commission of the incinerator at site, the results of which shall be submitted to the Nunavut Impact Review Board, Environment Canada, and Government of Nunavut-Department of Environment. During the course of operations, the proponent shall make determined efforts to achieve compliance with the Canada-wide Standards for dioxins and furans and the Canada-wide Standard for mercury. Determined efforts shall include but not be limited to appropriate record management, including maintenance reports, operator training logs, and the submission of an annual report that outlines the efforts made to achieve compliance with the Standards.

2. WILDLIFE

The CFS Site is in Peary Caribou Range, and there will be potential caribou calving activities near the project site. The DOE recommends the proponent to follow instructions below if calving activities are observed.

- The period between May 15 and July 15 is the normal caribou calving season. The applicant is advised to suspend all operations, over-flights by aircraft at any

altitude of less than 610 meters above ground level, and the use of snowmobiles and ATV's (all-terrain vehicles) outside the immediate vicinity of the camp. In addition, all personnel should remain quietly in the camp when caribou are in the area.

- Aircraft activities have been shown to affect wildlife such as caribou, muskoxen and birds in behaviour, development and reproductive success as well as subject the wildlife to adverse weather conditions and accidental damage or injury. However, by raising flight altitudes, studies have shown that it will alleviate some of the negative effects. Therefore, DOE recommends that the following protection measures are taken to reduce aircraft disturbance on wildlife.
- For low level flights, aircraft activities should maintain a minimum altitude of 610 meters above ground level in places where there are occurrences of wildlife. In areas where there are observed large concentrations of birds, flight level is restricted to 1,000 meters vertical distance and 1,500 meters horizontal distance from the birds. As a good practice, it is recommended to avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.

Human-carnivores conflicts

It is likely that during operations the proponent will encounter polar bears, wolves, foxes or wolverines. The proponent is advised to minimize odors that potentially attract carnivores through timely camp housekeeping and bearproof storage of food and food waste. Should the proponent experience any interaction with carnivores, they are advised to contact the local Conservation Officer. All camp members should be fully aware and trained in the human - bear/ wolf/fox/wolverine encounter avoidance plans especially in avoidance of any feeding (advertently or inadvertently by leaving food out) of these species. The proponent must discourage food conditioning of all wildlife species, negative reinforcement is encouraged.

The proponent should take all possible measures to avoid wildlife encounters, specifically bears. These measures include use of an alarmed trip wire around the site perimeter and wildlife monitors. DOE requests that wildlife monitors working for the proponent carry shot guns and have cracker shells, rubber bullets, and bean bag rounds available to use as deterrents. The proponent should follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional Biologist or the Wildlife Manager indicated below for information and advice on measures which should be taken to minimize the possibility of bear-people conflicts.

Raptor Nesting Areas

Raptor nests occur throughout Nunavut, and most of the prospecting areas likely contain at least a few nest sites. The proponent should not to disturb nesting raptors from 15 April to 1 September by staying at least 1.5 km away from them when in transit by aircraft and by avoiding approaching them closely while on foot.

The following is a list of general precautions that must be considered when conducting prospecting activities near Peregrine Falcon, Gyrfalcon, and other raptor nests (most of these precautions will also apply to all nesting bird species):

- Disturbance is most harmful early in the nesting period (May and June for Peregrine Falcon and Gyrfalcon, similar for Rough-legged Hawk): raptors will attempt to maximize their chances of successfully raising young. If they decide early in the breeding period that their nest is at risk, they may abandon it. If nests are disturbed at this stage of nesting, there may not be sufficient time to renest. All disturbances to nests during the early part of the nesting cycle must be avoided (avoid nest sites from late May through to mid-July).
- Individuals show variability in their response to disturbance: Different birds will show different responses to varying levels of disturbance. This may result from the general health of the bird, weather conditions, previous life experiences, and adaptability. Therefore, treat all nest sites with equal precaution, regardless of the response of the bird. Do not disturb raptor nests during conditions of poor weather (rain, snow, high winds).

Approaching the nest site near the time of fledgling (where chicks fly away from the nest) often leads to premature nest departure: During the last few weeks of nesting, severe disturbance at the nest often causes young raptors to jump out of the nest. This can cause death from exposure, predation, starvation, or trauma from the fall itself. All activity within 100m of a nest site during the latter part of the nest stage (10-20 August for peregrine falcons in this region) must be avoided.

We thank NWB for giving us the opportunity to review and provide comments on the Defense Construction Canada's water license application. Please contact me if you have any further questions or comments.

Yours sincerely,

Original signed by

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