



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Eastern Arctic Area
P.O. Box 358
Iqaluit, NU X0A 0H0

Secteur de l'Arctique de l'est
Boîte postale 358
Iqaluit, NU X0A 0H0

May 9, 2005

Your file *Votre référence*
NWB2PEL

Our file *Notre référence*
NU-05-0020

Susie Ikkutisluk
P.O. Box 119
Gjoa Haven, NU.
X0B 1J0

Via electronic mail to:
licensingtrainee@nwb.nunavut.ca

Dear Ms. Ikkutisluk:

Subject: Proposed works or undertakings are not in or near fish habitat.

Fisheries and Oceans Canada (DFO) received the proposal on April 27, 2005, concerning the application for a Type "B" water license BHP Billiton Diamonds Inc. To expedite future correspondence or inquiries, please refer to your referral title and file numbers when you contact us.

| | |
|--------------------|--|
| Referral File No.: | 05-HCAA-CA7-000-000020 |
| Habitat File No.: | NU-05-0020 |
| Referral Title: | Exploration Project and Camp, Kugaaruk Area |

It is our understanding that your proposal consists of:

- *Exploration activities – shovel and rock hammer, drilling.*
- *Mobilization of a camp holding approximately 18 people.*
- *Water usage will be restricted to human consumption (3500 litres/day) and drilling (18 litres/minute).*
- *Water intakes will be equipped with mesh screens to prevent entrapment of fish.*

as outlined in the following plans:

- *NWB Water Licence Application Form.*
- *NWB Exploration/Remote Camp Supplementary Questionnaire.*
- *Application for land use permit and attachment. April, 2005.*

We have reviewed the proposal under the habitat protection provisions of the *Fisheries Act*. The measures described in the plans are not adequate to protect fish and fish habitat. Therefore, please ensure that the following additional measures are incorporated into the plans.

Operations in or near water may result in the harmful alteration, disruption or destruction of fish habitat, which is prohibited under Section 35 of the *Fisheries Act*. The following mitigation measures, along with mitigation measures indicated in the project proposal, are intended to prevent any potentially harmful impacts to fish and fish habitat.

- If artesian flow is encountered, drill holes should be plugged and permanently sealed upon completion of the project.

- All disturbed areas should be stabilized and re-vegetated as required, upon completion of work, and restored to a pre-disturbed state.
- No material should be left on the ice when there is potential for that material to enter the water (i.e. spring break-up).
- If the operations require water in sufficient volume that the source water body may be drawn down, details should be submitted (volume required, size of water body, fish species etc.) to DFO for review. DFO strongly discourages the use of streams as a water source.

Extraction of water via intake from any water body is prohibited under Section 30 of the *Fisheries Act* unless the entrance of the intake is properly screened to prevent the entrainment of fish. Refer to the *Freshwater Intake End-of-Pipe Fish Screen Guideline* (DFO 1995), which is available upon request. No harm should come to fish during water removal as long as the following mitigation measures are implemented:

- Ensure that the holes in the screen are small enough that no fish of any size can pass through the screen and into the intake.
- The rate of water withdrawal should be such that fish do not become impinged on the screen.
- Make certain that the fish guard or screen is properly maintained, in a good state of repair, and is not removable except for renewal or repair.
- During the time in which a renewal or repair is being conducted, the entrance of the water intake should be closed in order to prevent the passage of fish into the intake.

By implementing these additional measures, it is our opinion that the proposed works and undertakings will not likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat, which is prohibited unless authorized by DFO. These are recommendations to ensure that the proposed works will likely not result in a HADD of fish habitat. Therefore a subsection 35(2) authorization is not necessary.

Subsection 35(1) of the *Fisheries Act* could be contravened if a HADD of fish habitat results due to any change in the proposed plan or from failure to properly implement these additional measures. Subsection 35(1) states, "*no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.*"

This letter of advice does not permit the deposit of a deleterious substance into waters frequented by fish nor does it release the proponent from the responsibility to obtain any other federal (for example, the *Navigable Waters Protection Act*), provincial or municipal approvals.

Depositing deleterious substances into fish bearing waters is prohibited as stated under Subsection 36(3) of the *Fisheries Act*. The following are additional measures to mitigate habitat disturbance or loss as well as the deposition of deleterious substances.

- Sediment and erosion control measures should be implemented prior to commencement of, and maintained during, the work to prevent sediment entry into the water.
- Drill cuttings should be disposed of in a sump such that they do not enter any water body. The use of biodegradable, salt free drill additives is encouraged over non-biodegradable types.
- For any drilling activities, the proponent should ensure that the contractor undertaking the drill is prepared with a contingency plan covering the detection, control and handling of any inadvertent drilling fluid migration that may enter a water body.

- Sediments from water used in the drilling process should be filtered out before the water is discharged onto the surrounding landscape.
- All wastes, drill cuttings, sewage containments and fuel caches should be located well away from the normal high water mark of any water body. Impermeable spill mats or plastic sheets as well as efficient containment berms should be incorporated into these caches to ensure that contaminants do not enter water bodies.
- All activities, including maintenance procedures and vehicular refuelling, should be controlled to prevent the entry of petroleum products, sediment, debris, rubble, or other deleterious substances into the water. Impermeable spill mats, drip pans or other measures to prevent ground or ice contamination should also be used when refuelling equipment on site. Ensure that refuelling activities are conducted well away from the normal high water mark of any water body.
- The proponent should have available an extra fuel storage container equal to or bigger than the size of the largest fuel container. This container can be used to replace any existing container showing signs of leakage. Check for container leaks on a daily basis and prepare any visible leaks immediately. Ensure that spill kits are readily available at all times.
- All spills of oil, fuel, or other deleterious material should be reported immediately to the 24-Hour Spill Line at (867) 920-8130.

If these plans have changed since the time of submission, the advice in this letter may no longer apply and the proponent should consult with us to determine if further review is required.

We request that we be notified at least 10 working days before the start of work and that a copy of this letter be kept on site while work is in progress.

If you have any questions concerning the above, or if my understanding of the proposal is either incorrect, incomplete, or if there are changes to the proposed works or undertakings, please contact me directly by telephone at (867) 979-8016 or by fax at (867) 979-8039.

Yours sincerely,

Original signed by:

Rich Rudolph
Habitat Management Biologist
Fisheries and Oceans Canada – Eastern Arctic Area

c.c.: Jeremy Howe – BHP Billiton Diamonds Inc.
Gladys Joudrey – Nunavut Impact Review Board
Keith Pelley – Fisheries and Oceans Canada – Conservation and Protection