

The decision of the Board in this case is 12.4.4 (a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;

Reasons for Decision:

NIRB's decision is based on specific considerations that reflect the primary objectives of the Land Claims Agreement. Our considerations in making this decision included:

- the potential impact of further contamination of the ecosystem from PCB's, heavy metals, petroleum products or other materials entering the marine environment and subsequently into the food chain from failure of the designed storage and containment structures;
- the adequacy of plans for the clean up, storage and removal of contaminated soils, spills and to prevent the further migration of PCB's and petroleum products;
- the adequacy of plans to control runoff and drainage control within and around the facility;
- the potential to contaminate clean areas from wind blown debris or contaminated machinery;
- the potential to impact fish or fish habitat;
- the impact and disturbance to nesting migratory birds and their habitat along coastal areas due to activities;
- the potential to impact on traditional hunting and fishing activities;
- the potential to impact permafrost causing long-term adverse effects such as differential settlement, terrain instability and erosion;
- the potential impact from disturbance to vegetation;
- the potential impacts to the terrain from heavy equipment and vehicles which may cause rutting and erosion;
- potential impact of quarrying activities to the ecosystem;
- the potential impact to the ecosystem from accidental spillage of petroleum products;
- the storage and disposal of fuel, garbage, sewage, and grey water, and the impact of these on the ecosystem.

Terms and Conditions:

- That the terms and conditions attached to this screening report will apply

Storage and Management of Hazardous Materials

1. The Permittee shall not mix or dilute any hazardous materials with any substance or divide into small or quantities to avoid meeting the definition of hazardous waste.
2. The Permittee shall store hazardous material in their original containers, where possible, or in containers manufactured for the purpose of storing hazardous waste. The containers must be sound, sealable and not damaged or leaking.
3. The Permittee shall maintain a record of the type and amount of waste in storage.
4. The Permittee shall label all containers according to the requirements of the Work Site Hazardous Materials Information System (WHMIS) of the Safety Act or the relevant Transportation Authority, if transportation is planned.

5. The Permittee shall ensure that drainage into and from the site is controlled to prevent spills and leaks from leaving the site and to prevent run off from entering the site.
6. The Permittee shall segregate incompatible wastes by chemical compatibility to ensure safety of the public and workers and facility.
7. The Permittee shall ensure the storage facilities are a secured area with controlled access. Only persons authorized to enter and trained in waste handling procedures should have access to the storage site.
8. The Permittee shall perform regular inspections and provide reports to the authorizing agency.
9. The Permittee shall place containers so that each container can be inspected for signs of leaks and deterioration.
10. The Permittee shall remove any leaking and deteriorated containers and transfer their contents to a sound container.
11. The Permittee shall have emergency response equipment appropriate for the hazardous waste stored on site.
12. The Permittee shall ensure that all hazardous wastes are stored in a proper manner and transported from the site in accordance with the *Transportation of Dangerous Goods Act and Regulations*.
13. The Permittee shall ensure that the storage facility is registered if the site is to be used for long term storage (period of 180 days or more), and quantities to be stored exceed the quantities set out for individual waste classes or if the aggregate quantity for all classes of waste exceed 5000kg/L.

Fuel Transport and Storage

14. The deposition of deleterious substances into water bodies frequented by fish is prohibited under Section 36 of the *Fisheries Act* unless authorized by regulation. The Permittee shall therefore ensure that any deleterious chemicals, fuel or wastes associated with the proposed project do not enter such waters.
15. The Permittee shall ensure that the transportation of fuel shall be done in compliance with the *Transportation of Dangerous Goods Act and Regulations* requirements.
16. The Permittee shall ensure that fuel storage containers are not located within thirty-one (31) metres of the ordinary high water mark of any body of water unless authorized by the Minister.
17. The Permittee shall ensure that all fuel is kept in double walled containers. All valves on fuel tanks should have receptacles placed beneath them to catch any leaked fuel.
18. The Permittee shall inspect all fuel containers for leaks daily and shall report and repair all leaks immediately.
19. The Permittee shall construct a dyke around each stationary fuel container or group of stationary fuel containers where one container has a capacity exceeding 4000 litres.
20. The volume of the dyked area shall be 10% greater than the capacity of the largest fuel containment placed therein.
21. The dyke and area enclosed by the dyke shall be lined with a type of plastic film liner approved by the Engineer.

22. The Permittee shall ensure that the dyke and area enclosed by the dyke shall be impermeable to petroleum products at all times.
23. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.
24. The Permittee shall have emergency response and spill contingency plans for fuel transfer and storage as well as any other hazardous liquids at the site in place prior to the commencement of the land use activity.
25. The Permittee shall immediately report all spills of petroleum and hazardous chemicals to the Twenty-four (24) hour spill report line (867) 975-4295.
26. The Permittee shall ensure that vehicle and equipment maintenance and servicing shall be conducted only in designated areas and shall implement special procedures to manage fluids, waste and contain potential spills.
27. The Permittee should ensure that all ethylene glycol (antifreeze) is managed in accordance with the *Environmental Protection Act (EPA)* of NWT due to its high potential to attract wildlife.
28. The Permittee shall ensure that any chemicals, fuels or wastes associated with the project do not spread to the surrounding lands or enter into any water body.
29. The Permittee shall ensure that a land use inspector approves the containment of the contaminated soil.

Waste Disposal

30. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.
31. The Permittee shall ensure that any areas designated for waste disposal shall not be located within thirty (30) metres of the ordinary high water mark of any body of water, unless otherwise authorized.
32. The Permittee shall ensure that all waste management sites are mapped and inventoried.
33. The Permittee shall recover and recycle material wherever practical.
34. The Permittee shall construct, operate, maintain and monitor the containment areas to ensure that there is no seepage of leachate into natural drainage and waterways and subsequently into the marine environment. Any seepage that occurs should be collected and treated as hazardous material.
35. The Permittee shall regrade the landfills to match the contours of the land.
36. The Permittee shall treat and dispose of all lead and PCB contaminated paints as hazardous materials.
37. The Permittee shall keep all garbage in a covered metal container until disposed of in an approved disposal site.
38. The Permittee shall incinerate all combustible and food wastes in a forced air fuel-fired incinerator daily to eliminate potential for wildlife problems created by the attraction of wildlife to garbage.
39. The Permittee shall ensure that all ash and non-combustible non-hazardous wastes are buried in an approved landfill.

40. The Permittee shall deposit all sewage and greywater discharged in a sump ensuring drainage is away from any waterbody.
41. The Permittee shall backfill and recountour all sumps to mach the natural environment prior to the expiry date of the permit.

Environmental

42. The Permittee shall ensure that all hazardous material management areas shall be located a minimum distance of one hundred (100) metres from the nearest water body.
43. The Permittee shall implement procedures to screen CEPA soils to avoid / minimize the spreading of contaminated dust.
44. The Permittee shall control all movement of heavy machinery, vehicles and equipment within the hazardous material management area to prevent the dispersion of potentially hazardous dust and materials into the environment.
45. The Permittee shall clean (decontaminate) all heavy machinery and equipment prior to movement to another area. All fluids (including water) resulting from the cleaning shall be treated as hazardous waste and shall be containerized and disposed of as per the regulations.
46. The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
47. The Permittee shall suspend operation if rutting occurs.
48. The Permittee shall avoid causing soil damage that disturbs natural drainage patterns or expose permafrost. These areas shall be repaired immediately.
49. The Permittee shall insulate the ground surface beneath all structures and facilities, by constructing gravel pads or other approved methods to prevent any vegetation present from being removed and to prevent the degradation of permafrost causing ground settling and/or erosion.
50. The Permittee shall leave a strip of undisturbed vegetation at least thirty (30) metres width between roads, quarry or navigable waterways.
51. The Permittee shall commence and foster revegetation on all parts of the land used. Methods should include scarification and transplanting of native vegetation from other areas.
52. The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation.

Quarry

53. The Permittee shall not remove any material from below the ordinary high water mark of any stream.
54. The Permittee shall slope the sides of the excavations and embankments except in solid rock to 2:1 (two horizontal, one vertical).
55. The Permittee may only excavate and stockpile in areas designated.

Wildlife

56. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this land use operation.

57. The Permittee shall use the latest bear detection and deterrent techniques to minimize man-bear interactions. The Permittee is strongly urged to contact DSD wildlife officers regarding safety in polar bear country literature and training.
58. The Permittee shall ensure that pilots maintain an altitude of at least 300m above ground or water when passing over areas where birds are concentrated. Raptor nesting areas should be avoided at all times.
59. The Permittee shall ensure that land use activities avoid environmentally sensitive areas (denning, nesting areas) by a minimum of 250metres.
60. The Permittee shall make all efforts to minimize harassment to wildlife including conduction operations in sensitive areas during critical time periods (denning, nesting, staging etc.).

Stream Crossings

61. The harmful alteration, disruption or destruction of fish habitat is prohibited under Section 35 of the *Fisheries Act*. No construction or disturbance of any stream/lake bed or banks of any definable watercourse is permitted unless authorized by DFO.
62. The Permittee shall limit instream activity. Machinery is not permitted to travel up the streambed and fording of the stream be kept to a minimum.
63. The Permittee shall ensure that stream crossings are located to minimize approach grades.
64. The Permittee shall ensure that bank disturbance is to be avoided.
65. The Permittee shall stabilize approaches during construction and upon completion of the project to control run off, erosion and subsequent siltation of the stream. Methods to control erosion may include revegetation of slopes, drainage ditches and sediment traps.
66. The Permittee shall not deposit or permit the deposit of sediment into any waterbody.
67. The Permittee shall ensure that all equipment is well cleaned and free from contaminated materials, oil and grease.
68. The Permittee shall not conduct mechanized clearing within thirty (30) metres of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.
69. The Permittee shall ensure that debris from clearing activities will not be dragged or skidded across water courses, and all slash and debris is to be disposed above the high water mark so that it does not enter the water
70. The Permittee shall control siltation from construction activities with geotextile silt barriers. These barriers should be installed to sufficiently isolate the abutment construction and associated fill activities for the stream flow while allowing free flow of the stream main channel. These barriers must also be removed in a manner that does not result in the release of trapped sediments.
71. The Permittee shall ensure that culverts are removed upon abandonment of roadways.

Camp

72. The Permittee shall not erect camps or store material on the surface ice of lakes or streams.
73. The Permittee shall locate all infrastructure facilities on gravel, or other durable land.
74. The Permittee shall keep the land use area clean and tidy at all times.

55. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.
56. The Permittee shall plug or cap all bore holes and cut off any drill casings that remain above ground to ground level upon abandonment of the operation.

Other Recommendations

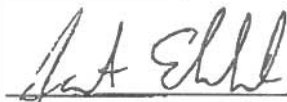
1. NIRB would like to encourage the proponent to hire local people and services, to the extent possible.
2. NIRB strongly advises proponents to consult with local residents regarding their activities in the region, and do community consultation on the project to keep the communities informed.
3. Any amendment requests deemed by NIRB to be outside the original scope of the project will be considered a new project.
4. The Environmental Protection Branch (DOE), Department of Fisheries and Oceans (DFO), Nunavut Impact Review Board (NIRB), and the Nunavut Water Board (NWB) should be advised of any material changes to plans or operating conditions associated with the project.

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated Feb 26/04 at Cambridge Bay, NU.



Albert Ehloak, A/Chairperson



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MUNICIPALITY OF QIKIQTARJUAQ
P. O. Box 4
Qikiqtarjuaq, NU X0A 0B0
Tel. (867) 927-8832 Fax (867) 927-8120

February 13, 2004

Jorgen Komak
Environmental Assessment Officer
Nunavut Impact Review board
P.O. Box 2379
Cambridge Bay, NU X0B 0C0

Dear Mr. Komak:

Re: NIRE # 04DN001 – Proposed Site Remediation and Quarry Permit
Proponent: UME Engineering Ltd.

This letter will confirm that Council for the Municipality of Qikitarjuaq reviewed this application at its February 12, 2004 regular meeting and passed a resolution in support of the proposal.

Fax (867) 927-8120

Yours truly,

Jim Kincaid, SAO

Document3

COMMENT FORM FOR NIRB SCREENINGS

The Nunavut Impact Review Board has a mandate to protect the integrity of the ecosystem for the existing and future residents of Nunavut. In order to assess the environmental and socio-economic impacts of the project proposals, NIRB would like to hear your concerns, comments and suggestions about the following project application:

Project Title: <u>Site Remediation and Quarry Permit</u>	
Proponent: <u>UMA Engineering Ltd.</u>	
Location: <u>DYE-M, Cape Dyer, NU</u>	
Comments Due By: _____	NIRB #: <u>04DN001</u>

Indicate your concerns about the project proposal below:

<input checked="" type="checkbox"/> No concerns	<input type="checkbox"/> traditional uses of land
<input type="checkbox"/> water quality	<input type="checkbox"/> Inuit harvesting activities
<input type="checkbox"/> terrain	<input type="checkbox"/> community involvement and consultation
<input type="checkbox"/> air quality	<input type="checkbox"/> local development in the area
<input type="checkbox"/> wildlife and their habitat	<input type="checkbox"/> tourism in the area
<input type="checkbox"/> marine mammals and their habitat	<input type="checkbox"/> human health issues
<input type="checkbox"/> birds and their habitat	<input type="checkbox"/> other: _____
<input type="checkbox"/> fish and their habitat	
<input type="checkbox"/> heritage resources in area	

Please describe the concerns indicated above:

Do you have any suggestions or recommendations for this application?

Do you support the project proposal? Yes ☒ No ☐ Any additional comments?

Name of person commenting: Jennifer of UMA Engineering

Position: Manager Organization: Nat'lak HTP

Signature: [Signature] Date: February 12, 2004

Return for this appl.



ARCHAEOLOGICAL AND PALAEOONTOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS

BACKGROUND

Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

Palaeontology

Under the Nunavut Act¹, the federal government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*², it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

"archaeological site" means a place where an archaeological artifact is found.

¹ s. 51(1)

² P.C. 2001-1111 14 June, 2001

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

"palaeontological site" means a site where a fossil is found.

"fossil" includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2033 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.

9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:

- a) survey
- b) inventory and documentation of the archaeological or palaeontological resources of the land use area
- c) assessment of potential for damage to archaeological or palaeontological sites
- d) mitigation
- e) marking boundaries of archaeological or palaeontological sites
- f) site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.

FEB-17-2004 TUE 03:47 PM DFO IQUALUIT NT

FAX NO. 867 979 8039

P. 01/03

Fisheries and Oceans
Canada
Eastern Arctic Region
Fish Habitat Management
P.O. Box 358
Igloodit, Nunavut
X0A 0H0

Pêches et Océans
Canada

Your file Votre dossier
NJR13 (M1)N001
Our file Notre dossier
NU-03-0165

February 17, 2004

Scott Hamilton
DEW Line Clean Up Environmental Officer

Defence Construction Canada
Place de Ville, Tower B
112 Kent Street, 17th Floor
Ottawa, ON, K1A 0K3
Fax (613) 998-1061

Dear Mr. Hamilton

RE: Site Remediation and Quarry Pit Permit for the Cape Dyer (DYE-M) DEW Line Site, Nunavut

This letter is to advise that Fisheries and Oceans Canada, Fish Habitat Management (DFO-FHM) received the project proposal information, submitted by the Nunavut Impact Review Board, for the clean up of the DYE-M DEW Line Site located at Cape Dyer, Nunavut. DFO-FHM's assessment takes into consideration primarily fish and fish habitat related concerns. Your proposal has been assigned the following file number and name:

NU-03-0165 CLEANUP OF DYE-M DEW LINE SITE, CAPE DYER, NUNAVUT

Please refer to this number on your correspondence or inquiries.

This letter is to advise that DFO-FHM has reviewed the correspondence for the proposed work for impacts to fish and fish habitat. It is my understanding from the information submitted to this office, that:

- The proposed duration of the cleanup program will be July 2004 to October 2011.
- The intent of the cleanup program is to remove all contaminated sediment and debris fields and restore the site back to its pre-disturbed state.
- The three main areas where the proposed works require compliance with the *Fisheries Act* are:
 - the Beach Landfill - North and associated debris areas
 - the Construction Camp Debris Area - South
 - the Lower Camp Landfill - West
- It is estimated that 664,000m³ of gravel will be used from local borrow areas as landfill material.
- No blasting or use of explosives in and around waters frequented by fish will be required
- More detailed site specific work and mitigation plans will be submitted to DFO-FHM for review prior to the commencement of the proposed works.

In addition to those measures set out in the project proposal, the following measures are intended to prevent or avoid any potentially harmful effect to fish habitat:

Canada

- All instream work should be completed *in the dry* by de-watering the work area and diverting and/or pumping flows around coffer dams placed at the limits of the work area and should:
 - Maintain existing stream flows downstream of the de-watered work area without interruption, during all stages of the work. There should be no increase in water levels upstream of the de-watered work area;
 - Remove fish from the work area prior to de-watering and release alive immediately downstream;
 - Place flow dissipaters and/or filter bags, or equivalent, at water discharge points to prevent erosion and sediment release;
 - Pump sediment laden dewatering discharge well away from the watercourse and allow to settle and/or filter through the riparian vegetation before re-entering the watercourse downstream of the construction area;
 - Silt or debris that has accumulated around temporary coffer dams should be removed prior to their withdrawal;
 - Stabilize the work area against the impacts of high flow events at the end of each work day; and
 - Remove all sandbags from the watercourse upon completion of the project.
- Sediment and erosion control measures (i.e. silt curtain etc.) should be installed prior to work and be maintained during the work phase, to prevent entry of silt, sediment or sediment-laden water into the watercourse.
 - All sediment and erosion control measures shall be inspected daily to ensure that they are functioning properly and are maintained and/or upgraded as required.
 - If the sediment and erosion control measures are not functioning properly, no further work shall occur until the sediment and/or erosion problem is addressed.
 - All disturbed areas of the work site shall be stabilized immediately and revegetated as soon as conditions allow.
 - Sediment and erosion control measures should be left in place until all areas of the work site have been stabilized.
- An in-water silt/sediment curtain should be installed around the perimeter of the work area prior to and during any dredging to prevent resuspended sediment from spreading to adjacent areas. The silt curtain should be left in place until all the sediment has settled.
- Dredged and excavated material should be disposed on land above the high water level and suitably contained/stabilized to prevent the dredged material from re-entering the water.
- Machinery is to work from above the high water mark and should not work within the lake.
- The works should be conducted using land-based machinery or equipment operating from the upland and not within the stream channel.
- Only clean material free of fine particles should be placed in the water. Materials to be used for the project should not be taken from the shoreline or below the high water level of any waterbody.
- All materials, construction/excavation wastes and equipment used for the purpose of site preparation and project completion should be operated and stored in a manner that prevents any deleterious substance (e.g. petroleum products, lubricants, concrete or concrete leachate, silt, etc.) from entering the water.
 - Any stockpiled materials should be stored and stabilized away from the water.
 - Vehicle and equipment re-fuelling and maintenance should be conducted away from the water.

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FAX NO. 867 979 8039

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NIRB NU 03-0165

Page 3 of 3

- Any part of equipment entering the water should be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substances from entering the water.
- All wastes, sewage containments and fuel caches should be located at an appropriate distance above the normal high water mark of any water body, and be sufficiently bermed or otherwise contained to ensure that these substances do not enter 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 plans for proposed stream crossings or work conducted below the high water mark adjacent to the banks of marine areas, streams and lakes require prior approval by DFO-TIM.
- Water samples for turbidity and total suspended solids (TSS) should be taken on a regular basis during clean-up activities and as part of a post-monitoring program. Results of the water analyses should be provided to DFO on an annual basis.
- All spills of oil, fuel, or other deleterious material should be reported immediately to the 24-Hour Spill Line at (867) 920-8130.

If the proposed work is carried out as described in the plans provided to DFO-TIM and if the additional mitigation measures specified above are implemented, the proposed work will not be considered as contravening Subsection 35(1) of the *Fisheries Act* which reads:

"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."

Therefore, an authorization under Subsection 35(2) of the *Fisheries Act* will not be necessary. If a harmful alteration, disruption or destruction of fish habitat and/or the deposition of deleterious substances into fish bearing waters occurs as a result of a change in the plans for the proposed works or failure to implement the additional mitigation measures specified above, prosecution under Subsection 35(1) and/or Subsection 36(3) of the *Fisheries Act* may be initiated.

Please note that this letter of advice does not release the proponent of the responsibility for obtaining any other permits that may be required under federal, provincial, territorial or municipal legislation.

Please note that this letter of advice will apply for the period of the current lease. If you have any questions concerning the mitigation measures or should there be any changes to the proposed work, please contact me at (867) 979-8011 or by fax at (867) 979-8039.


Martyn Curtis
Fish Habitat Biologist
Fisheries & Oceans Canada - Eastern Arctic Area

c.c. Jorgen Koinak, NIRB, fax (867) 983-2574
Eva Schulz, UMA Engineering, fax (403) 270-0399

FACSIMILE MESSAGE**Environment Environnement
Canada Canada****Environmental Protection Branch
Qimugluk Building 979 P.O. Box 1870
Iqaluit, NU X0A 0H0****DATE:** March 2, 2004**TO:** Jorgen Komak
Environmental Assessment Officer
Nunavut Impact Review Board**FROM:** Colette Meloche
Environmental Assessment Specialist
Environment Canada**PHONE:** 867-883-2593**PHONE:** 867-975-4639**FAX:** 867-883-2594**FAX:** 867-975-4645**Number of pages including cover:** 4**Subject:** NIRB 04DN001 - UME Engineering Ltd. - Site Remediation, DYE-M, Cape Dyer DEW Line Site**MESSAGE:**

Hi Jorgen,

Attached are Environment Canada's comments on the above mentioned application. I want to apologize again for the lateness of these comments. I hope they can still be of some use to you. If you have any questions or concerns, please don't hesitate to contact me. Thank-you!

Sincerely,

Colette Meloche
Environmental Assessment Specialist



Environment
Canada

Environnement
Canada

Environmental Protection Branch
Qimugruk Building 989 P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4639
Fax: (867) 975-4645

March 2, 2004

Our file: 4105 006 154

Jorgen Komak
Nunavut Impact Review Board
P.O. Box 2379
Cambridge Bay, NU X0B 0C0
Tel: (867) 983-2593
Fax: (867) 983-2594

Via Facsimile

Phyllis Beaulieu
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjos Haven, NU X0B 1J0
Tel: (867) 360-6338
Fax: (867) 360-6369

Via Email at licensing@nwh.nunavut.ca

RE: NIRB 04DN001 / NWB5DYE – UME Engineering Ltd. – Site Remediation, DYE-M Cape Dyer DEW Line Site

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 Defense Construction Canada and the Department of National Defense, has applied for a water license application, land use permit, and quarry permit for the clean-up of the DYE-M Cape Dyer DEW Line site. The DYE M DEW Line site is located on the easternmost point of Baffin Island. Existing facilities no longer required for the North Warning System will be demolished, contaminated soils will be excavated and properly disposed of, new landfills will be created to contain non-hazardous wastes, and existing landfills will be remediated. The duration of the work is anticipated to be approximately 4 months, not including winter shutdown, over a period of eight (8) years.

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

Landfills

- Environment Canada requests additional information regarding why soils exceeding Tier I contamination criteria, but not classified as Tier II contaminated soils will be disposed of in the Non-hazardous Landfill rather than the Tier II Disposal Facility. According to the application, Tier I Soils are those soils containing concentrations of lead from 200 – 500 ppm, and PCBs from 1 less than 5 ppm. Soils with concentrations of lead and PCBs higher than these amounts are classified as Tier II. Therefore, EC requests clarification regarding why soils exceeding Tier I contamination criteria, but not classified as Tier II contaminated soils will be treated as non-hazardous.
- The application states that although leachate was identified in the West and Central lobes of the West Landfill, only a portion of the west lobe is to be excavated. Environment Canada

Canada



requests that justification be submitted outlining why only this portion of the landfill is to be excavated.

- Contaminated soils have been identified at the Crossroads and Foundation Landfills. However, the application states that these landfills are to be graded and closed rather than excavated. Environment Canada recommends that the contaminated soils be removed from the landfills and remediated prior to the landfill's closure.
- Environment Canada recommends that, similar to the procedure in place for asbestos disposal, the location of the creosote treated lumber within the Non-Hazardous Landfill be recorded on the "as-built" drawings.
- If not already included in the plans, EC recommends that the any new perimeter collection system ditches be lined with an impermeable liner to prevent further soil and groundwater contamination.
- The application makes reference to the presence of drainage collection ditches within the site boundaries. Environment Canada recommends that prior to their closure, the proponent ensure that the sediment within the ditches is not contaminated. If testing shows contamination, EC recommends that the proponent ensure the proper treatment and/or disposal of the soil according to the level of contamination.
- Environment Canada requests that the height of the perimeter containment berms in the non-hazardous waste landfill and the Tier II Soil Disposal facility be submitted.

Tier II Disposal Facility

- Environment Canada requests information regarding the thickness of the cover material that will be used on the Tier II Soil Disposal Facility.

Hydrocarbon Soil Treatment Facility

- Environment Canada recommends that monitoring wells be installed at the Hydrocarbon Soil Treatment Facility to ensure that contamination of the groundwater does not occur.

Sewage Treatment

- Environment Canada requests information regarding the criteria that will be met during the monitoring of the discharge from the sewage lagoon. The proponent is reminded of the "Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments" that were published by EC, and it is recommended that these guidelines be mirrored in the water license.
- Environment Canada requests information regarding the timing of the discharge from the sewage lagoon, and the location of the final water quality monitoring station.
- Environment Canada recommends that the proponent maintain a minimum of a 1 metre freeboard in the sewage lagoon at all times.
- Environment Canada recommends that the location of the sewage lagoon be indicated with appropriate signage.
- Environment Canada recommends that the proponent develop an operations and maintenance manual for the lagoon to help prevent the deposition of deleterious substances into the environment.
- Environment Canada requests information regarding the abandonment and restoration plans for the sewage treatment facility.

Spill Contingency

- If not currently in place, EC recommends that the proponent develop and implement a comprehensive spill contingency plan for the site. This should include a clear path of response in the event of a spill, including marine spills, and should clearly indicate that all spills are to be documented and reported to the 24 hour Spill Line at (867) 920-8130. The spill contingency plan should also address the location of all spill response equipment, including the name and location of where equipment not kept on site can be obtained.
- Environment Canada commends the proponent for the use of secondary containment with impervious liners for the storage of fuel tanks. Additionally, EC also recommends the use of

secondary contaminant, such as self-supporting insta-berms, when storing barreled fuel on location. Additionally, fuel caches shall be located above the high water mark of any water body, and in such a manner as to prevent the contents from entering any water body frequented by fish.

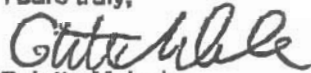
- Environment Canada recommends the use of drip pans, or other similar preventative measure, when refueling equipment on site.

General

- Information regarding the watercourse that is to be diverted. Specifically, EC is interested in methods that will be utilized to prevent sedimentation during the diversion.
- The Project Description makes reference to "ground preparation" which may be required to facilitate treatment options. Environment Canada requires additional information regarding where any overburden which is removed will be stored and what measures will be taken to prevent sedimentation and erosion from occurring.
- Environment Canada requests information regarding how materials painted with PCB amended paints below CEPA criteria will be disposed of.
- Once available, EC would like further information regarding the proponent's proposed updates to the landfill monitoring program which was originally agreed upon in the DND/NTI agreement.
- Environment Canada requests information regarding the disposal and/or treatment of the water used to flush and clean the fuel storage tanks and pipes prior to their demolition.
- Environment Canada recommends the use of an approved incinerator for the disposal of combustible wastes.
- The Project Description included with the application identifies the "expert" federal departments that have been contacted during the development of the project definition. Environment Canada recommends that the proponent contact Health Canada, as they may also be able to provide input to the project.
- Environment Canada recommends that the proponent take measures to prevent erosion and sedimentation during site grading and excavation, especially near the intertidal zone.
- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- In order to help prevent the degradation of the permafrost regime, EC recommends that the proponent any excavated materials be stored on gravel pads.
- The proponent shall not deposit, nor permit the deposit of sediment into any water body. It is recommended that an undisturbed buffer zone of at least 100 metres be maintained between any proposed quarry operations and the normal high water mark of any water body.

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)