



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU  
X0A 0H0

NWB File: 3BM-PEL0712  
CIDMS #: 384511

Jan 14, 2010

Richard Dwyer  
License Administrator  
P.O. Box 119  
Gjoa Haven, NU  
X0A 0H0

**Re: 3BM-PEL0712 – Operation and Maintenance Manuals and Spill  
Contingency Plan - Hamlet of Kugaaruk**

Please be advised that Indian and Northern Affairs Canada (INAC) have completed a review of 3BM-PEL0712 Operation and Maintenance Manuals and Spill Contingency Plan for Hamlet of Kugaaruk. The NWB circulated the required documents for comments, on December 10, 2009. All associated documents related to this license posted on the NWB ftp site under 3BM-PEL0712 were included in my review (See attached Technical Review Memo).

Should you have any questions or comments, please do not hesitate to contact me at (867) 979-4282 or by email at [Ian.Parsons@inac.gc.ca](mailto:Ian.Parsons@inac.gc.ca).

Sincerely,

*Original signed by*

Ian Parsons  
Water Resources Technician

Cc. Lou-Ann Cornacchio, Manager of Water Resources – Indian and Northern  
Affairs Canada, Nunavut Regional Office



## **Technical Review Memorandum**

To: Richard Dwyer – License Administrator, NWB  
Peter Kusugak – Field Operations Manager, INAC  
Merrill Boudreau – Senior Administrative Officer, Hamlet of Kugaaruk.

From: Ian Parsons – Water Resources Technician, Indian & Northern Affairs Canada.

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**Re: 3BM-PEL0712 – Operation and Maintenance Manuals and Spill  
Contingency Plan - Hamlet of Kugaaruk**

### **Existing Water License # 3BM-PEL0712**

#### **Background**

The Nunavut Water Board (NWB) approved for the Hamlet of Kugaaruk a renewal of their water license, water license # 3BM-PEL0712 on Sept 7, 2007.

The NWB has stipulated in the water license that the Hamlet of Kugaaruk submit the following operational plans to fulfill the requirements of the water license:

- i. *Water Distribution Facility Operation and Maintenance (O&M) Plan;*
- ii. *Sewage Treatment Facility Operation and Maintenance (O&M) Plan;*
- iii. *Solid Waste Facility Operation and Maintenance (O&M) Plan;*
- iv. *Environmental Emergency Contingency Plan For Water, Sewage and Solid Waste Operations in the Hamlet of Kugaaruk, Nunavut; and the*
- v. *Monitoring Program Quality Assurance/Quality Control Plan*

The sewage and solid waste operational plans were submitted based on “*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories, Doughty and Kent 1996*” (*The Guidelines*).

The plans submitted by Dillion Consulting on behalf of the Hamlet of Kugaaruk, contained most of the required documentation. However, the following information was not provided in the plans.



## Recommendations/Comments

### 1) Water Distribution Facility (O&M) Plan

This plan was not submitted.

### 2) Where the community obtains its drinking water.

### 3) How drinking water is distributed

### 4) History of the site such as when site was constructed, time in use, when new facility is planned for and recent changes to facility for both sewage and solid waste facilities.

Dillion Consulting did mention that there is a new sewage facility in use and that it was built over the previous one, however no dates or timelines are referenced as to when the facility was built and became operational.

Dillion Consulting also gave a brief history as to recent changes to the solid waste facility but failed to mention/discuss when the site was constructed and time that it has been in use.

### 5) List of people and their phone numbers who are responsible for the operation and maintenance of the sewage lagoon and solid waste facility.

Dillion consulting for this item listed job titles and work phone numbers. People's names of who is responsible are not included in the plan and no other alternative phone number is given.

### 6) Describe how to control weeds and insects.

### 7) Describe methods of controlling access to the site such as signs and fencing.

Dillion Consulting states that there are no controls to stop access to the site. The only limiting factor mentioned is boulders that have been placed at the entrance to the top of the berm of the lagoon to prevent snowmobiles and A.T.V's from riding on top of berm.

### 8) Site description including maps of the area showing;

- i) location of solid waste disposal facility
- ii) dimensions of facility
- iii) distance to water bodies and drainage paths
- iv) distance and bearing to the airport runway
- v) prevailing wind
- vi) segregation of solid wastes into sections such as bulky waste, waste oil, honey bag, refuse area, hazardous waste, recyclable and reusable waste



Dillion consulting did not address the dimensions of the facility or the prevailing wind in Kugaaruk. These two items should be addressed.

9) There is no Hazardous Waste Management Section in the O&M plan.

Dillion consulting should refer to (The Guidelines) when completing this section of the O&M plan.

10) Dillion consulting on behalf of the Hamlet of Kugaaruk did not submit an Environmental Emergency Contingency (EEC) plan for water.

The plan that was submitted was for sewage and solid waste combined. This plan was submitted based on “Guidelines for Spill Contingency Planning Prepared by Water Resources Division Indian and Northern Affairs Canada Yellowknife, NT, 2007”. The EEC plan contained most of the information required; however the following was not contained in the plan.

This combined EEC plan only focused on hazardous waste and only briefly mentioned a sewage truck losing its contents as part of this plan. There is no mention of anything catastrophic happening to the lagoon and any plans to combat a full breach of the lagoon.

11) Site Description: Site description should include size, location, topography, buildings and infrastructure.

12) Identification of potentially impacted communities, traditional use areas, other developments and any environmentally sensitive areas.

13) Existing preventative measures should be outlined, such as secondary containment, fuel handling procedures, etc.

14) The plan should include a map or maps showing the following:

- 1) Buildings, roads, culverts, airstrips and other infrastructure.
- 2) All Surface water bodies and direction of flow including catchment basins.
- 3) Storage locations of each hazardous material.
- 4) Probable spill locations and direction of flow on land and in water.
- 5) Locations of all response equipment.
- 6) Environmentally sensitive areas.
- 7) Any approved disposal sites.
- 8) Topography
- 9) Any other important on-site or off-site features.



The map provided in the EEC plan only showed the infrastructure as well as the storage locations of the hazardous materials. The map did not show any of the other remaining items.

14) Response Organization this section should contain response personnel, their duties, on and off-site work locations and 24 hour contact number as well as a flow chart depicting communication lines.

The Nunavut Water Board should advise the Proponent that all required items stated above should be addressed before the Operational plans are approved for water license # 3BM-PEL0712.

This information has been forwarded to our Field Operations Unit.

Cc. Lou-Ann Cornacchio, Manager of Water Resources – Indian and Northern Affairs Canada, Nunavut Regional Office