

EXHIBIT 7  
EXAMINATION OF  
DATE JAN 23/08  
*Karoline Schumann*  
COURT REPORTER  
K

#7

Environment Canada / Environnement Canada

Canada

**Cape Dorset Sewage Lagoon  
Final Public Hearing**

**Environment Canada's Intervention  
to the Nunavut Water Board**

Colette Spagnuolo  
Environmental Protection Operations  
January 23-24, 2008  
Cape Dorset, NU

## Mandate and Role

- The primary relevant legislation administered or adhered to by EC which influenced the content of this submission are:
  - *Department of the Environment Act*; and
  - Section 36(3) of the *Fisheries Act* – Pollution Prevention Provisions.
- EC is also involved in the development of the Canada-wide Standard for the Management of Municipal Wastewater Effluent

Page 2

## Compliance Point

### Issue

- Effluent discharged must be non-toxic to comply with the *Fisheries Act*. The last point of control (outfall of the primary lagoon) may need to be differentiated from the final discharge point (at some point upstream of the entrance into Telik Inlet).

### Recommendation

- The Proponent should conduct a pass/fail 96 hour rainbow trout bioassay test on the effluent sampled from the outflow of P Lake, or from the final discharge point, once annually during the second half of the decant.

Page 3

## Discharge Criteria

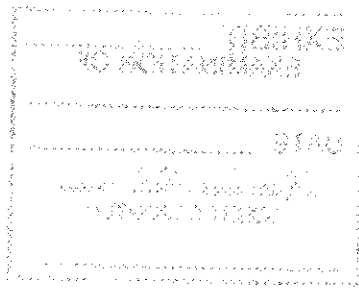
### Issue

- Discharge criteria need to be determined to be protective of the receiving environment while still being achievable.

### Recommendation

- The limits under the expired license would be appropriate for the outflow from P Lake, and that the proposed limits for the outflow to Telik Inlet be used as management targets.
- In addition to the regulated parameters, the license should include periodic analysis of a full suite of parameters including metals, nutrients and major ions and carbonaceous BOD (CBOD).

Page 4



## Lagoon Design

### Issue

- The integrity of the lagoon and the operational aspects arising from design and construction could impact water quality in the receiving environment.

### Recommendation

- The lagoon system water balance should be closely tracked to that any losses through exfiltration are detected.
- A contingency plan should be drafted, including appropriate management actions such as groundwater monitoring and remedial options, if required.

Page 5

## Monitoring

### Issue

- New Surveillance Network Program (SNP) stations will need to be identified for the P Lake system, and should include sufficient sampling sites and frequencies to inform the community about treatment effectiveness.

### Recommendation

- Sufficient monitoring should be done to characterize the quality of the effluent as it travels through the treatment system, to allow for understanding of treatment efficiency and to identify if there are high levels of contaminants that would affect efficient treatment.

Page 6

## Operation & Maintenance Manual

- The O&M Manual was submitted in November but was not reviewed for this intervention.
- We note that some of our concerns were addressed in the plan, however would like to have the plan open for review before Board approval. Specifically, items such as the following need further discussion:
  - Optimizing timing of decant to allow maximum wetland polishing of effluent, and gaining understanding of the wetland treatment;
  - Expanding the list of parameters to be monitored;
  - Removal/disposal of ice on lagoon to allow discharge; and
  - Drainage management.

Page 7

## A&R of Existing Lagoons

### Issue

- Abandonment and restoration plans are needed for the existing lagoons

### Recommendation

- Submission of an Abandonment and Reclamation plan for approval is recommended as a licence condition. Such a plan should cover the interim use and ultimate closure of the three-cell lagoon, and provide conceptual closure plans for the new system.

Page 8

## **Other Aspects of License**

### **Issue**

- The renewal application did not contain sufficient details on aspects of the license beyond the P-Lake sewage lagoon

### **Recommendation**

- EC recommends re-submission of the Hamlet's licence renewal application with a better level of detail, and strongly recommends that it contain the plans required by the previous licence.

Page 9

**Thank-you!**

**Any questions?**

Page 10