

November 19, 2012

Tony Morris
Regulatory Specialist
Sahtu Land and Water Board
Box 1, Fort Good Hope
Northwest Territories
X0E 0H0

Dear Mr. Morris,

**Re: Charter Community of Deline
Municipal Water Licence Application – S12L3-006
Request for Review and Comments**

The Department of Environment and Natural Resources (ENR) has reviewed the above application based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act* and the *Wildlife Act* and provides the following comments and recommendations.

Topic: Operations and Maintenance Manual

Comment(s):

Section 2.5 Waste Receiving (Page 10)

The Operations and Maintenance (O&M) Manual categorizes the following wastes with four separate areas. Bulky wastes such as vehicles (including snowmobiles) refrigeration equipment, and heating oil tanks may contain hazardous waste such as used oil, waste fuel, mercury, batteries, ozone depleting substances and will need to have the materials removed prior to disposal or acceptance.

Recommendation(s):

1. The Community of Deline outline how the hazardous wastes that are a part of bulky wastes will be managed according to the *Guide for Developing a Community Hazardous Waste Management Plan*.

Comment:

Section 2.5.1 Accepted Waste (Page 11)

It is encouraging to see the outline of what is considered acceptable and unacceptable in an Operations and Maintenance Plan. This section outlines the materials that are considered acceptable including Construction and Demolition waste provided that the waste is not a hazardous waste or banned material. Buildings are demolished and removed quickly with heavy equipment and may contain hazardous materials such as thermostat's, ballasts containing polychlorinated biphenyls (PCBs), glycol, asbestos, lead paint. Often this happens without prior consent from community governments and results in hazardous waste being deposited in landfills. This can be prevented by requiring demolition permits or some other method of consultation with community government staff.

Recommendation(s):

1. The Community of Deline consult the *Guide for Developing a Community Hazardous Waste Management Plan* and, outline in its O&M Manual how construction and demolition waste will be screened prior to acceptance to prevent the disposal of hazardous waste.

Comment(s): Section 2.5

Hazardous Waste Area (Page 11)

The O&M Manual states, "*Household hazardous wastes are accepted at the Solid Waste Disposal Facility (See Section 3.7.8 "Managing Hazardous Wastes")*". The section titled "Managing Hazardous Waste" is numbered 3.5.1 in the manual.

Recommendation(s):

1. The Community of Deline update the O&M Manual with the correct title reference.

Comment(s):

Section 2.5.2 Non-accepted Waste (Page 12)

This section describes the variable nature of waste and non-accepted waste. For example small quantities of mercury are considered more toxic and hazardous than larger quantities of waste paint. The *Guide to Developing a Hazardous Waste Management Plan* outlines process for setting thresholds of what is considered acceptable and not acceptable. Providing clarity of what is considered unacceptable will help solid waste staff provide clear direction to the people who use the Solid Waste Disposal site.

This section also lists the following wastes as unacceptable for placement in the landfill.

“The following items are not accepted for placement in the landfill:

- 1. Liquid wastes;*
- 2. Pathological wastes;*
- 3. Radioactive wastes;*
- 4. Hazardous wastes;*
- 5. Asbestos;*
- 6. Batteries;*
- 7. Used oil; -*
- 8. Wastes generated outside of the Charter Community of Deline;*
- 9. Any other materials not listed as acceptable or conditionally acceptable with the approval”*

The manual previously stated in Section 2.5 that household hazardous waste would be accepted in the hazardous waste area located north and east of the main refuse disposal area. The manual further clarifies in Section 3.5.1 how used oil and batteries are managed.

“Clean waste oil is accepted, and stored in drums until it can be burnt in the waste oil furnace.

Batteries are stored on-site and shipped out of the community for disposal.”

The Solid Waste Disposal Site O&M Manual appears to provide contradictory statements about what is acceptable. The O&M Manual consistently states that household hazardous waste will be accepted. It is not clear if the intent of Section 2.5.2 was meant to state that the community of Deline would not be accepting hazardous waste like asbestos, batteries, pathological waste, and used oil from the Industrial Commercial and Institutional sectors.

Recommendation(s):

1. The Community of Deline clarify what is considered unacceptable by following the *Guide to Developing a Hazardous Waste Management Plan*.
2. Clarify Section 2.5.2 to remain consistent with the rest of the O&M Manual and clearly state what materials are unacceptable at the landfill. The *Guide to Developing a Hazardous Waste Management Plan* may be referenced to help clarify.

Comment(s):

Section 2.6 Waste Inspection (Page 13)

This section of the O&M Manual offers a good solution to restrict unwanted waste from entering the landfill, by putting the onus on the hauler to ensure that these

wastes do not enter the landfill. However, it should be recognized that the majority of the waste collection is being done by employees of the Chartered Community of Deline. As such, staff involved in waste collection should be trained to ensure that unacceptable wastes are not deposited in the Solid Waste Disposal Facility.

Recommendation(s):

1. Staff from the Community of Deline also be trained in procedures that relate to preventing the deposit of unacceptable waste at the Solid Waste Disposal Facility.

Comment(s):

Section 2.11 Site Security (Page 18)

The O&M Manual states that although there is a gate at the landfill entrance, the gate will not be locked after hours. Gate control and direction by staff is considered essential to preventing unacceptable wastes from entering the facility.

Recommendation(s):

1. The Community of Deline lock the landfill gate after operating hours.

Comment(s):

Section 3.5.1 Managing Hazardous Wastes (page 26)

Hazardous Waste Definition

The definition of hazardous waste in the application references the Transportation of Dangerous Goods Act (TDGA). The definition of hazardous waste varies by provincial/territorial legislation/guidelines and is not associated with the TDGA. The definition of hazardous waste in the NWT is found in the Guideline for General Management of Hazardous Waste in the NWT¹ and is stated as follows:

A contaminant which is a dangerous good that is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage.

A hazardous waste does not include a contaminant that is:

- (a) household in origin;*
- (b) included in class 1, Explosives or class 7, Radioactive materials of TDGR;*
- (c) exempted as a small quantity;*
- (d) an empty container; or*

¹GNWT 1998. Guideline for the General Management of Hazardous Waste in the NWT. Also available online at: http://www.enr.gov.nt.ca/live/documents/content/General_management.pdf

(e) *intended for disposal in a sewage system or by landfilling that meet the applicable standards set out in schedules I, III or IV of the Guideline for Industrial Waste Discharges in the NWT.*

This section lists some of the typical household hazardous wastes generated and then contains a separate list of hazardous wastes that are 'generally accepted'. It is not clear if there are certain household hazardous wastes that are not accepted and it is not clear how all the hazardous wastes will be managed once they are received.

Recommendation(s):

1. The Community of Deline update the definition of hazardous waste in their manuals.
2. The Community of Deline clarify this section to state how household hazardous waste will be managed and if any types of hazardous waste will be accepted from the Industrial, Commercial, and Institutional sector.
3. The Community of Deline develop a hazardous waste plan by following the *Guide to Developing a Community Based Hazardous Waste Management Plan*. For further clarification regarding developing a hazardous waste management plan please contact Gerald Enns at (867) 920-8044 or Gerald_enns@gov.nt.ca.

TOPIC: CLOSURE AND RECLAMATION

Comment(s):

ENR understands that the Community of Deline is required to submit a closure and reclamation plan six months prior to the closure of the existing Solid Waste Disposal Facility to the Sahtu Land and Water Board for approval. In addition to submitting the Final Closure and Reclamation Plan (Final C&R Plan) for the existing facility, ENR would like to see a Preliminary C&R Plan for the new facility.

It is important to think about the facility's closure much earlier in the process so that progressive reclamation can take place during the life of the facility. There are three distinct steps in closure and reclamation planning:

1. Preliminary Closure and Reclamation Plan
2. Interim Closure and Reclamation Plan
3. Final Closure and Reclamation Plan

Step 1, a Preliminary C&R Plan, is appropriately prepared in conjunction with the planning and permitting stage of the solid waste facility. The general purpose is to propose closure objectives, alternatives analysis, and proposed closure criteria to understand the Proponent's intent. Determining appropriate closure options should also be integrated with a level of community engagement to build consensus upfront.

Step 2, the Interim C&R Plan, is to identify uncertainties surrounding certain closure options that guide corresponding areas for reclamation research during operations prior to closure. There are typically several versions that are prepared during the life of the facility to address changes in development alternatives, and to refine as the facility progresses towards closure and subsequent versions of closure and reclamation Plans are produced. Interim Plans are prepared on a regular basis to coincide with operational changes, advances in technology, key milestones, information collected during reclamation research, and results of community engagement.

Step 3, the Final C&R Plan, should be more detailed because more information and studies are available to determine duration, frequency, and magnitude of the effects. The final version of the C&R Plan is to contain detailed reclamation activities, and should be prepared and approved prior to a scheduled permanent closure or immediately after an unplanned closure.

Recommendation(s):

1. The Community of Deline submit a Final Closure and Reclamation Plan for the current landfill.
2. The Community of Deline submit a Preliminary Closure and Reclamation Plan for the new landfill.

Comments and recommendations were provided by ENR technical experts in the Environment Division, and/or the Sahtu Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM).

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at 920-6118 or patrick_clancy@gov.nt.ca.

Sincerely,



Patrick Clancy
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Environmental Assessment and Monitoring
Land and Water Division
Environment and Natural Resources
Government of the Northwest Territories