



CITY OF YELLOWKNIFE

February 13, 2014

Mackenzie Valley Land and Water Board
Box 2130, 7th Floor - 4910 50th Avenue
Yellowknife, NT X1A 2P6

Attention: Miki Ehrlich, Regulatory Officer

**RE: Water Licence No. MV2009L3-0007
Solid Waste Facility Modification Request**

Dear Ms. Ehrlich,

This letter is to address a change in the City's request for a modification to the Water Licence for the expansion of the Centralized Compost Facility located at the Solid Waste Facility. The City has recently had discussions with Dr. John Paul, president of Transform Compost Systems, a specialist in composting and organic waste management. Out of these discussions we have learned that an asphalt pad is not required as a base pad for our compost facility. The desired composting requirements can be achieved using a gravel pad which would provide additional flexibility and easier maintenance. Based on this, the City has decided to change the base pad that we plan to use for the compost facility (section 2.1 Base Pad from the Solid Waste Facility Modification Expansion of Centralized Composting Facility request). The new design for the base pad will be as follows:

1. 60mm LLDPE single side textured Geomembrane.
2. 200mm of 20mm minus crush material.
3. Geogrid.
4. Sub-Base Layer: 250mm of 50mm minus crush material.
5. Base Layer: 150mm of 20mm minus crush material.

The 60mm LLDPE is a similar product to that which will be used to close out the other areas of the existing landfill and, as such, will tie in easily with the rest of the closure plan. The decision to use the LLDPE for the compost pad was made due to the higher elongation tensile properties that this liner has

over an HDPE liner or an asphalt layer. This will provide more flexibility in the event that minor settling occurs and will ensure that the impermeable layer over the closed out landfill is maintained. The Geogrid will provide further protection to the LLDPE to ensure that no larger rocks are able to be in contact with the LLDPE liner.

If you have any questions regarding the request, please contact me at mauge@yellowknife.ca or by phone at 920-5639.

Sincerely,



Mike Auge
Municipal Works Engineer, Public Works and Engineering

(DOCS-#384638-v1-COMPOST_FACILITY_MODIFICATION_REQUEST_-_CHANGE_OF_BASE_PAD)

