



Environmental Protection Operations Directorate (EPOD)
Prairie & Northern Region (PNR)
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June 6, 2017

ECCC File: 6200 000 016/004

NWB File: 3BM-PAN1417

Karén Kharatyan
Acting Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

via email: licensing@nwb-oen.ca

RE: 3BM-PAN1417 – Hamlet of Pangnirtung – Water Licence Renewal Amendment

Attention: Karén Kharatyan

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board regarding the above-mentioned water licence renewal amendment application and is submitting comments via email. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

The following comments are provided:

1. ECCC recommends that the Type A Water Licence include a condition requiring that acute lethality testing be undertaken at end of pipe for the Pangnirtung Waste Water Treatment Plant. Given that the plant is treating fish processing plant wastewater as well as domestic wastewater there are additional contaminants associated with the cleaning chemicals that enter the treatment system. These chemicals have the potential to reduce the effectiveness of the water treatment plant by impacting the bacteria that are required to treat the wastewater. This has the potential to lead to increased concentrations of parameters of concern associated with the domestic wastewater being released into the receiving environment. This testing will help to inform the Board of treatment efficacy.

2. There are no figures provided to indicate the path of the effluent from the water treatment plant to Pangnirtung Fiord and the point of discharge. ECCC recommends that Figures/maps be provided.
3. The Pangnirtung Wastewater Treatment Facility Upgrade Process Operation Manual provides information on how the WWTP functions; however, specific details on output effluent quality are not included in the submission. ECCC recommends that a summary of effluent quality during sampling events since the implementation of the waste water treatment plant be provided.
4. It is stated in the Solid Waste Operation and Maintenance Plan that the leachate from the solid waste disposal facility enters the sewage treatment wetland. This sewage treatment wetland is not discussed anywhere else in the application, nor is it depicted in any of the figures. ECCC recommends that the Proponent provide clarification on how the leachate is collected from the solid waste operation, how the leachate is managed after collection, if/where it is discharged to the environment, and provide information on the quality of the leachate that is being produced, and that is ultimately entering the receiving environment.
5. The Solid Waste Operation and Maintenance Plan does not discuss all leachate/run-off monitoring that is required under the existing water license. PAN-3 (effluent discharge), PAN-4 (leachate from sludge dumping), and PAN-5 (leachate from domestic waste dumping) are listed, but the plan does not discuss the required sampling at PAN-6 (run-off from the metals storage area). In addition, the frequency of sampling is not provided for PAN-5 (Section 8.1 – Table 7). ECCC recommends that the Solid Waste Operations and Maintenance Plan be updated to ensure consistency with license conditions.

Should you require further information, please do not hesitate to contact me at (867)669-4732 or Emily.Nichol@canada.ca

Sincerely,



Emily Nichol
Environmental Assessment Coordinator

cc: Bradley Summerfield, Senior Environmental Assessment Coordinator
Georgina Williston, Head, Environmental Assessment North (NT and NU),
PNR-EPOD