From:	Wilson,Anne [Yel]
To:	permits@mvlwb.com
Cc:	Ogilvie,Carey [Yel]; Kelly,Mary [Yel]; Broome,Craig [Yel]
Subject:	Hay River renewal comments
Date:	Friday, October 09, 2009 12:21:40 PM
Attachments:	MV2009L3-0005 Hay River renewal Oct 2009.pdf

Hi Shannon,
Thanks for the time extension!
Anne

<<MV2009L3-0005 Hay River renewal Oct 2009.pdf>>

Environment Canada Environnement Canada

Environment Canada
Prairie and Northern Region
P.O. Box 2310
5019 - 52 Street 4th Floor
Yellowknife, NT X1A 2P7

Oct. 9, 2009 Our File: 4782 009

Mackenzie Valley Land and Water Board
P.O. Box 2130
7th Floor - 4910 - 50 Ave.
Yellowknife, NT X1A 2P6 By Email

Attention: Shannon Hayden

Re: Town of Hay River Water Licence Renewal Application - MV2009L3-0005

On behalf of Environment Canada (EC) I have reviewed the above water licence renewal application along with supporting materials, and provide the following comments for your consideration. EC's contribution to your request for specialist advice is based primarily on EC's mandated responsibilities under Section 36(3) of the *Fisheries Act,* and the *Canadian Environmental Protection Act*.

Comments on the application documents:

Maps and drawings:
A number of the drawings included with the application are illegible. A map should be provided which shows all the Surveillance Network Programme station locations.

Spill Contingency Plan
Appendix A
Please correct the contact number for EC to 867-669-4736 and 1-866-845-6037 for emergencies
Appendix B
Further guidance on the use of the classification should be given in the plan; it is not referenced in the body of the plan.

Closure planning:
The water licence application states in Section 6.5 that a copy of the abandonment and restoration plan is in the attached O&M plan, but this is missing. The wording of the licence is such that an A&R plan is not required until six months prior to abandoning any Waste Disposal Facilities.

Operation and Maintenance Plan
The plan does not provide a working reference for operators in that it states what will be done, but not operational details. There is an insufficient level of detail throughout.

Section 2.2 Engineered treatment pad

What specific materials are accepted for the pad? How is it operated and what testing is done to determine when treatment is sufficient?

Section 2.3 Leachate control pond
How is leachate treated/disposed of?

Section 3.2 what materials are recycled?

Section 3.7 Hazardous Materials
This section simply states that hazardous materials are separated and properly stored until shipped out for disposal. It would be helpful to have documentation of what is accepted, how it is handled and stored, where the MSDS are kept, spill planning, and training given to workers handling such materials.

Section 4.7 Treatment of Contaminated Drainage
This section states that leakage out of the solid waste facility will be tested for contaminants and if found suitable will be transported to the lagoon. How is this tested, and what is deemed suitable? How will leachate be stored in the meantime? The plan states that "If testing revealed toxic elements that were not suitable for treatment in the waste water system the effluent will be trucked to the soil remediation facility and sprayed over the containment area." Depending on what the toxic elements are, this could contaminate soil and inhibit remediation processes. This section should clearly lay out what needs to be tested, and what would be done with each category of contaminated drainage.

Section 4.8 Removal of Accumulated Sludge from the Lagoons
How is it determined when sludge removal is required? When cells are closed for desludging, where does the sewage inflow go? Any water decanted should be of appropriate quality before being released to the wetlands, so testing should be identified, and alternative handling methods outlined.

Section 4.10 QA/QC Plan
This section only refers to the analytical laboratory, but should include quality control information on taking samples properly, handling of bottles to prevent contamination, sample handling, and documenting samples. The INAC 1996 guidelines may be helpful, and are attached.

Section 4.11 Disposal of Sludge
Sludge from the sludge lagoon is to be placed outside the lagoon edges to add to the soil mass. Testing should first be done to ensure there is no contaminant risk to human health nor the environment. Also, will this alter drainage and access of equipment to the cells?

<u>Licence Terms and Conditions:</u>

Part D.2. Effluent quality requirements
Acute toxicity: The licence requires that there is 100% survival of test organisms in the acute bioassay tests. EC recommends that this be amended to 90% to be consistent with the test protocol, which allows 10% mortality in control animals.

Part D.6 The licence refers to a bagged toilet waste disposal facility, but it is my understanding this does not exist. If there are still honeybags in use, the O&M Plan should note how disposal is being managed.

Surveillance Network Program (SNP)
Condition B.1 Station Number 0053-2
The SNP requires the licencee to sample the wetlands outflow at commencement and monthly during periods of flow for analysis for a full suite of parameters. EC supports the frequency in the expiring licence at a minimum; this will be consistent with the upcoming requirements outlined under the Canada-wide Strategy for the Management of Municipal Wastewater Effluent (CWS). EC recommends the addition of cBOD as a monitored parameter at Station Number 0053-2. The 2008 Water Report only provides SNP data for one sampling event dated June 24, 2008 – did the municipality collect the other samples as required?

Condition B.2 requires the collection of bioassay samples for submission to EC for toxicity testing. In the past there have been test failures, and in the past year the Town has failed to provide the samples for analysis. EC recommends that the SNP condition be amended to require the Town to have the bioassay tests done by an accredited lab, and to have them done as a pass/fail static bioassay test (not the LC50 test). The CWS will require that systems with intermittent discharge do acute and chronic toxicity test twice per discharge period: once near the start, and once near the end. With this in mind, EC supports the reduction of the test frequency in the SNP to twice annually, early in the flow season and again before freeze-up.

Station Number 0053-3
To gain an understanding of the treatment afforded by the wetlands, the outflow from the two lagoon trains should be sampled concurrently with the 0053-2 samples.

Station 0053-5
Unless there is honeybag disposal at the landfill, or human health concerns, the need to do bacteriological analyses at the landfill is questionable. The 2008 report does not include any results for the other parameters required in the SNP; these samples should be done in accordance with the licence conditions and reported.

EC will be in attendance at the technical sessions and available for the pre-hearing conference and the public hearing. Please do not hesitate to contact me at (867) 669-4735 with any questions or comments regarding the foregoing.

Yours truly,

Anne Wilson
Water Pollution Specialist
Environmental Assessment - North,
Environmental Protection Operations

cc: Carey Ogilvie (Head, Environmental Assessment-North, EPOD)
Mary Kelly (Physical Science Officer, EPOD)
Craig Broome (Operations Manager-N District, Environmental Enforcement, EC)