

Jim Wall

From: "Michael Roy" <roymjp@inac.gc.ca>
To: <nwbtech@polarnet.ca>
Sent: Monday, September 30, 2002 8:21 AM
Subject: Hall Beach DEW Line Clean-Up - NWB5HAL

Nunavut Water
Board

2002

Public Registry

Hello Jim,

I wanted to send my comments in on the NWB5HAL DEW Line clean-up project last week, but weather delays in field sampling kept me out of the office until today. I therefore apologize for not providing comments by your deadline that was last week.

Hoping that you guys haven't finalized anything on that licence yet, below are my comments in a rough draft format. I will also prepare a formal letter that I will hopefully submit to you later today, but this email of comments should help with your licensing process until then.

As such, breaking the project down into various aspects, I have the following comments:

-Water Use: The camp will be obtaining water from the community, and hence does not need a water licence for the aspect of water use.

-Camp Grey Waste/Sewage/Solid Waste: The camp will also be dumping their sewage and camp waste in the community facilities, and thus also does not need a water licence for this aspect of their project.

-Excavation near marine shore: The excavation near the marine shore is not near any freshwater stream or lake, and does not appear that it will affect freshwater at all. It may possibly affect the marine environment, but that is outside of the jurisdiction of a freshwater water licence. Talking to the DCC, they do not expect any water infiltration in the hole as they work as they will be filling these holes almost as quickly as they dig them. Following that assumption, I would say a water licence is not required for this aspect of the project.

However, I do acknowledge that there is always the possibility that there will be water infiltration; I do not know if it would be marine or freshwater since I have no info on the groundwater conditions there. You may want to have some condition in a water licence relating to that, but I'm not really sure what can possibly be done about it. If water infiltrates, pumping it out will only bring more water infiltration... if the water infiltrates slowly, then they should be able to fill the holes as they excavate as planned, so this wouldn't be a problem anyway. If they can pinpoint where the infiltration (if any) is coming from, perhaps diversion ditches may help, but perhaps not if it's coming from everyone at once or from the marine environment. Simply filling the hole up with non-contaminated soil as they excavate, as they currently have planned, is probably the best solution.

One thing to consider, if water infiltration is noticed, perhaps samples can be taken for hydrocarbons. This could indicate if the groundwater is contaminated with hydrocarbons and help with the evaluation of the full clean-up project, which I believe is to start next year. Then again, DCC might already have groundwater samples of the area from their original evaluation, making this unnecessary.

-Disposal of TIER I and TIER II contaminated soils: These will be placed in the old dried-up sewage

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lagoon near the marine shore. Since these contaminants only move with the soil (they are not soluble), and there is no water in that storage area, I do not think it will affect freshwater. Also, the sewage lagoon area is already contaminated with TIER I/II soils, so nothing worse is being placed in that area. Finally, assuming water did flow through the area and moved the contaminated soils, it would wind up in the marine environment as this lagoon is, as mentioned, at the marine shore. I therefore do not believe that a freshwater water licence is needed for this aspect of the project.

-Disposal of Hydrocarbon Contaminated Soils: This part of the project, in my opinion, is the part that does require a water licence. The Hydrocarbon contaminated soils will be placed in the area that will become, in the future of this project, the landfarm. Although it is designed to have a berm and ditch to contain and hydrocarbons that may leach from the soils and prevent them from entering water, there is still the possibility that freshwater may be affected. This landfarm is away from the shore and will result in overland travel of the hydrocarbons if they do "escape" the landfarm, and thus freshwater may be impacted.

The Landfarm will not be using a liner. Asking around, I have learned that many people believe that a liner is not necessary for a landfarm, and may not make any significant difference as to what may reach water - it is the design of the containment berm that really counts. I will agree with this, and therefore I do not think a liner is required, but I would certainly require monitoring to confirm that no hydrocarbons are leaching into the environment.

I would therefore recommend that a water licence be issued to the project with the conditions of monitoring around the landfarm to verify that no hydrocarbons are leaching out into the environment and nearby waters.

Another condition I would recommend is that proper cleaning/decontamination of the vehicles is observed so that contaminants are not dragged around the site while bringing the contaminated soils to their various disposal areas. Although the disposal area for the TIER I/II soils may not affect freshwater, the route between the excavated area and the disposal site does have areas that can influence freshwater. This route may or may not already be contaminated, but I believe that anything dragged along will end up "loose" on the surface and could thus be transported along as sediments with any water flow. According to the DCC plans, they seem to have this aspect under control, but I still think it should be reinforced with a condition in their licence.

Finally, these comments regard the current proposal of only excavating the one area by the marine shore as indicated in their application form. When the application for the entire DEW Line clean-up is submitted, I will certainly have more comments for other aspects of the entire clean-up project once submitted.

Well, I hope this helps you guys despite being almost a week late. As mentioned, I will try to get a more formal letter to you later today. And once again, I apologize for the delays.

Regards,

Michael Roy
Qikiqtani Regional Coordinator, Water Resources
INAC - Nunavut Regional Office

P.O. Box 2200, Iqaluit, NU, X0A 0H0,
(867) 975-4555
fax: (867) 975-4560
roymjp@inac.gc.ca