Richard Dwyer

From: David Hohnstein [dts@nunavutwaterboard.org]
Sent: Friday, April 04, 2008 5:30 PM
To: Wilson,Anne [Yel]; Dwyer, Richard; Rogers, Jim
Cc: Craig, Douglas
Subject: Fw: Defence Construction Canada

Good afternoon,

The NWB has received the request below, from Mr. Douglas Craig and DCC with respect to 3 of the DEW Line Cleanup operations that received Water Licences from the NWB in 2007. The issue brought to the NWB attention is that of the requirement within the Licence to meet regulated levels of Phenol within (Demolition rinse, contaminated soils contact and landfarm) water releases to the environment.

As Mr. Craig has indicated in his request below, phenols were not included in the original request response provided to the NWB as the levels that are encountered are normally below that of 20ug/L when the Oils/grease component is below 5ppm. When the O&G component is above the 5ppm, then treatment is required, which would result in the phenol content being lowered below the 20ug/L.

As the Phenol analysis is required off site and turnaround time is lengthy, which may impact the project timelines, DCC is requesting that the requirement to monitor and meet a specified water quality limit for Phenol be removed from the licence. The monitoring of the TPH is proposed to be the main analyitical method for determination of any contamination, and reduction of the TPH below 5ppm would be sufficeint in maintaining the Phenol level below that required in the licence.

The responses to the application from EC, INAC and GN DoE were reviewed in an attempt to identify where the additional requirment for regulating the Phenol levels may have come from, however it appears as though it was added based on other sources, possibly a previous licence that incorporated the requirement. The Decision portion of the licences does not include discussion on the Phenol requirement so it is not clear at this point as to the origin of the requirement.

I would like to request that both INAC and EC review the Licence with the above (and below) in mind and provide their expert advice to the NWB on whether there is basis for the requirement or if the NWB can address the request with an errata to the licence, relying on the requirement to meet a 5mg/L effluent limit on Oils and Grease to ensure the 20ug/L limit is maintained, as a side response to the 5mg/L limit on the O&G.

I thank you for your time on this matter. A response at your earliest convenience is much appreciated.

Regards,

David Hohnstein
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----- Original Message -----
From: Craig, Douglas

To: dts@nunavutwaterboard.org
Cc: eva.schulz@uma.aecom.com
Sent: Thursday, March 06, 2008 7:43 AM
Subject: Defence Construction Canada

Good afternoon David,

I was speaking with Phyllis Beaulieu of the NWB in Gjoa Haven last week regarding a technical issue in three recent water use licences, and she referred me to you. I've tried calling a few times, but assume you've been busy on another line or away.

The issue I'd like to discuss relates to the following licences:

#1BR-MAC0712 (CAM-5, Mackar Inlet),
#1BR-JEN0712 (CAM-1, Jenny Lind Island), and
#1BR-BYR0712 (PIN-4, Byron Bay)

These three licences were obtained in 2007, and differed from previous licences in that they provided specific criteria for the discharge of contact water, meaning water that has potentially come into contact with contaminants (excavation water, rinsewater from barrel processing, etc.). During the writing of the recent licences, the NWB requested the criteria that we would be using, which was then incorporated into the licences. All of the parameters and criteria we submitted were then included in the wastewater criteria in the licences, however, an additional parameter - phenol, was also added. The main points for not including phenols, based on some of the data we had collected, were:

1. The main source of phenol at the DEW Line sites is oil and grease.

2. We measure oil and grease in a more direct manner, specifically Total Petroleum Hydrocarbon (TPH). TPH is part of the criteria listed in the licences, and a parameter that was already being used by the DLCU project.

3. When phenols are present at concentrations above 20 ug/L (criteria limit in licences), oil and grease concentrations are above the maximum allowable concentration (MAC) of 5 mg/L, and will usually produce a visible sheen. When the oil/grease concentration in the wastewater is above the MAC, the water must be treated prior to discharge. Typically, when this water is passed through an activated carbon filter, and/or absorbent material was used to remove a visible sheen, a decrease in phenol concentrations to below the MAC of 20 ug/L was also observed.

4. TPH can be measured onsite, but phenol cannot. Phenol analysis requires time intensive shipping and testing in southern labs. As you are aware, even small time delays can significantly impact the remediation program, as the construction season in the far north is quite short.

Defence Construction Canada believes that the risks from oil/grease are adequately addressed through the sampling and testing of the contact waters for TPH, and would like to request that the NWB consider modifying the above noted licences, as the inclusion of phenols may cause unnecessary delays in the project.

Sincerely,

Douglas Craig, M.Sc.
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DEW Line Clean Up
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