Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

Water Resources Division
Nunavut Regional Office
Iqaluit, NU X0A 0H0

June 29, 2009

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0A 1J0

Re: Defence Construction Canada – Position Paper – DEW Line Cleanup Project – Phenols in Wastewater (prepared by Environmental Sciences Group)

Please be advised that Indian and Northern Affairs Canada (INAC) has completed a review of the above noted position paper.

The Nunavut Water Board (NWB) distributed this document, for comment on May 29, 2009.

Please feel free to contact me should you have any questions or comments. I can be reached at (867) 975-4566 or by email at tanya.trenholm@inac.gc.ca.

Sincerely,

Original signed by

Tanya Trenholm
Pollution Policy Specialist

Our File # 9545-1
Doc. CIDMS # 340787

Technical Review Memorandum

To: Phyllis Beaulieu, Manager of Licensing - Nunavut Water Board

From: Tanya Trenholm, Pollution Policy Specialist - Indian and Northern Affairs Canada – Water Resources Division

Re: **Defence Construction Canada – Position Paper – DEW Line Cleanup Project – Phenols in Wastewater (prepared by Environmental Sciences Group)**

Background Information:

The Nunavut Water Board requested comments from interested parties concerning a position paper submitted to the NWB by the Environmental Sciences Group (on behalf of Defence Construction Canada) entitled, 'DEW Line Cleanup Project – Phenols in Wastewater'.

The position paper recommends that phenols be removed from the list of required sample parameters for wastewater discharged at Dew Line Cleanup Sites through remediation activities. Sampling for oil and grease would continue to be implemented.

The NWB requested, specifically, comments in regard to three questions (highlighted below).

Recommendations / Comments

1. Do phenols have the potential to adversely affect water in Nunavut?

Phenols do have the potential to adversely affect waters (including waters in Nunavut). For this reason, the Canadian Council of Ministers of the Environment (CCME) water quality guideline for phenols for the protection of freshwater life was developed based on the CCME protocol, and is 4.0 $\mu g \cdot L^{-1}$.

2. Should wastewater potentially containing phenols, that is discharged onto land thirty (30) metres above the high water mark of a water body, be regulated at DCC Distant Early Warning Line remediation projects

The *Nunavut Waters Nunavut Surface Rights Tribunal Act* (NWNSRTA), Section 12 a and b, states:

12. '…. No person shall deposit or permit the deposit of waste
(a) in waters in Nunavut; or
(b) in any other place in Nunavut under conditions in which the waste, or any

other waste that results from the deposit of that waste, may enter waters in Nunavut'

Where 'waters' is defined in the NWNSRTA as;
'… inland waters, whether in a liquid or solid state, on or below the surface of land.'

Therefore, the deposit of any identified phenols contained in wastewater should be considered as part of that wastewater and would be subject to the Act. Any deposit of waste that could affect waters (as defined) in Nunavut, either directly or indirectly, should be regulated by the Board. Wastewaters potentially containing phenols should be regulated at all DCC Distant Early Warning Line remediation projects.

3. Should phenols be regulated in general through NWB water licences where discharge is to land, 30 metres or more above the normal high water mark of the nearest water body (especially were direct or indirect flow to surface freshwaters is not possible).

Phenols should be regulated, in general, by the NWB through water licences if they are identified in waste that has been generated at any particular site. The Board could remove site specific phenol at DEW Line clean up sites and/or in the case where 'direct or indirect flow to surface freshwaters is not possible. In these instances the proponent must be required to submit a comprehensive and detailed site specific risk assessment. The site specific risk assessment must consider all possible contaminant pathways and provide verification (complete with rationale) that assures any material containing phenols in excess of the licensed parameters cannot enter into any waters, directly or indirectly.

I trust this satisfies your request.

Please feel free to contact me at your convenience should you wish to further discuss any part of this submission to the Board. I can be reached at 867-975-4566 or via email, tanya.trenholm@inac.gc.ca.

Cc. Kevin Buck, Manager, Water Resources Division – Indian and Northern Affairs Canada;