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15 December 2017

INAC File: CIDM #1182814
NWB File: 1BR-PEL1016

Via email to: cynthia.ene@nwb-oen.ca

Cynthia Ene
Technical Advisor
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Re: Response to INAC's Letter Dated October 19, 2017, Titled "Indigenous and Northern Affairs Canada's (INAC) Technical Review of CAM-4 Pelly Bay – Department of National Defence – Type 'B' Water Licence Renewal 1BR-PEL1016"

Dear Ms. Ene,

DND has reviewed the above-referenced letter and is submitting this letter in response to the recommendations provided therein. For consistency, DND has followed the naming convention of the section headers in the INAC letter.

1. Monitoring Report

Summary of INAC Comment:

- INAC would like clarification from the 2010 issued water licence if the landfarm is still to be monitored as part of this water licence.

DND Response:

- Treatment of hydrocarbon impacted soil at the CAM-4 Lower Site landfarm was undertaken until it was demonstrated through a robust soil sampling program that the average total petroleum hydrocarbon (TPH) concentrations within the entire landfarm had a 95% Upper Confidence Limit (UCL) below the TPH closure criterion of 2,500 part per million (ppm) and no individual sample concentration was greater than twice the TPH closure criterion of 2,500 ppm.
- Once the soil remediation objective had been achieved, the treated soil was consolidated in two lifts to a depth of 1.0 m, followed by the placement and compaction of 0.3 m of clean granular material over the consolidated soil. The landfarm area was then graded, including the perimeter trenches, to promote surface water run-off.

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- Due to an unintended oversight, the Lower Site landfarm at CAM-4 was not inspected for stability during the 2011 monitoring event, as stipulated by the 2010 water use licence (1BR-PEL1016), nor was it inspected during the 2013 or 2016 monitoring events. DND apologizes for this oversight.
- However, it is DND's opinion that this oversight did not result in undue risk to potential site receptors, and that future stability monitoring of the Lower Site landfarm at CAM-4 is not required for the following reasons:
 - In the event that the physical condition of the closed landfarm degraded to the point where some of the treated soil it contains was released, this soil would not be expected to pose an undue environmental risk to potential site receptors as it had previously been treated and verified to have met or exceeded the DEW Line Clean-Up Criteria value of 2,500 ppm for TPH.
 - The Lower Site landfarm is located approximately 100 m from the nearest downgradient seasonal water body (an unnamed creek) and approximately 450 m from the nearest downgradient permanent water body (Barrow Lake), in a relatively flat area (local grade of approximately 4%). In the event that the physical condition of the closed landfarm degraded to the point where some of the treated soil it contains was released, this soil would not be expected to pose an undue sedimentation risk to either the creek or Barrow Lake, due to the distance between the landfarm and these water bodies, and the relatively gentle slope in the area.
- DND would like to verify in light of the information outlined herein, if it would be possible to remove the landfarm monitoring from the water use license conditions.

2. Annual Reports

Summary of INAC Comment and Recommendation:

- Annual Reports 2010, 2011, 2012, 2013, 2014, 2015 and 2016 have not been provided to INAC for review. INAC recommends that the Licencee submit these Annual Reports as a requirement under Part B, Item 1 and all monitoring results and information required by this part.

DND Response:

It is standard practice every year for Defence Construction Canada, on behalf of the Department of National Defence, to submit the annual reports to the NWB once they are finalized. DND conducted a search of the NWB public registry where reports are normally located, and provided on December 12, 2017 another digital copy of any reports not found. Although not on the public registry, the missing reports should be otherwise available at the NWB; the December 12, 2017 submission was for ease of updating the public registry without having to search through historical correspondence.

- 2010: DND emailed a copy of the annual report to NWB on December 12, 2017.
- 2011: Located on NWB public registry ([http://www.nwb-oen.ca/public/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-PEL1016%20CAM%204/3%20TECH/10%20MONITORING%20\(J\)/120330%201BR-PEL1016%20DEW%20Line%20Clean%20Up%20Proj%20Mon%20Report%202011/](http://www.nwb-oen.ca/public/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-PEL1016%20CAM%204/3%20TECH/10%20MONITORING%20(J)/120330%201BR-PEL1016%20DEW%20Line%20Clean%20Up%20Proj%20Mon%20Report%202011/))
- 2012: Site not monitored, no annual report.
- 2013: DND emailed a copy of the annual report to NWB on December 12, 2017.
- 2014: Site not monitored, no annual report.

- 2015: Site not monitored, no annual report.
- 2016: Located on NWB public registry ([http://www.nwb-oen.ca/public/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-PEL1016%20CAM%204/3%20TECH/10%20MONITORING%20\(J\)/2016%20Long%20Term%20Landfill%20Monitoring/](http://www.nwb-oen.ca/public/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-PEL1016%20CAM%204/3%20TECH/10%20MONITORING%20(J)/2016%20Long%20Term%20Landfill%20Monitoring/))

It is anticipated that the information herein addresses all outlined concerns and recommendations. If further clarification is required, please do not hesitate to contact me at (613) 995-8603 or Alison.Street@forces.gc.ca

Regards,



Alison Street, P.Eng.
Project Officer, DEW Line Clean-Up and Long Term Monitoring, DND

cc: Lisa Bachellier, Water Resource Technician, Indigenous and Northern Affairs Canada
Karén Kharatyan, Acting Manager of Licensing, Nunavut Water Board
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