



NWB Tools

Robin Ikkutisluuk &lt;robin.ikkutisluuk@nwb-oen.ca&gt;

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## [Licensing] Licence No. 1BR-GLA0815 -- Additional Information Regarding Licence Renewal Application

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**Van Dyck, Tamara** <Tamara.VanDyck@dcc-cdc.gc.ca>

Wed, Mar 11, 2015 at 10:15 AM

To: Brady MacCarl &lt;brady.maccarl@nwb-oen.ca&gt;

Cc: "licensing@nwb-oen.ca" &lt;licensing@nwb-oen.ca&gt;, "Laura.D'Costa@forces.gc.ca"

&lt;Laura.D'Costa@forces.gc.ca&gt;

Hi Brady,

Sorry to take so long getting back to you, please see the responses to your questions below.

Regards,  
Tamara

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From: Brady MacCarl [[brady.maccarl@nwb-oen.ca](mailto:brady.maccarl@nwb-oen.ca)]

Sent: January 23, 2015 6:58 PM

To: Van Dyck, Tamara

Cc: Licensing Department

Subject: Licence No. 1BR-GLA0815 -- Additional Information Regarding Licence Renewal Application

Dear Tamara Van Dyck:

Thank you for the Licence Renewal Application for Licence 1BR-GLA0815, submitted to the NWB on January 19, 2015.

On preliminary analysis the Application appears to generally meet licence requirements. However, I am requesting that DCC provide additional information on the following issues before the application process continues:

1. Regarding frequency of monitoring events, it is understood DDC followed a multi-phase sampling schedule which, although not directly referenced, appears to follow the Abandoned Military Site Remediation Protocol (INAC, 2008) schedule where long-term monitoring events occur in years 1, 3, 5, 7, 10, 15, and 25. However, the Landfill Monitoring Program (2008) submitted with the Application states "The East Landfill and the Tier II Disposal Facility will be monitored on an annual basis for the first five years." The first five years in the document are identified as 2006-2010. Please clarify the DCC's monitoring strategy.

The frequency of monitoring events associated with the Long Term Monitoring Program developed for the DEW Line Clean Up Project have been included with CAM-2 renewal application documentation. The Executive Summary (pages 24-26) describes objective, Program Components, Frequency, and Review and Evaluation Process. The frequency of the Longterm Monitoring Program is discussed in further details within the body of the Landfill Monitoring Program document (pages 38-39). Phase I Longterm Monitoring of CAM-2 was completed in 2010; this site is now in Phase II of the Monitoring Program. The Phase II monitoring events associated with this site occur in 2012, 2015, 2020, and 2030. The details of the analytical analysis associated with each facility and the parameters evaluated can be found within the Landfill Monitoring Program document (pages 40-44). The post-construction landfill monitoring program was developed through multi-stakeholder consultations that culminated in the DND-NTI Environmental Agreement, described in Appendix H (pages 97-108). The development of the Abandoned Military Site Remediation Protocol (INAC, 2008) was based on the science and research of the DEW Line Clean-up methodology, but is not applicable to our monitoring program.

2. Pursuant to Part D, Item 1 of the Licence, the Licensee was to a Close-out Report for the sewage lagoon built during remediation activities (2005). NWB reminded the Licensee of this condition in an email dated October 13, 2010. The Close-out Report was never submitted.

I reviewed a copy of the Water Use License (WUL) for CAM2. Part D, Item 1 makes no mention of a requirement for a Sewage Lagoon Close Out Report. Below is a summary of information associated with the closure of the sewage lagoons at CAM-2; much of the information noted below was submitted to NWB 31 March 2006, CAM-2 Annual Report (NWB: 060331 1BR-GLA0308 2005 annual report-ILAE.pdf). After reviewing the information herein, can you please clarify if there is a residual requirement for information, or if this is sufficient to address this item.

- a) The sewage lagoon was located more than 300 m distant from the nearest water body and greater than 500 m from the shoreline. There were no surface discharges to any receiving water bodies during the operation of the sewage lagoon.
- b) No effluent waters were discharged from the lagoon prior to closure. The volume of liquid in the lagoon was small enough that the facility could be backfilled without discharge or overflow occurring.
- c) The sewage lagoon is no longer in operation. It was closed when the clean up at the CAM-2 site was completed in 2005. No sampling was conducted of the berms or base of the sewage lagoon. Based on the types of potential contaminants that could be present, multiple months of below freezing temperatures would have significantly reduced the viability of the bacteria, and since there was no direct discharge to a water body, any environmental impact due to BOD5 containing compounds would have been negligible.
- d) The sewage lagoon was closed in 2005 at the end of the construction/clean up program at the CAM-2 site. Sample 04-6962 collected from the sewage lagoon on July 21, 2004 was located at 548176E, 7617814N. Sample 05-9596 collected from the sewage lagoon on July 20, 2005 was located at 548186 E, 7167803N.
- e) No design drawings were prepared for the sewage lagoon. Therefore, no as-builts can be prepared.

3. Part K, Item 2 of the Licence required the Licensee to provide an addendum to the Monitoring Plan (2008) detailing the monitoring completed for the Landfarm Facility, including the criteria employed for contaminated soil and the location of remediated soil. The NWB reminded the Licensee of this requirement in an email dated September 23, 2010, but did not receive the addendum.

Hydrocarbon contaminated soils are remediated in a landfarm to meet the criteria of 2500 ppm, as referenced in the DND-NTI Cooperation Agreement. Once the soils have been remediated to 2500 ppm or below, no further work is required and the soils are left in place, although the berms of the landfarm area are removed and the surface is regraded. Because the soils have met the remediation criteria, no further monitoring is conducted. The current landfarm evaluation protocol follows a stratified random sampling approach, with statistical analysis of results obtained from an accredited southern laboratory. The protocol aims to characterize the average concentration and distribution of TPH in the landfarm soil, and have been accepted for evaluating compliance with the Environmental Agreement (DGE, 1998) Under the current (2005) protocol, in order for the landfarm to be recommended for closure. The Upper 95% Confidence Limit (UCL) of the mean of all results are required to be below 2500 ppm with no individual sample result exceeding 5000 ppm. Statistical analysis to determine the UCL was performed using Pro UCL Statistical Analysis Software (USEPA, 2005).

4. The Licensee failed over the course of the Licence to submit any Annual Reports, as required under Part B, Item 1 of the Licence. Although the NWB recognizes that in many respects it appears redundant to submit Annual reports in years that a) no monitoring activity occurs, or b) a Long-term Monitoring Report for the year has already been submitted, the Proponent is kindly reminded that Annual Reports are one of the few ways the NWB receives updates—to respond to if needed—on many of the licences under its jurisdiction. Long-term Monitoring Reports do not always cover many of the conditions imposed under the Licence which the NWB finds important, such as water use and waste generated during camp activities. The Annual Report also allows the Licensee to respond on a personal note to monitoring work undertaken by a third party, such as corrective measures to highlighted deficiencies. Lastly, the NWB requires the submission of Annual Reports from all Licensees involved in remediation work of former DEW Sites, and we cannot pick-or-choose with whom we reinforce this condition. Please provide Annual Reports as defined under Part B of the Licence for the years monitoring activities occurred.

Please refer to the correspondence dated February 12, 2015 between yourself and Laura D'Costa (DND Project Manager) regarding this item. No further correspondence was received and the record is considered complete and accurate. The 2014 letter and monitoring reports has not yet been sent as final reports are still under development. Should anything other than the February 12, 2015 correspondence still be required, please advise Laura D'Costa and myself as soon as possible so that we may address it. Also for reference is a copy of our monitoring schedule.

Please contact me with any questions or concerns you may have.

Regards,

[<http://www.nwb-oen.ca/signatures/bmaccarl.jpg>]