



8 Wing Environmental Management  
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28 November 2024

Licensing Department,  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, Nunavut X0B 1J0

**Re: DND RESPONSE TO THE NUNAVUT WATER BOARD LETTER:  
LICENCE NO: 8AC-ALT1929, TYPE "A"; DEPARTMENT OF NATIONAL  
DEFENCE; 2023 ANNUAL REPORT REVIEW - PART 2**

Dear Licensing Department,

The Department of National Defence (DND) - 8 Wing Trenton Environmental Management Office is providing this response letter to the Nunavut Water Board (NWB) and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Review Comments for 2023 Annual Report, 8AC-ALT1929, Canadian Forces Station Alert Project dated July 29, 2024.

DND - 8 Wing Trenton Environmental Management Office appreciates the dedicated efforts of the NWB and the constructive recommendations by CIRNAC to collaborate and review the annual report for CFS Alert.

Several deadlines for response were indicated in the technical review. This specific letter is in response to R-1, 3,6,7,8 CIRNAC, R-10 ECCC and R-11 NWB which have a response deadline of October 31, 2024.

DND - 8 Wing Trenton Environmental Management Office's responses to the NWB/CIRNAC/ECCC Recommendations:

R-1: CIRNAC recommends that the licensee provide an actionable plan for addressing the exceedances to reduce the number of overall exceedances and mitigates the issues by removing the source of these exceedances.

**DND Response:**

DND has commissioned a third-party study to look at the source of the metals exceedances at CFS Alert. As depicted (Table 3) in CIRNAC's technical review letter dated May 16, 2024, many of the exceedances on the station are associated with metals.

DND has conducted a two year study, which started in 2023, to establish the origin of these metals exceedances. A Final Report, along with study rationale and findings/ recommendations will be issued along with the 2024 Annual Report. It is DND's understanding that these metals are natural occurring on the site. Samples of the bed rock and surrounding silt/ soil have indicated that the current criteria is too stringent and will need to be adjusted to site specific background levels. We have asked the third party consultant to recommend appropriate criteria for the site. Again, this will all be reported in the 2024 Annual Report and a subsequent addendum to the water licence request to increase the criteria to better align with actual background site conditions.

With regards to the elevated Total Suspended Solids (TSS) on some of the sites; spring freshet and steep elevations combined with the silty clay overburden have led to these elevated TSS readings. Again, as stated above, in these locations CFS Alert will always have elevated TSS readings due to the conditions on site outside of any anthropogenic causes.

Oil, Grease and Phenols exceedances are associated with sewage outfall and sewage terrace system. ALT-2 sewage outfall will always fail criteria. It is raw sewage with no treatment. Although the sewage terrace system Alt -3 does reduce some of the parameters through the course of the terrace, it does not comply with the stated Licence criteria/parameters. As such and indicated in DND's response R-5 issued 19 September 2024, DND is currently in the process of restoring/upgrading some of the retention/ walls in the sewage terrace. Work crews were on site this summer to survey the ground for next summer's full construction restoration. Moreover, DND has selected to design a new Sewage Treatment Facility. The design of the new system will start next fiscal year.

R-3: CIRNAC recommends that the licensee provide the missing quality data from station ALT-12, or provide a rationale for the information not being included in the 2023 Annual

DND Response:

ALT- 12 is the station's main contaminated soils landfarm. No water is ever discharged from this contained site. As part of the remediation process water is required to stimulate beneficial bacteria growth and part of the remediation or breakdown of hydrocarbons. Thus, water contained in the berm is used to treat and stimulate the breakdown of contamination at this location. No water leaves the containment cell, thus no samples are taken nor reported for this location since discharge is not required.

R-6 CIRNAC recommends that the licensee provide action plans to clean up or contain the spill as well as an action plan that would mitigate any future glycol spills.

DND Response:

In reference to the Glycol spill/release due to a line split on the de-icing truck which occurred in the transport building on 29 March 2023. DND has instituted two measures/ action plans to mitigate this accident from occurring again. We have instituted procedures to have a de-icing technician be on site during the warm-up of the truck. We have also requested that the floor drains in the building be covered when snow melting operations in the building are not required.

The spill location is in a known contaminated Federal Contaminated Sites Action Plan (FCSAP) location. Approximately 200 metres down gradient of the spill (Transport building), DND has installed an insitu remediation barrier for natural attenuation of contaminants of which this spill would have to cross, if biodegradation had not occurred up to that point.

R-7 CIRNAC recommends that the licensee provide an action plan to correct the deficiencies in the identified infrastructure.

DND Response:

In reference to ALT-8 storage tank farm berms, it is known that there is no secondary containment non-permeable liner. DND is in the process of replacing these tanks with new infrastructure and storage tank system.

DND is currently at 66% design for the new lower tank farm project. These drawing can be provided if requested. DND expects construction to commence in the summers of Fiscal Year 2027/28 for this project.

R-8 CIRNAC recommends that within 90 days, the licensee provide the required updated Water Management Plan in order to maintain compliance with the issued water license.

DND Response:

DNDs records indicate that the water management plan was submitted June 11, 2020. This may have been confusing as the document covers both the Water management plan and the Sewage management plan into one document. I have attached the plan to this email for review and comment.

R-10 ECCC recommends that the Proponent revise the Spill Contingency Plan to include quantity, storage information (i.e., containment measures), and spill response measures for glycol and any other hazardous substances that could spill or leak into the environment.

DND Response:

DND has revised the Spill Contingency Plan to include items reference.  
Please see attached Spill Contingency Plan PDF.

R-11 (NWB) The Board echoes the requirement from CIRNAC about the updated Water Management Plan in accordance with Part D, Item 11 of the Licence. The Board also acknowledges the Licensee's commitment to provide the required Plan in 2024 as noted in their response letter (dated October 18, 2023) to the 2022 Annual Report Review.

DND Response:

Please see response to CIRNAC R-8 above and attached management plan.

DND - 8 Wing Trenton Environmental Management Office is committed to work with the NWB, CIRNAC and ECCC; we are supportive of any teleconferences and technical meetings to collaboratively help provide and foster information sharing pertaining to the site.

Attached documents to this letter:

- 1) Alert Spill Contingency Plan
- 2) Alert Fresh Water Supply and Wastewater Management Plan

Should you have any further questions or comments, please do not hesitate to contact me.

Yours truly,

*Nathan Koutroulides*

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