



**Défence Construction Canada
Construction de Défense Canada**

Response to NWB Comments

On the

Operations and Maintenance Plan
Canadian Forces Station Alert, Nunavut

In support of the
Nunavut Water Board Licence
No. 3BC-ALT1015

8 February 2011



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**RESPONSE TO ISSUES RAISED BY THE NUNAVUT WATER BOARD
ON CFS ALERT WATER USE LICENCE O&M PLAN**

Phyllis,

Please find below our responses to the comments raised by the Board following the submission of the Operations and Maintenance Plan in support of licence No. 3BC-ALT1015. Supporting figures are attached as PDF files, which can be expanded for better viewing.

Issue No. 1

No information is provided about the management of sludge along the flow path.

Response:

Based on the estimated volume of solids expected to be associated with the effluent, and the area of terrain contained within the terrace system (wastewater treatment system), even if one assumed that all TSS was captured within the system and none was subject to bacterial digestion during the summer, there would still be minimal annual build-up.

If after several years of continuous operation it is determined that the deposition of biosolids is impeding the function of the system, the solids will be redistributed within the terrain system.

Issue No. 2

An as-built drawing design drawing stamped by an Engineer is not provided for the landfarm.

Response:

The landfarm was constructed in the summer of 2007 to remediate soils contaminated by a JP-8 fuel spill in 2006. While engineering drawings were created for the construction of the facility, they were not stamped. The licence was received in 2010; therefore the landfarm significantly pre-dates the licence.

Issue No. 3

As-built drawing for the CFS Alert Wastewater Treatment Plant is not stamped by an Engineer



Response:

We have provided, with our response, the engineer stamped 'Issued for Construction' drawings for the wastewater treatment system, to compliment the as-built drawings provided by the consultant following construction of the system. There were no substantial changes between the design and the built system, as is reflected in the 'as-built drawings'.

Issue No. 4

Figures 1 [site overview], 2 [Preliminary design, water system layout] and 4 [Landfarm] provided with the Plan are without scale.

Response:

- a) Please find attached an electronic file that provides a site overview of CFS Alert. This is a relatively old drawing, but it is the only one that can be found with a scale. Note that the terraced wastewater treatment system is not indicated on this drawing, but is provided in Figure 3.
- b) Please find attached an electronic file that provides detail and dimensions of the landfarm at CFS Alert.
- c) The water and wastewater piping layout was a drawing created by our consultant during the process of designing the wastewater treatment system. As the goal was to understand the piping layout, accurate scale was not a priority. There are no other drawings of the piping layout available.

If there are further questions or clarification required, please don't hesitate to contact me.
Contact information provided below.

Best regards,

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