



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

NWB File: 3BC-ALT1015  
CIDMS #: 452649

MAR 21, 2011

**Re: 3BC-ALT1015 – Operation and Maintenance Plan – Canadian Forces  
Station Alert – Qikiqtani Region – Defence Construction Canada –  
Department of National Defence.**

Please be advised that Indian and Northern Affairs Canada (INAC) have completed a review of the Operation and Maintenance Plan for 3BC-ALT1015 prepared by Defence Construction Canada for Department of National Defence. The Nunavut Water Board (NWB) circulated the Operation and Maintenance Plan for comments on February 21, 2011. All documents related to the application posted on the NWB ftp site under 3BC-ALT1015 were included in my review (See attached Technical Review Memo).

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4282 or by email at [Ian.Parsons@inac.gc.ca](mailto:Ian.Parsons@inac.gc.ca).

Sincerely,

*Original signed by*

Ian Parsons  
Regional Coordinator

Cc. Jim Rogers, Manager of Water Resources – Indian and Northern Affairs  
Canada, Nunavut Regional Office  
Peter Kusugak, Manager of Field Operations – Indian and Northern Affairs  
Canada, Nunavut Regional Office



## **Technical Review Memorandum**

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

From: Ian Parsons – Regional Coordinator, Indian & Northern Affairs Canada.

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**Re: 3BC-ALT1015 – Operation and Maintenance Plan – Canadian Forces Station Alert – Qikiqtani Region – Defence Construction Canada – Department of National Defence.**

### **Background**

Canadian Forces Station (CFS) Alert is located in Canada's High Arctic on the North eastern tip of Ellesmere Island, Nunavut. The closest community is the Hamlet of Grise Fjord located 780 km south.

### **Recommendations/Comments**

After reviewing the Operation and Maintenance Plan for CFS Alert 3BC-ALT1015 from Defence Construction Canada, INAC makes the following recommendations and comments.

#### **Operation and Maintenance Plan**

##### **Water Supply**

INAC believes, from CFS Alert's Water Supply system explanation that the water distribution lines are heated to prevent freezing and part of any unused water is returned to the water supply (Upper Dumbbell Lake) source. INAC thus requests clarification on whether: warmer water is returned to the lake; if so, how much water and at what temperature and is the temperature of the lake water being raised.



### Old Sewage System

INAC suggests that the licensee be reminded that an Abandonment and Restoration plan is required to be submitted to the NWB within six months after the license is issued for any on-site facilities no longer in use as per Part I Item 1 of the Water license 3BC-ALT1015.

### Sewage Treatment System Plan

INAC recommends that the Board remind the applicant that, direct disposal of raw sewage into the environment is prohibited. INAC recommends that the explanation of the design and operation of the sewage system be improved.

INAC also recommends that Defence Construction Canada (DCC) consider the construction of an initial holding cell to provide storage and retention time and incorporate the cell into the new terrace sewage treatment system.

In addition, INAC recommends that the licensee provide further clarification as to what happens with the accumulated ice and frozen effluent (sludge/blackwater) once it is removed from the sewage outfall.

### Solid Waste Management Plan

INAC recommends Defence Construction Canada minimize the potential surface runoff flooding the landfills so leachate potential is reduced. DCC could develop a plan to divert more of the surface runoff away from the land fill and provide the plan to the Board.

INAC reminds the applicant that the burning of camp waste/garbage is only permitted within an approved incinerator. Open burning is discouraged unless approved by the NWB.

### Hazardous Waste Management Plan

INAC has few issues with this plan.

### Landfarm Management Plan

INAC has few issues with this plan.

### Monitoring Program

INAC has few issues with this plan.



### Spill Plan

INAC recommends that the spill plan should include the names of on-site personnel, if possible, in the contact list and not just position titles.

### Quality Assurance (QA) and Quality Control (QC) Plan

INAC has few issues with this plan.

INAC also notes that although CFS Alert is located in an extreme environment, polluting the environment should be minimized and the fragile environment/ecosystem be protected.

INAC recommends that the applicant provide, to the NWB, all outstanding information pertaining to the operation and maintenance plans for 3BC-ALT1015 plans are approved by the NWB.

Cc. Jim Rogers, Manager of Water Resources – Indian and Northern Affairs  
Canada, Nunavut Regional Office  
Peter Kusugak, Manager of Field Operations – Indian and Northern Affairs  
Canada, Nunavut Regional Office