

2013 Annual Report to the Nunavut Water Board

Licensee: Department of National Defence – 1 Canadian Air Division
Licence: 3BC-ALT1015 Type “B”
Location: Canadian Forces Station Alert, Ellesmere Island,
Qikiqtani Region, Nunavut.

Report submitted by: Department of National Defence –
8 Wing/Canadian Forces Base Trenton –
8 Wing Environmental Management,
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Executive Summary

The 2013 annual report to the Nunavut Water Board (NWB) is a requirement under Licence Number 3BC-ALT1015 Type “B”, Part B, Paragraph 1. This annual report is for Canadian Forces Station (CFS) Alert, Nunavut. The Licence was issued on August 4th, 2010, to the Department of National Defence (DND) – 1 Canadian Air Division (1 Cdn Air Div), Winnipeg, Manitoba. As 8 Wing – Canadian Forces Base (CFB) Trenton, Ontario, oversees CFS Alert, 8 Wing Trenton will be filing the annual report on behalf of 1 Cdn Air Div.

For 2013, the average daily water usage at CFS Alert was 639 m³. This usage is above the 185 cubic meters daily water usage allowed by the NWB Licence. The daily water usage amount being reported is identical to the daily intake amount of raw water from the source at Upper Dumbell Lake. It should be noted that a large portion of this usage water is directly returned (raw and untreated) to the source concurrently to the intake process, the average return amount was 497 m³/day. This constant circulatory (return) flow of the raw water prevents freezing damages to the water pipelines. The average daily water consumption amount was 143 m³. The total annual quantity of water used in 2013 was 233,211 m³.

The Operation and Maintenance (O&M) Plan for CFS Alert, Nunavut, was revised and has been submitted in this annual report submission. The Spill Contingency and the Quality Assurance & Quality Control Plans were also revised and submitted as appendices within the O&M Plan. These plans were revised as a requirement due to the construction of a new landfarm treatment facility at ALT-10 (Day Tank Fuel Farm).

CFS Alert was inspected by the Aboriginal Affairs and Northern Development Canada (AANDC) Inspector on July 10-11, 2013. A compliance plan is included in this annual report. As required by the Inspector, a water licence amendment application is being submitted, at the same time as this annual report submission, to address: 1) the water usage amounts, and 2) to include the new landfarm treatment facility at ALT-10 as a new monitoring station within the Surveillance Network Program.

Hazardous wastes were backhauled from CFS Alert in 2013 for disposal outside of Nunavut in Ontario. Assorted hazardous wastes included: waste asbestos tiles, sulphuric acid, batteries, glycol, oils and fuel. All backhauled hazardous wastes were properly disposed by external contractors arranged by DND. Non-hazardous domestic wastes produced from CFS Alert were directed to the designated landfills (Main Station Landfill & Millionaire's Dump). All sewage and waste water were directed to the Sewage Terrace System.

Three spill events were reported in 2013 to the NT-NU Spill Report Line. The first report was a fuel release (851 L) within a building that was contained within the secondary containment system on March 21, 2013. The second report occurred on June 17, 2013, where hydraulic oil (4 L) had been released on to gravel from a broken hydraulic hose on a loader equipment. The third report occurred on August 27, 2013, where fuel (100 L) was released onto gravel due equipment malfunction at a newly constructed fuel pipeline air bridge. Detailed descriptions of these spill reports are included in the Annual Report. For all events, the Inspector from AANDC, the Enforcement Officer (Environment Canada), and the NT-NU Spill Report Line were immediately informed by DND.

The sampling requirements for the 2013 CFS Alert Surveillance Network Program were fully implemented as all monitoring program stations were sampled during runoff season (June). Subsequent runoff or ground seepage sampling could not be fully conducted in July and August due to typical summer evaporation of the polar desert climate. By mid-August, winter conditions had returned earlier than anticipated, effectively ending the sampling campaign. Only two monitoring program stations (runoff or ground seepage) could be sampled in July, and only one could be sampled in early-August. Continuous effort in timing and planning will be made to ensure a successful 2014 CFS Alert Surveillance Network Program reflecting DND's positive commitment to demonstrating compliance to the NWB Licence.