



**INSPECTOR'S DIRECTION**  
**Pursuant to Section 87(1) of the Nunavut Waters**  
**and Nunavut Surface Rights Tribunal Act**

**To:**

**John Hussey**  
**Chief Administrative Officer**  
**City of Iqaluit**  
**Box 460**  
**Iqaluit, Nunavut XOA OHO**

**March 5, 2013**

**- Inspector's Direction -**

I, Andrew Keim, a duly designated Inspector under subsection 85(1) *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (the "Act"), have reasonable grounds to believe that waters have been and may be used in contravention of subsection 11(1) of the Act and a condition of a licence, and that waste has been and may be deposited in contravention of subsection 12(1) of the Act and a condition of a licence, and that there has been a failure of a work related to the deposit of waste, and that the adverse effects of such use, deposit and failure are causing, or may cause, a danger to persons, property or the environment.

**REASONABLE GROUNDS FOR BELIEF**

I have personal knowledge of the matters set out herein except where I have stated these to be based upon my information and belief, and where so stated, I believe the same to be true.

My reasonable grounds for belief are as follows:

1. It is my information and belief that:

- The City of Iqaluit Water Treatment Plant ("Water Plant") and Sewage and Waste-Water Treatment Plant ("SWWTP") operate 24 hours a day, 7 days a week, and that the SWWTP discharges from the discharge pipe on a continual basis.
- The SWWTP is a primary treatment plant and receives waste water from the underground sewage and waste water utilidor that is connected via underground piping to buildings in the City, and also via trucked sewage and waste water that is pumped and transported via vacuum truck from buildings in the City and discharged at the SWWTP.
- The sewage received by the City of Iqaluit SWWTP is passed through a mechanical auger screen and salnes filter that removes the sewage solids (sludge). The sludge generated by the SWWTP falls onto a trailer located directly below the primary treatment room of the SWWTP. The trailer is unloaded in a designated area at the West 40 Landfill. The



sewage and waste water with solids removed is then pumped through a pipe into a drainage area that drains into Koojesse Inlet, Frobisher Bay, Arctic Ocean where it is naturally diluted by tides.

- The City of Iqaluit owns and operates the Water Plant and the SWWTP or has the charge, management, or control thereof.
  - The City of Iqaluit owns all effluent from the SWWTP, or has the charge, management, or control thereof, or has caused or contributed to the causation of the deposits of effluent from the SWWTP.
  - Mr. John Hussey, in his capacity as Chief Administrative Officer of the City of Iqaluit has the charge, management and control over the Water Plant, SWWTP and effluent discharged therefrom, or has caused or contributed to the causation of the operation of the SWWTP and deposits of effluent therefrom.
2. The City of Iqaluit had a type A Water Licence 3AM-IQA0611 ("**Water Licence**") issued by the Nunavut Water Board under the Act which authorizes the use of water and the deposit of waste with respect to a municipal undertaking. The Water License had terms and conditions applicable to this authorization. The City's Water Licence expired on July 15, 2012.
3. On October 1, 2012 I conducted a scheduled annual inspection of the City of Iqaluit's use of water and disposal of waste for municipal undertakings located within the City of Iqaluit in the Qikiqtani Region, Nunavut on October 1<sup>st</sup>, 2012. I was accompanied by Inspectors Curtis Didham and Ian Rumbolt from Environment Canada ("EC").
4. In the course of the October 1<sup>st</sup> inspection I made the following observations:
- I observed effluent discharging from the City of Iqaluit SWWTP effluent discharge pipe and the migration of this effluent south-east for approximately 100M into Frobisher Bay.
  - I attended the City of Iqaluit SWWTP effluent discharge pipe outfall location where I collected the following 6 samples:
    - one 500 mL wide mouth plastic bottle for testing of pH, Alkalinity, hardness, color, Nitrates and Nitrites as Nitrogen, Calcium, Magnesium, Sodium and Potassium;
    - one 500 mL wide mouthed plastic bottle for testing Total Suspended Solids, Ammonia and a visible Oil & grease screening;
    - one 250 mL Narrow mouthed bottle for testing the Biological Oxygen Demand ( 5 Days) or BoD5 Test;





- one 250 mL Narrow Mouth Bottle for testing for 26 metals including Mercury;
- one 1 L Amber/ Brown glass bottle for testing for Hexane Extractable materials (Oil and grease); and
- two 40 mL vials for testing for Benzene. Ethylbenzene, toluene and Xylenes ( BTEX).

These samples were secured within a plastic bag and placed within a cooler which was securely closed with tape and shipped the same day to Taiga Environmental Labs in Yellowknife NWT for analysis.

- I observed EC inspectors Didham and Rumbolt collect six 20 litre white plastic pails of samples for an LC50 bioassay analysis and three 500ml samples for a total suspended solids analysis, total metals analysis and ammonia analysis. All EC samples were collected near the City of Iqaluit SWWTP end of effluent discharge pipe.
5. On October 17<sup>th</sup>, 2012 I received a lab analysis report from Taiga Laboratory for the samples collected by me on October 1, 2012 near the City of Iqaluit SWWTP end of effluent discharge pipe. The lab analysis report indicated that effluent from the City of Iqaluit SWWTP contained total suspended solids (TSS) at a concentration of 112 mg/l, a biological oxygen demand (BOD) at a concentration of 158 mg/l, ammonia at a concentration of 29.1 mg/l and elevated metal levels.

These effluent discharge results exceed the maximum allowable effluent quality parameters permitted under Part E, Item 3 of the Water Licence.

6. On October 23, 2012 a lab analysis report was forwarded to me from EC Inspector Curtis Didham who received the results from the EC Laboratory in Edmonton relating to samples collected by EC on October 1, 2012 near the City of Iqaluit SWWTP end of effluent discharge pipe. These results indicated results for an LC50 bioassay analysis for these samples. The LC50 bioassay is a standard test for determining the toxicity of effluent to fish. Samples submitted are considered toxic or deleterious to fish if 50% or more of the test fish die during a 96 hour period. The EC lab analysis report indicated that the effluent samples submitted to the EC laboratory failed the 96 hour Rainbow Trout multi-concentration Bioassay test at 32% concentration.

This is a determination that the undiluted effluent sample from the City of Iqaluit SWWTP is acutely toxic under the "Rainbow Trout, *Oncorhynchus mykiss* (as per EC's Environmental Protection Series Biological Test Method EPS/1/RM/13) in contravention of Part E, Item (4) of the Water Licence.

7. It is my information and belief that the City of Iqaluit has not filed the following documents within the time period required under Part B of the Water Licence:
- an Annual Report to be filed with the Board no later than March 31 for the year following the calendar year being reported; and





- an application for Water Licence renewal one (1) year prior to the expiry of the Water Licence along with a complete water balance for Lake Geraldine prepared by an Engineer and an assessment of recharge needs for long term water demands.
8. It is my information and belief that the City of Iqaluit has not filed the following documents required to be filed with the Board under the Part E of the Water Licence:
- Part E, Item (10) Long-term Solid Waste Management Plan to be submitted to the Board for review by March 31, 2010.
  - Part E, Item (15), an addendum to the manual referred to in Part E, Item 11 that will include details for contaminated soils and hazardous waste, including, but not limited to: types, volumes ultimate disposal, emergency response, thresholds, and maximum amounts accepted to the facility.
9. It is my information and belief that the City of Iqaluit has not fully implemented Part F of the current Water Licence, Conditions Applying to the Construction, specifically:
- Part F, Item (5) Ensure that all construction of engineered structures will be supervised and field-checked by an Engineer in such a manner that the project specification can be enforced and, where required, the quality control measures can be followed.
  - The Licensee shall also ensure that the construction records of all engineered structures are maintained and made available at the request of the Board and/or an Inspector.
10. It is my information and belief that the City of Iqaluit has not fully implemented Part I of the Water Licence: Conditions Applying to Monitoring, specifically:
- Item (2) The City has not installed Signage to identify monitoring stations.
  - Item (3) The City has not notified the inspector when sampling is not completed..
  - Item (14) The City has not increased sampling frequency when effluent quality results indicate that the Effluent Quality Requirements provided in Part C have been exceeded, or as requested by the Board or the Inspector.
11. It is my information and belief that the City of Iqaluit has not fully implemented Part J of the current Water Licence: Conditions Applying to Abandonment and Restoration, specifically:
- Item (1) The City has not submitted to the Board for review, within 90 days of the effective date of the Water Licence, a conceptual





Abandonment and Restoration Plan for the West 40 Landfill site prepared in accordance with industry best practices.

12. On November 5<sup>th</sup>, 2012, in my capacity as the Water Resources Officer with the Nunavut Regional Office of the Department of Aboriginal Affairs and Northern Development Canada (AANDC), I issued a Record of Inspection Form to John Hussey and Paul Clow of the City of Iqaluit. This report noted my observations and identified issues of non-compliance as outlined in the items referred to above save and except for the lab analyses of the samples collected on October 1<sup>st</sup> results from Taiga Environmental Labs and EC.

## MEASURES TO BE TAKEN

Under the authority given to me pursuant to subsection 87(1) of the Act, I hereby direct the City of Iqaluit and Mr. John Hussay in his capacity as the Chief Administrative Officer for the City of Iqaluit to immediately take all reasonable measures to prevent the use of water or deposit of waste in contravention of subsections 11(1) and 12(1) of the Act or of a condition of the Water Licence and to counteract, mitigate or remedy the adverse effects of any such deposit causing, or which may cause, danger to persons property or the environment, including, without limitation:

- (a) *To rectify existing non-compliance with the Act and the Water Licence including the observed occurrences of non-compliance set out above.*
- (b) *To submit any and all outstanding documents, plans and reports due to the Nunavut water Board and/or the Inspector by August 30<sup>th</sup>, 2013.*
- (c) *To undertake such work as is required to ensure that undiluted effluent discharged from the SWWTP meets applicable Water Licence discharge criteria as soon as is reasonably possible, and in any event, by no later than December 31<sup>st</sup>, 2018.*
- (d) *To develop and submit a report to me Andrew Keim or a successor AANDC Water Resources Officer, in writing, no later than July 3, 2013 on the City's plans to address this non-compliance. This plan shall specify the proposed method to manage the Sewage and Wastewater effluent and/or the planned changes to the SWWTP and shall include a detailed chronology of the short and long term progress, measures and activities that have and will be taken and provide dates when each progress measure and activity was initiated and concluded such that the SWWTP and all deposits of waste will be compliant with the Water Licence (as it may be amended, renewed or replaced from time to time), and the Act*
- (e) *To advise me, Andrew Keim or a successor AANDC Water Resources Officer, in writing, each calendar quarter of the measures that were taken in the previous calendar quarter starting as of the date hereof and continuing until such time as undiluted effluent discharged from the SWWTP meets applicable license discharge criteria on four consecutive sampling events.*





If you fail to comply with this Direction, an AANDC Water Resources Officer duly appointed under the Act may take the measures referred to and may, for that purpose, enter any place in Nunavut, other than a place that is designed to be used and is being used as a permanent or temporary private dwelling-place. Any portion of the reasonable costs incurred by Her Majesty in right of Canada for such action may be recovered as a debt due to Her Majesty from you.

Failure to comply fully or in part with an **Inspector's Direction** constitutes an offence under subsection 90 (1) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and may entail, upon summary conviction, a fine of \$100,000 or to imprisonment for a term of one year, or both.

Further pursuant to subsection 90 (4) of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, each day on which the **Inspector's Direction** is not complied with shall be considered a separate offence.

## THE LAW

***Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10,  
Assented to 2002-04-30***

### Definitions

4. “**waste**” means any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means, and includes
- (a) any substance or water that, for the purposes of the Canada Water Act, is deemed to be waste;
  - (b) any substance or class of substances specified by the regulations;
  - (c) water containing any substance or class of substances in a quantity or concentration that is equal to or greater than that prescribed by the regulations; and
  - (d) water that has been subjected to a treatment or change described by the regulations.

“**waters**” means, except for the purposes of subsection 41(2), inland waters, whether in a liquid or solid state, on or below the surface of land.



## **Prohibitions**

### **Use of waters**

11. (1) Subject to subsection (2), no person shall use, or permit the use of, waters in Nunavut except in accordance with the conditions of a licence.

### **Deposit of Waste**

12. (1) Subject to subsection (2) and except in accordance with the conditions of a licence, no person shall deposit or permit the deposit of waste

- (a) in waters in Nunavut; or
- (b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut.

### **Duty to report deposits**

12. (3) Where waste is deposited in contravention of this section, every person who owns or has the charge, management or control of the waste, or who caused or contributed to the deposit, shall, subject to the regulations, without delay report the deposit to an inspector.

### **Expiry or cancellation**

46. The expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence.

### **Remedial measures**

87. (1) An inspector may direct any person to take such reasonable measures as the inspector may specify, including the cessation of an activity, to prevent the use of waters or the deposit of waste or the failure of a work related to the use of waters or the deposit of waste, or to counteract, mitigate or remedy the resulting adverse effects, where the inspector believes, on reasonable grounds,

- (a) that
  - (i) waters have been or may be used in contravention of subsection 11(1) or of a condition of a licence,
  - (ii) waste has been or may be deposited in contravention of subsection 12(1) or of a condition of a licence, or
  - (iii) there has been, or may be, a failure of a work related to the use of waters or the deposit of waste, whether or not there has been compliance with any standards prescribed by the regulations or imposed by a licence; and





- (b) that the adverse effects of that use, deposit or failure are causing, or may cause, a danger to persons, property or the environment.

### **Powers of inspector**

87. (4) Where a person fails to comply with a direction given under subsection (1), the inspector may take the measures referred to in that subsection and may, for that purpose, enter any place in Nunavut, other than a place that is designed to be used and is being used as a permanent or temporary private dwelling-place.

### **Recovery of Her Majesty's costs**

87. (5) Any portion of the reasonable costs incurred by Her Majesty in right of Canada under subsection (4) that is not recoverable from the security furnished and maintained under section 76 may be recovered as a debt due to Her Majesty from the person to whom the direction was given.

### **Offences and Punishment**

90. (1) Any person who contravenes subsection 11(1) or section 12, or fails to comply with subsection 11(3) or with a direction given by an inspector under subsection 87(1), is guilty of an offence and liable on summary conviction to a fine not exceeding \$100,000 or to imprisonment for a term not exceeding one year, or to both.

90. (2) A licensee holding a type A licence who

- (a) contravenes any condition of the licence, where the contravention does not constitute an offence under section 91, or
- (b) fails, without reasonable excuse, to furnish or maintain security as required under subsection 76(1)

is guilty of an offence and liable on summary conviction to a fine not exceeding \$100,000 or to imprisonment for a term not exceeding one year, or to both.

### **Continuing offences**

90. (4) Where an offence under this section is committed on or continued for more than one day, it is deemed to be a separate offence for each day on which it is committed or continued.

### **Action to enjoin not prejudiced by prosecution**

93. (1) Notwithstanding that a prosecution has been instituted in respect of an offence under section 90, the Attorney General of Canada may commence and maintain proceedings to enjoin conduct that constitutes an offence under that section.

### **Civil remedy not affected**

93. (2) No civil remedy for any act or omission is affected because the act or omission is an offence under this Part.





## CONCLUSION

This Direction is **WITHOUT PREJUDICE** to any further course of action that AANDC may take with respect to any contravention of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, including an amended or subsequent Inspector's Direction, prosecution or injunction under any Act.

This Direction and the circumstances to which it refers will form part of AANDC's records of the City of Iqaluit and its responsible officials and will be taken into account in future responses to alleged contraventions of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and for internal purposes such as setting the frequency of inspections. AANDC will consider taking further action if you do not take all necessary corrective steps to comply.

AANDC will be conducting further inspections of the site to verify compliance under the Act and with the Inspector's Direction.

This Direction is issued in accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the City of Iqaluit Water licence. The complete text of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* is available at the Department of Justice website: <http://laws.justice.gc.ca/en/search>. The complete text of the Water Licence is available at the Nunavut Water Board Public Registry, which may be accessed through the Board's website: <http://www.nunavutwaterboard.org/en/>.

If you require further information, have any questions or concerns, or wish respond to the alleged facts contained in this Direction, please call or write to the undersigned at (867) 975-4289 or [Andrew.Keim@aandc.gc.ca](mailto:Andrew.Keim@aandc.gc.ca). Your comments will be considered, and where appropriate, a response provided. Any comments you make, as well as AANDC's response, will be maintained on file with this Direction in AANDC's records.

Andrew Keim  
Inspector

  
Inspector's Signature



**Cc:**

**Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board**

**Erik Allain, Manager of Field Operations, AANDC**