



DIAND Nunavut District  
Box 100  
Iqaluit, NT  
XOA OHO

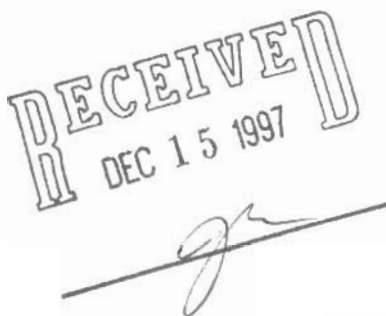
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Our file    Notre référence

November 18, 1997

B9545-5-N5L3-0087

Ms. Sara Brown  
Senior Administrative Officer  
Town of Iqaluit  
Iqaluit, NT  
XOA OHO



Dear Ms. Brown;

Re:    **Review of 1996 Annual Report and 1996 Compliance Review**

1.        The following is a summary of the review of the 1996 Annual Report. In addition, attached is a copy of the 1996 Compliance Report. Compliance Reports are prepared on an annual basis and are used to determine how the Licensee has complied with the terms and conditions of the water licence issued to them. Where shortcomings are noted, the Licensee is expected to address these shortcomings and provide any information requested.
2.        It is noted that some clauses of the licence have since been addressed, but as this is a review of a particular document prepared as of a certain date, it will necessarily not be up-to-date. In any reply prepared, these more recently addressed clauses should be noted.
3.        Part B (General Conditions) of the licence N5L3-0087 requires certain information to be submitted in the form of an Annual Report. The following is a summary of the requirements and how they have been met. If deficiencies were noted, a more detailed explanation is provided.

- Part B, Item 1 a)    Reporting requirements have been met. See Part B, Item 1 below.
- b)    Not applicable as noted facilities are not yet constructed.
- c)    Reporting requirements have been met.
- d)    See detailed SNP breakdown below.
- e)    Not applicable for the reporting period of this licence.
- f)    The Licensee has failed to meet this condition. See Part D, Item 6 below.
- g)    Reporting requirements have been met.
- h)    Not applicable as no updates have been made.
- i)    The Licensee has failed to meet this requirement. See Part D, Item 8 and 11 below.
- .../2

3. Part B, Item 1. The Licensee reports that the level of aluminum is above the recommended levels noted in the Ontario Drinking Water Objectives. Presently the Guidelines for Canadian Drinking Water Quality, as issued by Health Canada, are being reviewed for aluminum levels.
4. Part D, Item 6. This clause requires a summary of studies relating to waste disposal. The Licensee was, by September 1, 1996, to have submitted a plan for the improved sewage disposal and treatment facility. As this plan was not submitted, the Licensee has failed to include a summary.
5. Part D, Item 8. The Licensee has failed to submit a Terms of Reference for a study on sewage treatment options (wetlands treatment in particular). This study was due by April 1, 1996, but was not submitted by this date.
6. Part D, Item 11. This clause requires details to be reported on any other licence requirement. The Licensee was to have submitted, by June 30, 1996, a Spill Contingency Plan. To date this plan has yet to be submitted.

#### Surveillance Network Program

7. SNP, Part B, Item 1. Of particular concern with the data reported in this section is the use of the value ">1600" to describe the amount of faecal coliform in sewage samples collected for the months of June, July and October. It is so vague as to be meaningless. The use of this notation was rejected in the 1995 Compliance Report.
8. SNP, Part B, Item 2. Where is the June data for SNP Stations 0087-5, -6, -7?  
On June 11, 1996, I notified Sara Brown that water was running at SNP Station 0087-6.
9. SNP, Part B, Item 3. As noted above, PCB and PAH data should have been collected from 0087-6.
10. SNP, Part B, Item 5. Last year concerns were noted with the approval of the Novamann analytical techniques for the testing of **mercury** and **ammonia-nitrogen**. The Town is reporting these parameters, but has not yet provided information which will allow the Analyst to approve their methodology. In this 1996 Annual Report, no indication has been provided regarding who did the laboratory analysis. If it was a company other than Novamann, new approvals will have to be sought. Further clarification is required on the Town's part.

11. If you have any questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Smith". The signature is fluid and cursive, with the first name "Paul" and last name "Smith" clearly distinguishable.

Paul Smith  
Water Resources Officer  
Nunavut District

cc.     - Nunavut Water Board, Gjoa Haven  
          - DIAND Water Resources, YK  
          - MACA, Iqaluit (Tanya Smith)  
          - Public Health, Iqaluit, (Nicole Ritchie)

1996 COMPLIANCE REPORT

ON

CONDITIONS OF LICENCE NUMBER N5L3-0087

HELD BY THE TOWN OF IQALUIT

PREPARED BY

PAUL SMITH

INSPECTOR UNDER THE NORTHWEST TERRITORIES WATERS ACT

DIAND NWT REGION

NUNAVUT DISTRICT

IQALUIT, NT

DATE: NOVEMBER 19, 1997  
WATER REGISTER: N5L3-0087

Town of Iqaluit  
Water Licence N5L3-0087  
1996 Compliance Report

1. This Licence was issued on January 1, 1996 and expires on December 31, 1998. The Licensee is permitted to use 1,100,000 cubic metres of water per year. This is the first compliance report prepared under this renewed licence.

Compliance

Part B - General Conditions

2. (Item 1). The Licensee has not strictly complied with this section. The Annual Report was submitted on March 27, 1997. Shortcomings and outstanding issues with this report is detailed in the cover letter accompanying this compliance review.

3. (Item 2). Because there are compliance issues with the information provided as part of the Town's 1996 Annual Report, the above noted cover letter details these deficiencies.

4. (Item 5). This condition has not been met. The Licensee has indicated that these signs will be posted shortly.

5. (Item 6). The Licensee has complied with this condition.

6. (Item 7). The Licensee has generally complied with this condition.

Part C - Conditions Applying to Water Supply

7. (Item 1). The Licensee obtained all water from Lake Geraldine. The Licensee is in compliance with this section.

8. (Item 2). The permitted amount of water to be used is 1,100,000 cubic metres per year. The Licensee reported using 471,627 m<sup>3</sup> - well within their licence limits.

Part D - Conditions Applying to Waste Disposal

9. (Item 1). The Licensee is in compliance with this section.

10. (Item 2). The Licensee met the effluent discharge requirements during open water periods for the parameters of BOD, TSS and pH. Total coliform levels for August and September are within licence limits, but for the remaining months between June and October, faecal coliform levels are reported as 'greater than 1600'. This is not an acceptable form of measure. This concern was expressed in the last compliance review, but the Town did not address it. The licence limit is 1,000,000 CFU/dL.

11. (Item 3). As a result of the last inspection (October 7, 1996) the Licensee was going to establish a reference mark on a concrete structure in the lagoon such that a reference position could be made so as to ensure that a minimum 1.0 m freeboard could be maintained. At this time, the freeboard is not being maintained. The Licensee is requested to provide the recommendation granted by a qualified geotechnical engineer, per Part D, Item 3, of the licence that allows for a freeboard of less than 1.0 m to be maintained. At present the Licensee is not in compliance with this section.

12. (Item 4). Because the Licensee was not maintaining the 1.0 metre freeboard level, the lagoon was not being operated in a manner to prevent structural failure.

13. (Item 5). Apart from the concerns noted above, the Licensee has operated the lagoon facilities to the satisfaction of the Inspector.

14. (Item 6). The Licensee has failed to meet this condition in that the design proposal related to mechanical screening of sewage was not submitted to the Board for approval by the September 1, 1996 deadline. The Town was advised to notify the Board and request an extension. There is no evidence of a requested extension.

15. (Item 8). The Licensee has met this condition. The study proposal was submitted to the Board for their approval on April 1, 1996. The Board approved, with conditions, the proposal on May 29, 1996.

16. (Item 9). The Licensee has failed to meet this condition. The study was to be completed and submitted by no later than January 1, 1997. The report was not submitted until March 1997 (more than 3 months late).

17. (Item 10). The Licensee has failed to meet this condition. The Spill Contingency Plan, which was due for submission by June 30, 1996, has yet to be submitted.

18. (Item 12). The Licensee has met this condition. All solid wastes have been disposed of at the Solid Waste Disposal Facility.

19. (Item 13). The Licensee has failed to meet this condition. The Long Term Waste Management Plan, due for submission by January 1, 1997, has yet to be submitted. The Town has made no effort to advise or request an extension from the Board as a result of the delays.

#### Part E - Conditions Applying to Modifications

20. (Items 1-2). The Licensee is in compliance with these 2 sections.

21. (Item 3). Two modifications were made to the water supply system (1.5 m extension added to Lake Geraldine dam; addition of a treated water reservoir), but the Licensee failed to provide the as-built drawings within the 90 days allowed.

#### Part F: Conditions Applying to Abandonment and Restoration

22. (Item 1). Not applicable at this time.

23. (Item 3). The Licensee has failed to meet this condition. An A+R plan for Site 4 in the West 40 area was to have been submitted by January 1, 1997 (outside the time frame of this review). The Licensee was advised to contact the Board in order to explain the delays and request an extension. The Licensee did not do this in 1996.

24. (Item 4). Not applicable at this time, however, this A+R plan for the Apex waste disposal site is due on June 30, 1997.

#### Part G: Conditions Applying to Construction

25. (Items 1+2). Not applicable at this time. Examples of this type of work would include the dam extension on Lake Geraldine and the addition of the treated water reservoir. Both of these projects were designed the previous year.

#### Part H: Conditions Applying to Operation and Maintenance

26. (Item 1). The Licensee has met this condition.

27. (Item 2). The Licensee has not indicated any changes made to the O+M plan for the solid waste disposal facility. It should be noted that as a result of the October 7, 1996 inspection, the Licensee was directed to keep the valve of the discharge pipe from the waste disposal facility (SNP Station 0087-7) in the 'closed' position so that samples could be collected. The Licensee should have made this amendment to their O+M plan.

28. (Item 3). Not applicable at this time.

### Surveillance Network Program

#### Part B - Sampling and Analysis Requirements

29. (Item 1). The Licensee has not complied fully with this section. As noted in para. 10, there are problems with the reporting of faecal coliform levels.

30. (Item 2). The Licensee has not complied with this section. The Licensee has reported analysis for SNP station 0087-5 for the month of July and indicate that no run-off was present for the months of August, September and October (periods of flow). There should have been a sample collected in June and during the inspection of October 7, 1996, a sample was collected at this location by the Inspector. The Licensee is requested to address why these samples were not collected. In addition, the Licensee was advised on June 11, 1996, in writing, that there was flow at station 0087-6. No samples were collected by the Licensee.

31. (Item 3). The Licensee sampled for PCBs and PAHs at 0087-5. Stations 0087-6 and -7 were not sampled; mainly for the circumstances noted above.

32. (Items 4 and 5). The Licensee uses the services of NovaMann Intl. for their analytical lab work. Formal approval of this facility was granted on January 9, 1996. However, there are two parameters (ammonia and mercury) that no formal approval was granted due to insufficient information relating to quality performance. The Licensee was requested to address these shortcomings to achieve full approval for their laboratory services. To date this information has not been provided. The result of this is that for all SNP reporting the Licensee has provided this year, the values for ammonia and mercury can not be considered valid.

#### Part C - Flow Measurement Requirements

29. (Item 1). The Licensee has complied with this section.



### Conclusion

34. The Licensee has failed to comply with their licence on a number of points. The deficiencies noted are:

- |                  |   |
|------------------|---|
| Paragraph 10 -   | Units of measurements for feacal coliform are not appropriate.                  |
| Paragraph 11-12- | Failure to maintain a 1 metre freeboard at the sewage lagoon.                   |
| Paragraph 14 -   | Failure to submit a design proposal within specified timeframe.                 |
| Paragraph 16 -   | Late provision of report detailing wetlands sewage treatment option.            |
| Paragraph 17 -   | Failure to submit a spill contingency plan.                                     |
| Paragraph 19 -   | Failure to submit a long term waste management plan.                            |
| Paragraph 29 -   | See paragraph 10.   |
| Paragraph 30 -   | Inadequate sampling.  |
| Paragraph 32 -   | Failure to gain approval for Novamann Intl. To analyse for ammonia and mercury. |

Paul Smith  
Water Resources Officer  
Inspector under the NWT Waters Act  
Nunavut District