

MUNICIPAL INSPECTION REPORT

FOR

THE HAMLET OF TUKTOYAKTUK

WATER LICENCE N7L4-0714

SEPTEMBER 20, 1993

PREPARED BY

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NORTHERN AFFAIRS PROGRAM

INDIAN AND NORTHERN AFFAIRS CANADA

INUVIK, NT

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WATER LICENCE N7L4-0714**

INTRODUCTION

This Licence allows the use of water and disposal of waste at the Hamlet of Tuktoyaktuk, Northwest Territories. This Licence became effective March 1, 1984 and expires February 28, 1994.

An inspection of the water supply and waste disposal facilities was conducted by Scott Gallupe, Water Resources Officer, Inuvik, on September 20, 1993.

There were no changes to the water supply facilities. There were changes in the method of operation for the sewage lagoon.

The contact people for the inspection were Lucy Ross, Senior Administrative Officer and Peter Nogasak, Hamlet Foreman.

A. WATER SUPPLY

Water is obtained from Kudalak Lake and piped approximately 7.5 km to a large circular reservoir via an above ground/submerged 6" PVC pipeline. The Hamlet of Tuktoyaktuk purchased the raw water pumping facilities from Northern Underwater Systems in 1992. The Hamlet now has control of their water supply facilities except for maintaining the pumphouse and truck fill-up station at the reservoir.

The Hamlet has acquired a new pump at Kudalak Lake.

The reservoir had been filled by time of inspection and no problems were noted with the pumping operation. Records are kept by the Hamlet and are reported annually.

The raw water is chlorinated and fluoridated at the pumphouse at the reservoir. Chlorine and fluoride concentrations are checked weekly by DPW and records are kept at the reservoir pumphouse. The reservoir pumphouse was neat and tidy.

The intake at the reservoir is backwashed approximately once per month due to low suspended solids.

Water is distributed solely by tank and delivered by the Hamlet. There are meters in the reservoir pumphouse that record quantities pumped to the tank trucks. DPW was keeping records that they submit to the Hamlet.

Samples were taken at the reservoir, known as SNP 714-1, and results will be forwarded when available.

No problems were noted with the water supply facilities.

B. SEWAGE DISPOSAL

The majority of sewage is collected by vacuum truck and deposited at the lagoon located approximately 8 km southwest of the Hamlet. There are approximately nine (9) units on bagged sewage. There are two separate private contractors for sewage pumpout and bagged sewage pick-up.

Bagged sewage is deposited at a pit at the solid waste disposal site. The pit appeared satisfactory. However, there was a sign at the pit that was difficult to read. The Hamlet was asked to repair this sign.

There was considerable erosion noted beside the pumpout chute at the sewage lagoon again this year. It appeared that no maintenance had occurred at the pumpout chute. The Hamlet Foreman says that it is a high priority to repair this structure before freeze-up.

The sewage lagoon appeared a good green colour with little odour and no garbage visible in the lagoon. There were no noticeable leaks in the lagoon berm.

The sign at the sewage lagoon was in poor shape and difficult to read. The Hamlet was asked to repair this sign.

The Hamlet was decanting the sewage lagoon at the time of inspection. The Hamlet was following the terms in their Water Licence for the decant this year. The Hamlet has modified the decant structure to be a portable pumping operation over the lagoon berm where the old decant structure used to exist. The Hamlet is using a 3 inch trash pump with a 30 foot section of hose that pumps approximately 18,000 gallons a hour where the old decant structure used to discharge. Samples were taken prior to and during the decant of the sewage lagoon. This sampling station is known as SNP 714-2.

The Hamlet has submitted a letter dated September 21, 1993, with pictures, to satisfy Part E, Item 3 of their Water Licence, pertaining to as-built plans and drawings of the modification. The Hamlet was asked to submit a summary letter of this years decant.

C. SOLID WASTE DISPOSAL

The solid waste disposal site is located approximately 4 km southwest of the downtown core of the community and is on municipal lands.

The site appeared to be poorly maintained because of the large amount of wind blown debris within the site. Back-filling appeared to be infrequent and not contoured very well. The lack of proper contouring may have contributed to the site being poorly drained. There were some segregation signs however the segregated sites were poorly defined.

Garbage is segregated into domestic garbage, bulky metal waste and bagged sewage. Domestic garbage is crushed, compacted and covered as required. Bagged sewage is deposited in a pit at the site. The bagged sewage pit had at least 1-2 metres freeboard but was poorly posted. Bulky metal waste was being piled in a way as outlined in the Operations and Maintenance Plan to form a core for a berm. The Hamlet does not have the heavy equipment to compact the bulky metal waste.

Phase I of the clay core berm project was completed in mid-October 1992. Phase II, the placing of sand-bags, surveying and grading, was completed in the summer of 1993. The clay core berm was constructed to keep the storm tides from entering the site. The Hamlet has noted that the site has not flooded since the construction of the berm. However, an increase of run-off and precipitation water was noticeable at time of inspection. The berm had approximately 1-2 metres freeboard on the inside and ocean side.

The construction of the clay core berm is considered complete, however regular scheduled maintenance such as the replacement of sand bags will be necessary. This berm is considered a modification of the existing solid waste disposal facilities and has received proper Water Board screening and approval. The Hamlet was reminded to submit "as built" plans within ninety (90) days of completion of the modification.

It was suggested to the Hamlet that Part C, Item 1, of the Surveillance Network Program, concerning the Licensee to monitor and keep records of dykes at the lagoon, will be amended at Licence renewal time to include the berm at the solid waste disposal site.

The Inspector took a grab sample of the ponded water at the solid waste disposal site from the middle of the berm. Results will be forwarded when available.

The solid waste disposal site was posted.

D. SURVEILLANCE NETWORK PROGRAM (SNP)

All SNP requirements had been met at time of inspection.

E. POSTING

The water supply facilities were posted.

The sewage lagoon and the bagged sewage pit were poorly posted. The Hamlet was asked to improve these signs again.

F. ABANDONMENT AND RESTORATION

Municipal and Community Affairs GNWT did not conduct any more re-seeding projects at the reservoir or old solid waste disposal site in 1992. The natural vegetation seems to be gradually coming back at the old abandoned solid waste disposal site. The water reservoir had about the

same amount of vegetation as last year which is approximately 1%. There are no plans to re-seed in the immediate future.

G. OTHER CONCERNS

The Hamlet was reminded that their Water Licence expires February 28, 1994 and that their renewal application is being processed. The Hamlet will be notified if further information is required.

No other concerns were noted at time of inspection.

H. OFFICIAL ONSITE DISCUSSION

The terms and conditions of the Hamlet's Water Licence were discussed with Lucy Ross, Senior Administrative Officer, during and after the inspection.

The Inspector would like to thank Lucy Ross and Peter Nogasak for their cooperation and assistance.

Scott Gallupe
Water Resources Officer
Inuvik District