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Northern Affairs Program
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SEP 22 9:22 AM '86

September 2, 1986

Your file / Votre référence

Our file / Notre référence B9546-11-CP

Secretary Manager
Hamlet of Cape Dorset
Cape Dorset, N.W.T.

Department of Indian & Northern Affairs
Northern Operations Branch
SEP 22 1986
WATER MANAGEMENT
YELLOWKNIFE, N.W.T.

Attn: P. Harveson

Dear Sir;

Re: Inspection Report
Hamlet of Cape Dorset

Attached is a copy of the a/n Inspection Report for your review.

A copy of the analytical results of samples taken during the inspection will be forwarded to you when available.

✓ Insp Rep.
✓ file
IW.
Dist.

Yours truly

J.M.A. Theriault
District Manager
Baffin District

cc. [redacted]

INSPECTION REPORT

ON

THE HAMLET OF CAPE DORSET

JULY 31, 1986

by

HOWARD MADILL
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
FROBISHER BAY, N.W.T.

Date: Aug. 28/86

Water Register:
Hamlet of Cape
Dorset

INSPECTION REPORT - HAMLET OF CAPE DORSET

INTRODUCTION

On July 31, 1986, an inspection was conducted on the Hamlet of Cape Dorset by Howard Madill, Inspector under the Northern Inland Waters Act. Cape Dorset is located on Dorset Island off the southwest coast of Baffin Island. Current population of the community is approximately 860 people. This Hamlet currently does not have a water license. At the end of the inspection a meeting was held with Mr. Nowdlac Oshoweetok, Assistant Secretary Manager to discuss results of the inspection and future consideration for licensing.

INSPECTION

A. Water Supply

The water supply and related facilities were inspected. These include: Tee Lake, water intake assembly, water supply line, truck-fill building. Access was not gained to the heater house which is located on the water supply line at the high point in the system. This heater house contains three cirdulating water heaters which are used to heat the water during the pumping cycle in cold weather. In extremely cold weather a heat trace for the entire line is activated.

During the last winter the water supply has not been interrupted by freeze-up of the water line, but, in previous winters this was a problem. During this time water was hauled from a lake called Old Lake. This freeze-up problem is being dealt with by improved monitoring and quicker response to turn the heat trace on.

The truck-fill building contains a 20,000 imp. gallon holding tank and truckfill mechanism. Some garbage and debris was noted in this building. Javex is added to the truck tank as it is being filled to chlorinate the water. This method of water treatment was started one week before the inspection. Prior to this there was no water treatment. The number of truckloads delivered in the Hamlet is recorded.

B. Sewage Collection, Treatment and Disposal

Liquid sewage and bagged sewage is collected and disposed of in Cape Dorset. Liquid sewage is collected in holding tanks and hauled to the disposal area near the dumpsite via a vacuum truck. This disposal area is a pit with a dike on the side closest to the sea. near the center of this dike is a rip-rapped depression which serves as an uncontrolled decant. Bagged sewage is hauled

to a pit adjacent to the liquid sewage disposal area. Both disposal facilities are properly maintained and operating as designed.

C. Solid Waste Disposal

Metal waste is segregated from other garbage. At the time of the inspection a large accumulation of combustible garbage was being burnt. The dumpsite is periodically capped and leveled. There is one abandoned dumpsite near the metal dump.

D. Fuel Storage

P.O.L. fuel storage facilities south of the townsite were of an acceptable design and were maintained properly.

E. Surveillance Network Program

Water samples were collected from Tee Lake, the Hamlet's freshwater supply.

F. Posting

The Hamlet of Cape Dorset does not have a water license, hence, there is no posting requirement. However, it would be desireable to post signs at the freshwater supply and waste disposal areas to warn people of assosiated hazards.

G. Records and Reporting

Not applicable.

H. Contingency Planning

Not applicable.

I. Restoration

An old dumpsite near the seashore has been leveled and capped, however there is exposed garbage around the perimeter, it would be desireable to have this covered as well.

J. Other Concerns

It is desireable that a community of this size have it's associated water supply and waste disposal facilities licensed pursuant to the "Northern Inland Waters Act".

K. Official On-Site Discussion

After the inspection a discussion was held with Mr. Nowdlac Oshoweetok, Assistant Secretary Manager. A brief description of results of the inspection was given. Overall, water use and waste disposal facilities are relatively well maintained.

Howard Madill

Howard Madill
Inspector Under the
Northern Inland Waters Act.

DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS

WATER RESOURCES DIVISION, YELLOWKNIFE, NORTHWEST TERRITORIES

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RESULTS OF LABORATORY ANALYSIS

LICENSEE/CLIENT	Hamlet of Cape Dorset	LICENCE NUMBER	N/A	LOCATION	Cape Dorset
DATE SAMPLED	July31/86	DATE IN	Aug 11/86	DATE OUT	Aug 28/86
LABORATORY NUMBER	60525				
	SAMPLED BY	Howard Mandill			
STATION NUMBER	CD-1				
Time of Sampling	11:00 am				
Depth of Sampling					
Rate of Flow					
pH (units)					
Conductivity (umhos/cm)					
Dissolved Oxygen					
Turbidity (NTU)					
Colour (colour units)					
Suspended Solids					
TDS, Residue					
Calcium					
Magnesium					
Total Hardness					
Total Alkalinity					
Sodium					
Potassium					
Chloride					
Sulphate					
Tot. Coliform (ct/100ml)					
Fecal Coli. (cnt/100ml)					
Fecal Strep. (cnt/100ml)					
Std. Plate Cnt (cnt/ml)					
BOD5					
COD					
Carbon, IC					
Carbon, TOC					
Ammonia Nitrogen (as N)					
Nitrite + Nitrate (as N)					
Total Kjeldahl N (as N)					
sphorus O-P (as P)					
sphorus Tot. (as P)					
Fluoride					
Total Cyanide					
Available Cyanide					
Sulphide					
Oil & Grease					
Phenols (ug/L)					
METALS (ug/L)					
Arsenic T					
Arsenic D					
Mercury T	0.09				
Cadmium T (DIG)					
Cadmium T (AE)	0.2				
Chromium T (DIG)					
Chromium T (AE)	L0.5				
Copper T (DIG)					
Copper T (AE)	6.4				
Iron T (DIG)					
Iron T (AE)	7.6				
Lead T (DIG)					
Lead T (AE)	0.7				
Nickel T (DIG)					
Nickel T (AE)	L5				
Zinc T (DIG)					
Zinc T (AE)	L15				
T (DIG)					
T (AE)					

NOTES:

Air Temperature:	+6 CC
Water Temperature:	+ CC

CD-1 is taken near intake of Water Supply Lake.

Results are expressed in mg/L except as indicated. T (DIG) and T (AE) refer to total digested and acid extractable respectively. L refers to less than. F indicates field analysis.