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Your file Votre référence

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Repulse Paul

August 13, 1994

Mr. Sheldon Dory Senior Administrative Officer Hamlet of Repulse Bay General Delivery Repulse Bay, N.T. XOC 0H0

Dear Mr. Dory:

RE: WATER INSPECTION - HAMLET OF REPULSE BAY

UNLICENSED COMMUNITY

Enclosed please find a copy of the recently conducted water inspection conducted by Dan Elliott, Water Inspector designated pursuant to Section 35.(1) of the Northwest Territories Waters Act. The inspection report is self explanatory as are the concerns related to the waste disposal facilities. As well, by way of this letter copies of this report have been forwarded to the Keewatin Health Board (attention Mr. Rob Kielly) and MACA of the GNWT.

Please be advised that as a result of recent Departmental reorganizations, the former Keewatin District has been assimilated and is now part of our Nunavut District. This change was brought about by the settlement of land claims in the area. The District Office is now located in Iqaluit and as such the administrative compliance of the water activities will now be undertaken by this office. The Rankin Inlet Sub-District Office will continue providing inspection services and local expertise for operations within your area.

The time taken by your staff, specifically Mr. Mapsalak and Mr. Angotingoar in assisting the Inspector during the course of his inspection was greatly appreciated.

Should you have any questions regarding the matters raised by the report please feel free to contact the undersigned at (819) 979-4406 or the Inspector, Dan Elliott at (403) 920-8258.

Sincerely

J.M.A. Theriault

District Manager, Nunavut District Department of Indian and Northern Affairs Canada

DME/

encl: Inspection Report

Water Resources Division cc: Keewatin Health Board Rankin Inlet Area Office

MACA

UNLICENSED WATER INSPECTION

ON THE

HAMLET OF REPULSE BAY, N.W.T.

ON

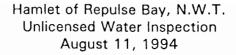
AUGUST 11, 1994

INDIAN AND NORTHERN AFFAIRS CANADA NUNAVUT DISTRICT RANKIN INLET AREA OFFICE RANKIN INLET, N.W.T.

by: Dan Elliott

Water Resources Officer

Water Register: UNLICENSED



Introduction

An inspection of the Hamlet of Repulse Bay's water supply, waste disposal and fuel storage facilities was conducted on August 11, 1994 by Dan Elliott, Water Inspector designated pursuant to the Northwest Territories Waters Act. Personnel contacted representing the Hamlet were; Mr. Steve Mapsalak, Acting Senior Administrative Officer, and Mr. Joe Angotingoar, Hamlet Foreman.

The Hamlet of Repulse Bay is located on the northern shore of Repulse Bay on the south shore of the Rae Isthmus. The Hamlet is approximately 1,416 air km northeast of Yellowknife in the Keewatin Region. The geographical co-ordinates of the community are 66° 32'N latitude, 86° 15'W longitude.

Repulse Bay achieved Hamlet status on July 01, 1978, and presently has a population of approximately 500. Repulse Bay has not been, to this date, licensed under the Northwest Territories Waters Act.

Inspection

A. Water Supply

The present freshwater source for the Hamlet is Nuvigsluqtujuq Lake which is located about 4.9 kilometres north of the community. Per conversations with the Environmental Health Officer for the Keewatin Health Board, the quality of the water poses no public health concerns with bacterial samples taken routinely and chemical analysis performed yearly. A semi-permanent, skid-type water pumphouse, truckfill station and generator facility is located at the lake. Two submerged water pumps and intake hoses extend into the lake. These intakes are screened to prevent any uptake of fish and are periodically checked.

Treatment consists of a demand type, chlorine injection system which engages when the truckfill is activated. The chemical storage for the treatment system is located within the pumphouse and all appears to be relatively neat and tidy. The pumphouse was unlocked at the time of the inspection.

Repulse Bay is under a fully trucked water distribution system contracted by the Hamlet council which trucks water to individual home storage tanks using a single water 4 500 litre water truck. The 4 500 litre truck operates 7 days per week 12 hours a day. Apparently the community is expecting an additional water truck this summer on the sea lift but it has yet to arrive. Once it arrives, the Hamlet council will decide whether or not to use both or to keep one as a standby unit.

The intake and treatment facilities within the pumphouse are generally operated in a clean efficient manner with signs posted indicating that the site is the location of the water supply and intake facility.

B. Waste Disposal

1. Liquid Waste

At present there are relatively few housing units which utilize honey bag collection systems (approximately 2 units). Sewage and bagged sewage is collected daily from individual holding tanks by a pumpout truck, contracted by the Hamlet. There is no active treatment of liquid waste and the volume of waste disposed is not recorded. Bagged sewage is trucked to the garbage dump and is disposed of along with the solid waste. There is no segregation of bagged sewage from the solid waste. The liquid pumpout is discharged to an area just adjacent to the solid waste at the disposal facility. The wastes flow downhill away from the landfill site to a rather sizable pond and then through a series of ponds to the Ocean (located approximately 1 mile away).

Apparently, the department of Municipal and Community Affairs of the GNWT is investigating the area with the intention of upgrading the sewage waste facilities in the community of Repulse Bay. Efforts should be taken to ensure the separation of the solid and liquid wastes thereby reducing the likelihood of increasing the adverse effects of the leachate arising from the continuous flow of the liquids over the burnt and unburnt solids. Furthermore, an evaluation should be undertaken to assess the "treatment efficiency" arising from the existing overland treatment, as well as a prediction of likely effects on the treatment efficiency as a result of the proposed "improvements".

2. Solid Waste

Garbage is collected regularly from individual homes with the Hamlet garbage truck and disposed of at the solid waste disposal site located 1.5 km north of the Hamlet. The combustible solid wastes are burned daily (assuming that the winds will not blow the smoke towards the community). Furthermore, the Hamlet compacts the remaining debris twice a year and the area receives a lift or gravel approximately once a year. Some larger materials, such as vehicles, barrels, household appliances and other noncombustibles are for the most part separated and are located at the beginning of the access road to the Solid Waste Disposal Area. Apparently they had attempted to bury some of the appliances but the pit had filled with water prior to the use of the pit. The Hamlet Foreman had indicated that they may yet pump out the water and fill the pit with crushed appliances. It was also evident that some of the bulky wastes had been pushed away from the road. Apparently this was part of an attempt to have these materials buried as well. As well efforts were evident of attempts to segregate the scrap lumber and other building materials for reuse by the local populace.

The site is not fenced, resulting in some windblown materials above the site. The area is not posted to indicate that the areas are waste disposal facilities (neither for the solid or liquid wastes).

C. Fuel Storage

The Hamlet of Repulse Bay has two main fuel storage facilities, with the largest site owned and operated by the GNWT, Government Service Petroleum Products. This facility is in a well maintained fenced area, with all tanks surrounded by a lined gravel berm. Government

Services has a pump distribution system for their fuel. The tanks being utilized contain P-50 diesel fuel, gasoline and Turbo "A".

The other fuel facility is owned and operated by the Northwest Territories Power Corporation in an unfenced area connected to the GNWT P.O.L. facilities. Fuel storage consists of several large P50 diesel fuel tanks. These tanks were surrounded by an unlined gravel berm. As a result of a spill last year, NTPC had at the time of the inspection, personnel on site constructing a steel lined berm area. This berm is similar to the berms they have in other communities. They were planning to start moving the tanks into the berm area that evening. The area of soil contamination was considered light but the material was not used for the pad for the steel berm area. The Inspector is unaware of plans to deal with the lightly contaminated soil (it may be left in situ to allow for natural degradation and evaporation of the hydrocarbons). Due to the construction activities the area was not as neat as is usual for the Power Corporation but was entirely understandable.

D. Records and Reporting

The Hamlet of Repulse Bay is an unlicensed community and therefore has no record or reporting requirements to submit at this time.

E. Surveillance Network Program

Since the community is unlicensed, there is no Surveillance Network Program that they must comply with, however the Inspector did take some samples at the freshwater intake area. These samples will be analyzed for general water chemistry, the presence of heavy metals and nutrients in the raw water. Once the laboratory analysis is completed the results will be forwarded to the Hamlet.

The Inspector would like to thank Messrs. Steve Mapsalak the Senior Administrative Officer and Joe Angotingoar, Hamlet Foreman.

Daniel M. Elliott

Inspector under the

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Northwest Territories Waters Act