

September 3, 1996

Ms. Denise S. Gruben
Project Manager
Michigan Department of Natural Resources
Ottawa Tower North, 3rd Floor
P. O. Box 30028
Lansing, MI 48909-7528

SUBJECT: NRC INSPECTION (REPORT NO. 040-09015/96001(DNMS)) AT THE MICHIGAN
DEPARTMENT OF NATURAL RESOURCES (MDNR) OWNED PORTION OF THE
HARTLEY AND HARTLEY LANDFILL, BAY COUNTY, KAWKAWLIN, MICHIGAN

Dear Ms. Gruben:

This refers to the routine safety inspection and pre-licensing site visit on August 8, 1996, of activities being conducted at the MDNR portion of the former Hartley & Hartley Landfill. The enclosed report presents the results of that inspection.

The inspection focused on the adequacy of security measures for buried radioactive materials and radiological postings of the landfill. The inspection consisted of observations of the site, independent measurements, and interviews with personnel. Based on the NRC inspectors findings, it was determined that the landfill site was being adequately maintained and protected.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original Signed by
R.J. Caniano for

Cynthia D. Pederson, Director
Division of Nuclear Materials Safety

License No. Non Licensee
Docket No. 040-09015

Enclosure: Inspection Report
No. 040-09015/96001(DNMS)

See Attached Distribution

A/5

Distribution

cc w/encl: D. Hall, Chief, Office of Litigation and Program Service
Michigan Department of Natural Resources
D. Minnaar, DW & RPD, MDEQ
M. Weber, DWM
P. Goldberg, NMSS

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DATE	08/30/96		08/30/96		08/30/96				

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U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Docket No. 040-09015

License No. Non-Licensee

Report No. 040-09015/96001(DNMS)

Non-Licensee: Michigan Department of Natural Resources (MDNR)
Saginaw Bay District Office
Stevens T. Mason Building
P. O. Box 300288
Lansing, MI 48909-7528

Facility: MDNR owned portion of the Hartley and Hartley landfill

Location: 2301 Two Mile and Beaver Roads
Bay County
Kawkawlin, MI 48631

Date: August 8, 1996

Inspectors: E. L. Kulzer, Radiation Specialist, RIII
G. M. McCann, Senior Radiation Specialist, RIII
J. D. Parrott, Project Manager, NMSS

Approved By: J. W. McCormick-Barger, Chief
Decommissioning Branch

EXECUTIVE SUMMARY

Former Hartley and Hartley Landfill (Now MDNR Landfill)
NRC Inspection Report 040-09015/96001(DNMS)

This was an announced visit of a license applicant's (MDNR) burial site to assess current site conditions. This toxic landfill contains magnesium thorium slag waste materials. The inspectors performed direct radiological survey measurements and assessed the adequacy of the site's posting and security provisions.

The NRC inspectors determined that site posting and security, in general, were adequate. The inspectors identified two concerns regarding excessive spacing under one gate and the lack of a secured cap on an offsite monitoring well. The applicant committed to address both concerns.

DETAILS

1. Background

The MDNR owns a 40 acre portion of land on the north side of the former Hartley and Hartley Landfill. The MDNR portion includes a landfill (1.8 acres) known to contain radioactive waste. The radioactive waste is assumed to be thorium contained in magnesium alloys, soil, sludge, sediment, trash, building rubble, etc. These materials were believed to have been buried at the site between 1950 and 1972, when the site was operated by Hartley and Hartley as a hazardous waste landfill. The contaminated slag is believed to have originated from the Wellman Dynamics Foundry in Midland, Michigan.

In 1972, portions of the Hartley and Hartley Landfill were acquired by SCA Services, Inc. (SCA) (NRC License No. SUC-01565) and the MDNR. Hartley and Hartley continued to operate the site until 1978, when operations at the landfill ceased.

In 1984, encapsulation measures were taken at the Hartley and Hartley Landfill and adjacent MDNR property to isolate the migration of toxic chemical wastes, along with the magnesium-thorium material.

MDNR submitted an application to the NRC dated September 1, 1995, requesting possession of uranium and thorium in any form. This application is currently being reviewed by the NRC's Division of Waste Management. The site is presently putting together a site characterization and decommissioning plan.

2. Posting, Security, Monitoring Wells and OSHA Considerations

A. Security

NRC inspectors in the company of MDNR staff, walked the perimeter of the landfill's security fence. With the exception of one area, (a gate near a monitoring well which was high enough for someone to slide under), the fence appeared to provide adequate security to the site. The MDNR staff indicated that they were going to use the fence contractor used by SCA Services, Inc., to have the problem corrected.

The NRC inspectors also discussed the potential for monitoring well contamination, associated with their finding a monitoring well outside the perimeter fence line of MDNR unlocked. The MDNR staff believed that another site contractor had left the well unlocked after collecting a water sample. Regardless, the MDNR staff indicated that they would secure the well immediately.

B. Posting

The NRC inspectors determined that the perimeter fence had "No Trespassing" signs posted on the four sides of the site fence. The inspectors also determined that permanent stone and metal markers were located on each of the four sides of the landfill site. These markers indicated the following: "WARNING DO NOT ENTER THIS FENCED AREA WAS THE SITE OF A CHEMICAL DISPOSAL FACILITY. THE GROUND CONTAINS CHEMICALS WHICH MAY BE TOXIC OR HAZARDOUS AND ALSO CONTAINS LOW LEVEL RADIOACTIVE MATERIAL. THE AREA HAS BEEN CAPPED AND SECURED. TRESPASSING IS STRICTLY PROHIBITED". Additionally, the southern side of the MDNR site fence was a common fence shared with SCA which was posted with "Caution Radioactive Materials" signs.

3. Independent Measurements

The NRC inspectors performed general area gamma survey measurements during the site tour using Ludlum Model 19 MicroR meters. The NRC inspectors did not identify any radiation levels greater than the background levels determined prior to entering the site area.

4. Exit Meeting

At the conclusion of the onsite inspection on August 8, 1996, an exit meeting was conducted with the individuals identified below. The NRC inspectors briefed the persons present regarding the preliminary inspection findings.

Persons Contacted

- * D. Gruben, Project Manager, Office of Litigation and Program Services, MDNR
- * M. Hartman, Environmental Quality Analyst, Environmental Response Division, MDNR
- * D. Hall, Chief, Office of Litigation and Program Service, Michigan Department of Natural Resources
- * D. Minnaar, DW & RPD, MDEQ

* Indicates those present at the onsite exit meeting held on August 8, 1996.