

October 18, 1995

SCA Services, Inc.
ATTN: Mr. Thomas Kern
Remedial Project Manager
1720 Newburgh Road
Livonia, MI 48152

SUBJECT: NRC INSPECTION (REPORT NO. 040-09022/95001(DNMS)) OF SCA SERVICES, INC., BAY COUNTY, MICHIGAN

Dear Mr. Kern:

This refers to the routine safety inspection conducted by Messrs. G. McCann and J. Parrott on September 18-19, 1995, of activities, authorized by NRC Licenses SUC-1565, at the SCA site located in Bay County, Michigan. The NRC inspectors were also assisted by Mr. David W. Minnaar, Division of Radiological Health, Michigan Department of Public Health. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

The inspection was an examination of activities conducted under your license as they related to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of a selective examination of procedures and representative records, observations, independent measurements, and interviews with personnel.

No violations of NRC requirements were identified during the course of this inspection.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter will be placed in the NRC Public Document Room.

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

Sincerely,

Original Signed By
J. W. McCormick-Barger, Chief
Decommissioning Branch

License No. SUC-1565
Docket No. 040-09022

Enclosure: Inspection Report
No. 040-09022/95001(DNMS)

See Attached Distribution

A/B

SCA Services, Inc.

-2-

Distribution:

cc w/encl: D. Minnaar, Michigan Department of Health
M. Weber, DWM
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bcc w/encl: PUBLIC (IE07)

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NAME	McCann <i>Ham</i>	Parrott <i>Ham</i>	McBarger <i>Ham</i>	
DATE	10/5/95	10/5/95	10/16/95	

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U. S. NUCLEAR REGULATORY COMMISSION
REGION III

Report No. 040-09022/95001(DNMS)
Docket No. 040-09022

Priority 1
License No. SUC-1565

Licensee: SCA Services, Inc.
17250 Newburgh Road
Livonia, MI 48152

Inspection Dates: September 18-19, 1995

Inspection Location: SCA Services, Inc.
2370 Two Mile Road
Bay County, MI 48706

Inspector: *J. W. McCormick-Barger for*
George M. McCann
Senior Radiation Specialist

10/18/95
Date

Inspector: *J. W. McCormick-Barger for*
Jack D. Parrott
Project Manager

10/18/95
Date

Accompanying Personnel: David W. Minnaar, Chief
Licensing and Registration Section
Division of Radiological Health
Michigan Department of Public Health (MDPH)

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

10/18/95
Date

Inspection Summary:

Inspection September 18-19, 1995 (Report No. 040-09022/95001 (DNMS))
Areas inspected: This was an announced routine safety inspection and licensing site visit conducted at the former Hartley and Hartley Landfill, which is now owned and controlled by SCA Services, Inc. The inspection focused on verifying access controls to the thorium storage site; verifying that proper postings were being utilized; performing independent radiation measurements; and observing drilling operations performed as part of the site characterization survey. The licensing site visit involved discussions regarding the licensee's proposed amendment request to install a leachate pumping and collection system and request to change the schedule for the required submittal of a decommissioning plan for the SCA site.

Results: No violations of NRC requirements were identified. The licensee's oversight of the burial site appeared to be professional and adequate. The licensee is currently evaluating the feasibility of the construction of a leachate collection and filtering system. This activity will require a license amendment and possibly increased NRC inspection activity during construction and initial startup of such a system. The license amendment is expected to be submitted in 1996.

One inspection followup item was identified as follows:

Exposed contaminated thorium-magnesium slag was identified which may require additional security measures, such as covering with dirt, to prevent inadvertent blowing or run-off of the contaminated materials, Section IV of this report (IFI No. 040-09022/95001-01).

DETAILS

1. Persons Contacted

- *T. Kern, Remedial Project Manager, SCA Services, Inc. (SCA)
- *P. Mazor, Radiation Safety Officer (RSO), SCA
- *R. Patchett, P.E., Project Manager, Rust Environmental & Infrastructure (RUST) (Contractor to SCA)
- *C. Shaw, Geologist, Site Characterization/Hydrology, RUST
- *W. Simms, Ph.D., Environmental Restoration/Remediation, RUST
- *J. Kisner, Radiological Controls Supervisor, OHM Federal Services, Inc. (Contractor to SCA Services, Inc.)

*Indicates those present at the onsite exit meeting held on September 18, 1995.

2. Background

The SCA site (subsidiary of Waste Management of North America, Inc. (WMNA)) was issued NRC License No. SUC-1565 on June 14, 1995. The license authorized possession of thorium and uranium (40 and 5 metric tons, respectively) in the form of contaminated soil, sludge, sediment trash, building rubble, etc. These materials were buried at the site between approximately 1950 and 1972, when the site was operated by Hartley and Hartley as a hazardous waste landfill. The slag is believed to have originated from the Wellman Dynamics Foundry in Midland, Michigan during this period. The SCA license authorized possession of licensed material to be handled during site characterization and decommissioning of the SCA site. SCA is required pursuant to license Condition 11.A to submit a decommissioning plan by May 31, 1996.

In 1972, portions of the Hartley and Hartley Landfill were acquired by SCA Services, Inc and the Michigan Department of Natural Resources (MDNR). Hartley and Hartley continued to operate the site until 1978, when operations at the landfill were stopped.

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

3. Organization

The SCA staff indicated that its organizational structure had not changed and that license documentation correctly represented its program.

No violations of NRC requirements were identified.

4. Licensee's Radiation Safety Program

A. Area Surveys

NRC inspectors interviewed the SCA RSO and health physics contractor staff and determined that radiation surveys were performed at the proper frequencies. The NRC inspectors observed SCA health physics staff perform routine surveys and personnel exit and equipment surveys. All personnel complied with required survey procedures.

NRC inspectors reviewed calibration data for survey equipment used by the health physics contractor staff and determined that meters were calibrated appropriately.

No violations of NRC requirements were identified.

B. Personnel Radiation Exposure Monitoring Programs

Interviews and observations by the NRC inspectors determined that all persons were assigned whole body badges in accordance with NRC regulations and license provisions. A National Voluntary Laboratory Accreditation Program (NVLAP) approved supplier provided dosimetry badges to SCA.

SCA dosimetry exposure data was reviewed for the years 1993-1994. Dosimeters were exchanged monthly. Review of the records indicated no unusual exposures and that the exposures were well below the 10 CFR Part 20 limits.

No violations of NRC requirements were identified.

C. Posting and Security

1. Security

NRC and MDNR inspectors in the company of SCA staff, walked the perimeter of the waste storage site's security fence. The fence appeared to be adequately maintained. SCA used a contract fence company which maintains fences around a number of "Super-fund" sites. This company performed quarterly checks of the fence and repairs any vandalism or weather damage.

Additionally, SCA employs a local resident on a part-time basis to check the office building and main gate area on an at least weekly basis.

No violations of NRC requirements were identified.

NRC and MDNR inspectors expressed concern regarding the patch of exposed magnesium-thorium slag in the current northwest corner of the fenced SCA property but not in the area designated in the license. The health significance of this area was minimal. However, the inspectors were concerned since the exposed material is subject to blowing, under dry conditions, and run-off, due to rain. The NRC will continue to monitor this issue during future inspections and consider this an inspection followup item (IFI No. 040-09022/95001-01).

2. Posting

NRC and MDNR inspectors determined that the number and placement of "Caution" signs on the SCA site security Fence were adequate.

No violations of NRC requirements were identified.

5. License Site Visit

On September 18, 1995, the NRC staff met with SCA Services, Inc., staff and contractors (see Section I of this report), to discuss project status and schedule and a proposal to apply for a license amendment for: 1) the installation and operation of a leachate collection and treatment system, 2) to revise the schedule for submittal of a decommissioning plan, and 3) to include the part of the landfill that contains exposed thorium slag as part of the identified licensed area.

SCA expects to submit their license amendment request by January 1996. SCA would like to receive the license amendment from NRC by July 1996, and plans to submit the decommissioning plan by April 1998.

6. Characterization Survey

NRC and MDNR inspectors, in the company of SCA personnel, observed boring operations into the landfill storage areas. In September 1995, the licensee submitted a characterization plan for performing intrusive drilling into the landfill site. The borings were an intrusive operation, that is, a milling rig bored holes approximately 15 - 60 feet deep into the landfill storage cells. SCA staff indicated that 45 holes were bored. Each hole was plugged after the logging survey to prevent leakage out of the cell.

Once the holes were bored, a computerized radiation scintillation measuring device was lowered into the holes. This device plotted a computer generated radiation profile log of each hole. NRC inspectors interviewed the individual performing the logs and determined that no readings above ambient background had been identified. The inspectors interviewed the individual while the last hole was being bored.

7. Waste Disposal

The only waste generated to date by the licensee was soil sediments collected during site characterization boring operations. The licensee reburied these materials in the waste cell cap. No wastes have been disposed of offsite.

8. Independent Measurements

NRC and MDNR inspectors performed general direct area survey measurements during the site tour. Ambient background for the microR meter was 4-5 microroentgens per hour (uR/h), and the background for the Ludlum GM was 40-50 counts per minute (cpm).

9. Radiation Instrumentation

NRC and MDNR inspectors used two survey meters for the above measurements: a Ludlum Model 3 (NRC Tag No. 045631, calibrated June 15, 1995) and a MDPH Eberline microR meter Model PRM-7 (Serial No. 328, calibrated February 27, 1995).

10. Exit Meeting

At the conclusion of the onsite inspection on September 18, 1995, an exit meeting was conducted with those individuals identified in Section 1 of this report to discuss the preliminary finding. SCA's management and employees did not identify any information provided during the inspection as proprietary.