

MATERIALS DECOMMISSIONING INSPECTION FIELD NOTES

Region III

Inspection Report No. 070-00133/96001

License Nos. SNM-00183 (Terminated)
C-3692, C-3790 (Terminated)
34-00653-01/02 (Terminated)

Docket No. 070-00133

Licensee: Clevite Corporation (former), presently Gould, Inc.

Facility: 540 East 105th Street
Cleveland, Ohio

Facility Contact: Mr. Raymond Pierce
Telephone No. (216) 851-5500

Date of Last Inspection: 10/25/95
Date of This Inspection: 08/29-30/96
Date of Next Inspection: on or before 02/97

Type of Inspection: ☒ (X) Announced ☐ () Unannounced
☐ () Routine ☐ () Special
☐ () Initial Decom. ☐ () Reinspection of Decom.
Level of Inspection: ☒ (X) Normal ☐ () Reduced ☐ () Extended

Brief Description of history on License/Facility:

Special Nuclear Material License No. SNM-00183 was issued to Clevite Research Center, Division of Clevite Corporation on March 10, 1958. This license authorized the use and possession of enriched uranium (EU) at its facility located at 540 East 105th Street in Cleveland, Ohio. The licensed activities included melting, alloying, forging, rolling, welding, pickling, machining, stamping, sintering, and chemical and metallographic analyses of EU powder and ceramic materials for the production and fabrication of fuel elements for nuclear reactors. The license initially authorized about 9 kilograms (kgs) of 90% EU, and subsequent amendments raised this authorization to nearly 56 kgs. An area on the first floor in the rear of the building was reserved for fuel fabrication.

Other research activities, covered under the Source Material License Nos. C-3790 and C-3692, authorized about 90 kgs of natural uranium and 5 grams of thorium sulfide, respectively.

Gould, Inc., the successor of Clevite Corporation, contracted with Severson Environmental Services, Inc. (Severson) to develop and implement a remediation/survey plan to render the property fit for release for unrestricted use. The contractor submitted the Site Characterization Survey/Termination Survey, Remediation, and Health and Safety Plan on May 10, 1995, and was authorized by NRC to proceed with site characterization in a

letter dated June 1, 1995. The site characterization is completed. Remediation was in progress, but is currently on hold pending NRC approval of the Site Characterization Report.

Brief Description of Inspection Activities:

The inspection consisted of: A physical survey of the remediated and unremediated areas, and a radiological survey of selected remediated areas was performed. Document reviews included records of training, radiation work permits, instrumentation, air sampling, contamination control, and waste storage, and a physical review of the posting and site security.

Brief Description of Findings and Action:

No major problems were identified during the inspection, however the record reviews indicated that the contractor was not currently implementing all of the requirements of the Health and Safety Plan. Although this lack of compliance with some of the requirements of the Health and Safety Plan did not appear to have a detrimental effect on the safety of the working environment for on-site personnel, the contractor should implement all of the requirements of the Health and Safety Plan as submitted to the NRC. Those portions of the plan which the contractor believes are not applicable, obsolete, or redundant should be identified and justification provided to the NRC for their removal from the Health and Safety Plan. In the letter to the property owner documenting this inspection, the NRC requested a written response in 45 days from the site owner describing its corrective actions.

Summary of Findings and Action:

- (X) No violations cited, regional letter issued (Non-Licensee)
- () Violation(s), clear NRC Form 591 issued
- () Violation(s), regional letter issued
- () Followup on previous violations

Inspectors: John E. House,
John T. Buckley

Date: 10/15/96

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

Date: 10/15/96

1. SUMMARY OF DECOMMISSIONING STATUS

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|----|---|-------------|
| A. | Licensee ceased operational program. | (X) Y () N |
| B. | Required decommissioning financial assurance mechanisms in place. | (X) Y () N |
| C. | Decommissioning Plan (DP) required. | (X) Y () N |
| D. | Contractor final survey required. | (X) Y () N |
| E. | NRC confirmatory survey required. | (X) Y () N |
| F. | NRC closeout inspection required. | (X) Y () N |
| G. | Licensee doing decommissioning planning and preparation before dismantlement. | N/A |
| H. | Licensee actively remediating site. | () Y (X) N |
| I. | Licensee completed site remediation. | () Y (X) N |

Description of Facility Status:

Site characterization completed. Remediation was in progress but is currently on hold pending NRC approval of the Site Characterization Report.

2. INSPECTION OF KEY DECOMMISSIONING ACTIVITIES

A. LICENSEE ACTIVITIES INSPECTED BEFORE DISMANTLEMENT

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|----|--|-------------|
| 1. | Licensed material used during operations has been removed from site. | (X) Y () N |
| 2. | Facility license conditions are in place and met by licensee. | N/A |
| 3. | Site security and control of contaminated material being maintained in compliance with 10 CFR 20.1801 and 20.1802. | (X) Y () N |
| 4. | Support systems and services (e.g., lighting, water supply) are in place. | (X) Y () N |
| 5. | Decommissioning schedules are consistent with timeliness requirements in 10 CFR 30.36, 40.42, and 70.38. | N/A |
| 6. | Licensee's recordkeeping is consistent with 10 CFR 30.35, 40.36, and 70.25. | N/A |

7. Financial assurance requirements are being maintained in accordance with 10 CFR 30.35, 40.36, and 70.25. N/A
8. Contractor is conducting site characterization in accordance with applicable radiation protection procedures. (X) Y () N
9. Construction of new site features (e.g., roads, rail spurs, staging areas, sediment control ponds) conforms to DP and does not compromise health and safety of workers and public. N/A
10. Licensee activities conform to specific license conditions and licensee programs and procedures. N/A
11. Other licensee activities: N/A

Basis for Findings:

The NRC inspectors conducted a radiological health and safety inspection, a review of remediation activity records of the site, and a limited radiological survey of remediated areas.

B. CONTRACTOR ACTIVITIES INSPECTED DURING DECONTAMINATION, DISMANTLEMENT, AND SITE REMEDIATION

1. Site security and control of contaminated material being maintained in compliance with 10 CFR Part 20. (X) Y () N
2. Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.). (X) Y () N
3. Decontamination and remediation of the following are being performed consistent with DP and sound industry practice:
 - a. Soil. N/A
 - b. Sediment. N/A
 - c. Surface waters. N/A
 - d. Groundwater. N/A
 - e. Other mediums:
4. Licensee release and disposal of decommissioning wastes are consistent with DP and approved by NRC for:

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|--|-----|
| a. Liquid wastes (e.g., groundwater, surface water, liquid from treatment ponds, process liquids). | N/A |
| b. Solid wastes (e.g., building materials, process and other facility equipment, concrete rubble, soil). | N/A |
| c. Other wastes: | N/A |
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5. Temporary, onsite storage of low-level radioactive wastes from decommissioning meets license conditions and guidance in IF 84890. (X) Y () N
 6. Packaging and shipment of radioactive waste materials meet requirements in 40 CFR Parts 173-178 and 10 CFR Part 71. N/A
 7. Restoration of site - Contractor has restored site to meet license conditions and NRC-approved plans. () Y (X) N
 8. Other licensee activities: N/A
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Basis for Findings:

Facility has NRC approved site characterization/remediation plan in place. NRC inspection as previously described.

C. LICENSEE ACTIVITIES INSPECTED AFTER COMPLETION OF SITE REMEDIATION

1. Licensee has submitted NRC Form 314 for disposition of licensed material in accordance with 10 CFR 30.36, 40.42, and 70.38. N/A
 2. Licensee's final survey program is acceptable (see Appendix B for inspection items for final surveys). N/A
 3. NRC confirmatory survey performed. N/A
 4. Site maintenance activities (if any, for restricted use) conform to license conditions and NRC-approved plans and are in place and functional. N/A
 5. Other licensee activities: N/A
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Basis for Findings: N/A

3. INSPECTION OF STANDARD HEALTH AND SAFETY AREAS FROM THE OPERATIONAL INSPECTION PROGRAM

A. GENERAL OVERVIEW

1. Describe the contractor's organizational structure:

Anthony Certo, Site Superintendent
Rory Grube, RSO

2. Contractor is performing decommissioning activities in compliance with remediation plan. () Y (X) N
3. Contractor is performing decommissioning activities in compliance with its approved DP. () Y (X) N
4. Contractor is implementing procedures for the decommissioning activities identified in the DP. (X) Y () N
5. The RSC and RSO fulfill license requirements to deal with all decommissioning activities. N/A

Basis for Findings:

Review of contractor's site characterization/remediation plan. Inspection of site including limited radiological surveys. All licenses have been terminated. Several areas of non-compliance with the Health and Safety Plan were identified including training of health physics technicians, preparation safety reports, and surveys outside of the site boundary. These issues were discussed with a contractor's representative at the conclusion of the inspection.

B. FACILITIES

1. Describe, from field observation, the contractor-identified facilities and outdoor areas to be decommissioned:

The areas to be remediated include portions of the first floor and one room on the second floor of the site at 540 East 105th St.

2. The contractor's remediation plan includes all the contaminated facilities and areas onsite and offsite. (X) Y () N
3. All essential systems and services (e.g., electrical power, water supply, communications systems) are in place and functional for the planned decommissioning activities. (X) Y () N
4. Licensee's emergency plan is in place and

operative for the duration of decommissioning. N/A

5. For complex sites needing site characterization, describe the key site characterization activities to be performed by the licensee to determine the nature and extent of contamination: N/A

6. Contractor's characterization activities performed in conformance with good industry practice. N/A

Basis for Findings:

The Site Characterization Survey/Termination Survey, Remediation, and Health and Safety Plan has been submitted and approved by the NRC. Remediation was in progress but is on hold pending NRC approval of the Site Characterization Report.

C. EQUIPMENT AND INSTRUMENTATION

1. Survey instruments are applicable to contaminants of interest. (X) Y () N

2. Use of survey instruments appropriate for site. (X) Y () N

Basis for Findings:

Inspection included a review of survey instruments and calibration records. A more detailed review of survey instruments and calibration data was documented in Inspection Report 070-00133/95001.

D. MATERIALS

1. Radioactive materials licensed during operations have been removed offsite; residual quantities conform to license conditions. N/A

2. Security and control of licensed materials, including contaminated areas, is being maintained. (X) Y () N

Basis for Findings:

Inspection of facility.

E. TRAINING

1. Contractor has developed training program for new decommissioning activities (e.g., demolition of structures, excavation of soil); program is adequate. (X) Y () N

2. Training program being effectively implemented. () Y (X) N

Basis for Findings:

The inspection disclosed a training issue (Letter to Property Owner) in which the contractor exempted health physics technicians from training that is required by the Health and Safety Plan.

F. AREA RADIATION SURVEYS AND CONTAMINATION CONTROL

1. Area surveys are being performed in areas being decommissioned. (X) Y () N
2. Where active remediation (e.g., demolition of structures, excavation of soil) is being performed, radiation levels in unrestricted areas do not exceed 2 mrem in any one hour. (X) Y () N

Basis for Findings:

Radiological surveys of remediated areas and discussions with contractor representatives.

G. RADIATION PROTECTION

1. The contractor's approved health physics program is being implemented in the field for new decommissioning activities. (X) Y () N
2. Site security and control of contaminated material are in compliance with 10 CFR 20.1801 and 20.1802. (X) Y () N

Basis for Findings:

Review of site security program indicated that security and required postings were adequate. Records and RWPs indicated that in general, the health physics plan was being followed. Minor areas of noncompliance are discussed in the cover letter.

H. RADIOACTIVE WASTE MANAGEMENT/EFFLUENTS/ENVIRONMENTAL MONITORING

1. Offsite disposal of decommissioning wastes conforms to free release criteria and disposal site requirements. N/A
2. All new effluent releases conform to DP and applicable regulations. N/A
3. The licensee's environmental monitoring program is being implemented in conformance with the DP and all applicable limits are being met. (X) Y () N
4. Temporary storage/staging areas for radioactive wastes

from building demolition, equipment dismantlement, soil excavation, etc., are adequately posted and protected.

(X) Y () N

Basis for Findings:

Site inspection.

I. RECORDKEEPING FOR DECOMMISSIONING

1. Copies of the licensee's decommissioning cost estimates and funding methods are on file. N/A
2. Licensee has adequate records for decommissioning activities performed (e.g., for decontamination and dismantlement of structures; decontamination and remediation of soil, sediment, surface waters, groundwater; surveys of remediated facilities). (X) Y () N
3. Licensee's financial assurance conforms with the financial assurance requirements of NRC-approved possession limits and NRC regulations. N/A

Basis for Findings:

Site inspection and records review.

J. TRANSPORTATION

1. Describe the licensee's program to package and ship decommissioning waste materials: N/A
2. Licensee's program meets all applicable 10 CFR and 49 CFR requirements for marking labeling, placarding, and shipping paper requirements for radioactive waste shipments. N/A

Basis for Findings:

Not Reviewed. Remediation is incomplete and no waste is being shipped.

K. POSTING AND LABELING

1. All contaminated areas, waste processing areas, and waste handling areas are posted in conformance with regulations. (X) Y () N
2. Packaged radioactive waste materials are labeled in accordance with regulations. N/A

Basis for Findings:

Physical inspection of the area.

L. OCCUPATIONAL HEALTH AND SAFETY

1. Describe the occupational health and safety observations made at the licensee's facilities:

Safety and health program appears to be good. People who were required to wear personal protective equipment on the site were following their health and safety program.

No major problems were identified during the inspection, however the record reviews indicated that the contractor was not currently implementing all of the requirements of the Safety and Health Plan. Although this lack of compliance to some of the requirements of the Health and Safety Plan did not appear to have a detrimental effect on the safety of the working environment for on-site personnel, the contractor should implement the requirements of the health and Safety Plan as submitted to the NRC. Those portions of the plan which the contractor believes are not applicable, obsolete, or redundant should be identified and justification provided to the NRC for their removal from the Health and Safety Plan. The Health and Safety Plan appeared to have been conservatively written and was overly detailed in some areas. The contractor may wish to review the plan's requirements and, using the ALARA principal, either modify or delete those parts that do not provide significant health and safety benefits. Areas of non-compliance will be reviewed during a future inspection.

2. Licensee and Occupational Safety and Health Administration were informed of occupational health and safety issues observed during the inspection.

() Y (X) N

Basis for Findings:

Physical inspection of the site. No OSHA safety issues were identified.