


U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 040-07708 (Terminated)
License No. SMB-0933 (Terminated)
Report No. 040-07708/96001(DNMS)
Licensee: Union Carbide Corporation (Former)
Location: Elkem Metals Company/Eveready Corporation Facilities
Highway 7
Marietta, OH
Date: December 17, 1996
Inspector: J. E. House, Senior Radiation Specialist
Accompanying Personnel: F. J. Talbot, Health Physicist
Ohio Department Of Health
Approved By: B. L. Jorgensen, Chief
Decommissioning Branch 

EXECUTIVE SUMMARY

Elkem Metals/Eveready Corporation

NRC Inspection Report No. 040-07708/96002(DNMS)

This was a routine periodic inspection of the Elkem Metals Company/Eveready Corporation facilities near Marietta, Ohio. The inspector toured the site, which is divided between the Elkem Metals Company and the Eveready Corporation. Site remediation at the Eveready facility had been completed and the final survey report was being prepared by the environmental consultant. Following NRC approval of the consultant's report, the NRC will schedule a confirmatory survey to be performed by the Oak Ridge Institute for Science and Education (ORISE). Data from this survey will determine whether the Eveready Corporation property can be released for unrestricted use.

The Elkem Metals Company facility (Building 78) had been remediated, but was being used for storage of the containers containing low level radwaste which was generated during the remediation process. Union Carbide Corporation (UCC), the former licensee, is negotiating for offsite storage of the radwaste containers. The portion of the site owned by Elkem Metals Company cannot be released for unrestricted use until the radwaste has been removed from the site and the confirmatory survey data demonstrates that the unrestricted release criteria have been met.

No new problems or issues were identified; radiological posting and facilities security were adequate.

DETAILS

1. Background

The Elkem/Eveready site, formerly the Union Carbide Corporation (UCC) Metals Division plant, is located about 10 miles west of Marietta, Ohio, on State Highway 7. UCC previously processed tin slag at this facility in the production of tantalum and niobium metals. The slag feedstock contained sufficient quantities of natural thorium and natural uranium to require an NRC source material license (SMB-0933). In the early 1980's, UCC conducted remediation activities and NRC subsequently released the site for unrestricted use and terminated the license in 1985. The site was then subdivided into two parcels and sold to Elkem Metals Company (Elkem) and Eveready Corporation (Eveready).

In 1992, Elkem identified radiation levels on the process equipment in Building 78. Independent surveys by the NRC and Ohio Department of Health confirmed the presence of contamination. Subsequent radiological surveys conducted by Chemical Waste Management, Inc. and Umetco Minerals Corporation (UMC), which was part of UCC, also confirmed licensable concentrations of natural thorium and elevated levels of natural uranium at this facility.

In 1994, UMC contracted with Norris Environmental to conduct remediation and final surveys of Building 78 and the surrounding area. A Final Status Report presenting the results of these activities was submitted to NRC in January 1995.

About 300 cubic yards of radwaste was generated from remediation of the Elkem site. This material was originally stored in metal (B-25) and wooden containers which were placed on the concrete "ore pad". When a property survey by the Eveready Corporation determined that most of the radwaste on the concrete ore pad was on Eveready property, the radwaste was moved from the ore pad to Building 78. This occurred on August 1, 1995. A survey of the ore pad after the transfer did not identify any radiation levels above background.

Inspectors from the NRC Region III office conducted a confirmatory survey of the concrete ore pad and surrounding areas to determine whether the Eveready Corporation property could be released for unrestricted use. The resulting NRC survey (Inspection Report 040-07708/95001) along with results from a survey conducted by the environmental contractor conducted prior to the NRC inspection indicated that there was contamination above the release limits and that further characterization and additional remediation of the Eveready Corporation facility would be necessary.

2. Facility Tours

The inspector toured Building 78 located on the Elkem Metals Company facility, and the ore pad area located on the Eveready Corporation property. Additional remediation on the area owned by Eveready Corporation (ore pad and surrounding areas) had been performed by the environmental contractor who indicated that the final survey report was in preparation and would be forwarded to the NRC for review. The inspector noted that the NRC would need to review the contractor's final report and accept its methodology and findings prior to scheduling a confirmatory survey by the NRC contractor, the Oak Ridge Institute For Science and Education (ORISE).

Although Building 78 (Elkem Metals) had been remediated, the environmental contractor noted to the inspector that a pit in the building, which had previously been drained and decontaminated, had since refilled with water. In addition, a small pit located near the building entrance, which had been dry, now contained water. The radiological status of these situations is unknown. There were 85 low level radwaste (B-25) containers, one 80 gallon overpack, and 24 55-gallon drums filled with low level radwaste from the site remediation activities stored in the building.

During discussions with Union Carbide and Elkem Metals representatives, the inspector noted that the portion of the site owned by Elkem Metals Company cannot be released for unrestricted use until the radwaste has been removed from the site and the confirmatory survey data demonstrates that the unrestricted release criteria have been met. The entire building cannot undergo the NRC confirmatory survey until the boxes of radwaste are removed; however, no time frame has been established for the removal of these waste containers because the former licensee has not selected a storage site for the material.

During the tour of Building 78, the inspector noted to Elkem and UCC representatives that building illumination was very poor, as most of the lights were inoperative, and that this should be addressed prior to the confirmatory survey. Facility representatives agreed that the lighting problem would be addressed prior to the confirmatory survey.

The building is not in use, except for radwaste storage. Radiological postings and building security were adequate.

3. Exit Meeting

At the conclusion of the inspection on December 17, 1996, the decommissioning status of the site and requirements for unrestricted release were discussed with facility representatives and the environmental contractor. The licensee representative did not identify any information discussed as being proprietary.

4. Persons Contacted

*J. Hughes, Environmental Supervisor, Elkem Metals
*S. Norris, Norris Environmental
*R. Melvin, Manager, Environmental Affairs, Elkem Metals

* Individuals present during the exit meeting on December 17, 1996.

5. Inspection Procedures Used

IP 83822: Radiation Protection

IP 87104: Decommissioning Inspection Procedure For Materials Licensees