

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
American Nuclear Corporation - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #10
Removal Progress
American Nuclear Corporation
C4N8
Clinton, TN
Latitude: 36.0433521 Longitude: -84.1837529

To: James Webster, USEPA R4 ERRB
Steve Sanders, TDEC

From: Carter Owens, OSC

Date: 7/2/2025

Reporting Period: 5/17/25 through 7/2/25

1. Introduction

1.1 Background

Site Number:	C4N8	Contract Number:	
D.O. Number:		Action Memo Date:	9/12/2023
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	11/15/2023	Start Date:	11/15/2023
Demob Date:		Completion Date:	
CERCLIS ID:	TNN000420811	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-Critical Removal

1.1.2 Site Description

The Site is a former radiological source manufacturing facility. Operations at the facility caused sitewide radiological contamination. The building remaining on-site contains a former machine shop, electronics lab, office, and a Hot Cell formerly used to load teletherapy sources. The Hot Cell is a shielded radiation containment chamber contained inside a second attached building on the east side of the facility. Key problem areas include the Hot Cell and the surrounding supporting building, drainage piping underneath the building, and contaminated soils.

1.1.2.1 Location

The Site is located at Blockhouse Valley Road, Clinton, Tennessee, 37716. The geographic coordinates of the Site are 36.043251 degrees north and 84.183476 degrees west. The Site is bordered by TVA and County-owned property. Melton Hill Lake and the Clinch River are approximately four tenths of a mile to the west, and Braden Branch Creek is approximately 50 yards to the south of the Site.

1.1.2.2 Description of Threat

Release of Cs-137 and Co-60 to the environment, as well as residual radiological contamination throughout the operations building containing the Hot Cell. Cs-137 and Co-60 are hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and are listed as hazardous substances in 40 C.F.R. § 302.4.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

See Initial POLREP.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The EPA has documented the presence of Cs-137 and Co-60 above site-specific RMLs within site soils and sediments. Gamma exposure readings inside the building indicate levels as high as 1500 times greater than background levels for the area. Cs-137 and Co-60 are hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and are listed as hazardous substances in 40 C.F.R. § 302.4.

2.1.2 Response Actions to Date

See Initial POLREP for previous actions

Response actions conducted during the reporting period of 5/17/2025 through 7/2/2025 consisted of the following items:

- Shipping of low-level soils and debris continues. As of July 2, 2025, a total of 231 additional intermodals have been shipped to WCS for disposal. This brings the project total between calendar year 2024 and 2025 to 489 intermodals, which equates to roughly 9,479 tons of contaminated soils and 866 tons of

contaminated debris. Two intermodals remain on-site, which will be loaded with remaining miscellaneous soil and debris during site restoration and will be shipped off-site the week of July 7th.

- Class C waste was consolidated in to 4 drums and packaged according to DOT shipping requirements and WCS waste acceptance criteria. The drums were loaded and shipped off-site for disposal on June 18, 2025 and certificates of disposal were provided by WCS on June 24, 2025. The prefabricated building which housed the Class C waste was demolished and placed in an intermodal for disposal as contaminated debris.
- Lead waste accumulated during the demolition of the Hot Cell and other structures within the building was packaged in macro-encapsulation bags, surveyed, and shipped to WCS on July 1, 2025.
- Equipment on-site continues to go through needs assessments and items under-utilized, or no longer needed, get deconned, screened for release by the RSO and returned to their respective rental company.
- Radiological survey sampling was completed in the bottom of excavation area. Delivery of clean back-fill to the Site began on June 30, 2025 and will continue until the excavation area is brought back up to initial grade. The Site will then be contoured to promote sheet flow of storm water to the on-site stormwater ditch. The ditch has been lined with rock check dams to ensure silt/sediment don't migrate off-site during heavy rainfall events.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

As of July 1980, the State of Tennessee had condemned and taken ownership of the ANC property. The State of Tennessee does not presently have resources or funds available to conduct a removal action at the Site and referred the Site to the EPA's Superfund program on July 15, 2022.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
C&D Debris	Debris	170 tons			Disposed as Non-haz
Rad Waste	Soil	9,479 tons			WCS LLRW
Rad Waste	Debris	866 tons			WCS LLRW
Rad Waste Class C	Drums	4			WCS CWF
Read Lead Waste	cubic ft	145			WCS LLRW

2.2 Planning Section

2.2.1 Anticipated Activities

- Finish loading and shipping radiologically contaminated soils and debris from the Site in 25-yard, lined intermodal containers by July 11, 2025.
- Conduct site restoration activities to close out the Site. Completion date estimated as July 25, 2025.
- Conduct final site survey. Completion date estimated as August 15, 2025.

2.2.1.1 Planned Response Activities

- Finish loading and shipping radiologically contaminated soils and debris from the Site in 25-yard, lined intermodal containers by July 11, 2025.
- Conduct site restoration activities to close out the Site. Completion date estimated as July 25, 2025.
- Conduct final site survey. Completion date estimated as August 15, 2025.

2.2.1.2 Next Steps

- Finalize site closeout and hand the Site off to State of Tennessee.

2.2.2 Issues

N/A

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2.3 Logistics Section

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2.4 Finance Section

2.4.1 Narrative

An Action Memorandum authorizing EPA removal activities has been approved for the Site.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$11,000,000.00	\$10,262,397.09	\$737,602.91	6.71%
TAT/START	\$228,806.00	\$77,646.50	\$151,159.50	66.06%
Intramural Costs				
Total Site Costs	\$11,228,806.00	\$10,340,043.59	\$888,762.41	7.92%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

An ERRS Radiation Safety Officer sub-contractor is on-site during removal activities.
The OSC continues to coordinate with the EPA Safety Officer and EPA-ERT Radiation Subject Matter Expert.

2.5.2 Liaison Officer

ERRS coordinates the receipt of equipment and supplies to the Site.

2.5.3 Information Officer

EPA's Public Information Officer coordinates community outreach and provides information to the public.

3. Participating Entities

3.1 Unified Command

EPA
TDEC

4. Personnel On Site

ERRS - Kemron
RSO - Solutient
EPA

5. Definition of Terms

ANC - American Nuclear Corporation
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act of 1980
Co- 60 - Cobalt 60
Cs-137 - Cesium 137
CWF - Compact Waste Disposal Facility
DOT - Department of Transportation
EPA - United States Environmental Protection Agency
LLRW - Low Level Radioactive Waste
RSO - Radiation Safety Officer
TVA - Tennessee Valley Authority
USAEC - United States Army Environmental Command
WCS - Waste Control Specialists

6. Additional sources of information

6.1 Internet location of additional information/report

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7. Situational Reference Materials

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