

RCRA Compliance Evaluation Inspection Report

1) Inspector and Author of Report

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2) Facility Information

U.S. DOE East Tennessee Technology Park
Highway 58 and Blair Road
Oak Ridge, Tennessee 37831
County: Roane

NAICS Code: 562910 Remediation Services
EPA ID No.: TN0890090004

3) Responsible Officials

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4) Inspection Participants

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Robin Moss, Waste Coordinator
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Raj Aiyar, Environmental Engineer
U.S. EPA Region 4

Pamela Rudd, Environmental Consultant
TDEC, Division of Solid Waste Management

5) Date and Time of Inspection

July 18, 2023, 8:30 a.m.

6) **Applicable Regulations**

Resource Conservation and Recovery Act (RCRA) Sections 3002, 3004, 3005, 3007 and 3008, (42 U.S.C. §§ 6922, 6924, 6925, 6927 and 6928)

40 Code of Federal Regulations (C.F.R.) Parts 260-266, 270, 273, 279

Tennessee Hazardous Waste Management Act TCA 68-212, Part 1 and 3, with the Used Oil Collection Act of 1993 TCA68-211, Part 10 and with the regulations adopted pursuant to those Acts.

As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.01(2)(a) [40 C.F.R. § 262.10], a Large Quantity Generator (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2200 lbs) of non-acute hazardous waste in a calendar month.

Pursuant to 40 C.F.R. § 262.17, a LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 68-212-108 of the THWMA, Tenn. Code Ann. § 68-212-108 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 40 C.F.R. § 262.17 (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-03-11 [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Section 68-212-108 of the THWMA, Tenn. Code Ann. § 68-212-108 [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Tenn. Comp. R. & Regs. 0400-12-03-24 [40 C.F.R. § 262.17(a)], except as required in Tenn. Comp. R. & Regs. 0400-12-01-.03-11 [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Tenn. Comp. R. & Regs. 0400-12-03-11 [40 C.F.R. § 262.15(a)] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.12(1)(b) [40 C.F.R. § 273.9], a Large Quantity Handler of Universal Waste (LQHUW) is a universal waste handler who accumulates 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.

7) **Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection (CEI) to determine at East Tennessee Technology Park (hereinafter, "ETTP" or the "facility") compliance with the applicable requirements of RCRA and the corresponding Tennessee regulations. This was an EPA lead inspection.

8) Facility Description

ETTP is one of the three complexes on the Department of Energy (DOE) federal reservation. The original mission of the ETTP was to enrich uranium in support of the US nuclear power and weapons programs. Once plant operations ceased in 1987, DOE ordered the facility's demolition. While the DOE is no longer conducting any manufacturing or uranium processing activities, the 1992 Federal Facilities Compliance Agreement requires the DOE Oak Ridge reservation to manage and dispose of their mixed waste under the site treatment plan while several Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) decision documents cover demolition and remediation activities.

The DOE owns the ETTP complex. The ETTP complex comprises of approximately 2,200 acres. United Cleanup Oak Ridge LLC (UCOR) is one of the DOE's cleanup contractors located at ETTP and currently manages all closure activities at the site under CERCLA. In support of operations at the Y-12 National Security Complex, Consolidated Nuclear Security (CNS) LLC also operates facilities at ETTP which include activities in support of the Uranium Processing Facility construction at the Y-12 National Security Complex. The core operating hours at most of the DOE sites are from 7:00 am until 3:30 pm, but most operators work 10-hour shifts Monday-Thursday.

In its most recent notification of annual hazardous waste generation to TDEC, ETTP identified itself as a large quantity generator of hazardous waste, a large quantity handler of universal waste, used oil generator and as a hazardous waste transporter.

HAZARDOUS WASTE STREAMS GENERATED:

EnergySolutions estimates the following hazardous monthly waste streams, in part.

<i>Waste Number/Name</i>	<i>Source</i>	<i>Waste Codes</i>	<i>Kgs Generated in 2022</i>
35/ Labpack, Flammable Liquids	Generated intermittently during plant and D&D operations at a maximum of 50 Kilograms (kgs) per month.	D001	15
36/ Labpack, Corrosive Liquids	Generated intermittently during plant and D&D operations at a maximum of 75 kgs per month.	D002	0
37/ Labpack, Corrosive Solids	Generated intermittently during plant and D&D operations at a maximum of 25 kgs per month.	D003	0
38/ Labpack, Poisonous Liquids	Generated intermittently during plant and D&D operations at a maximum of 4 kgs per month.	D001, D035	14
39/ Labpack, Poisonous Solids	Generated intermittently during plant operations at a maximum of 3 kgs per month.	D006	0
40/ Labpack, Oxidizing Substances	Generated intermittently during plant and D&D operations at a maximum of 40 kgs per month.	D001, D003, D004, D005, D006, D007	0
41/ Labpack, Hazardous Waste Liquids	Generated intermittently during plant and D&D operations at a maximum of 25 kilograms per month.	D010	50
42/ Waste Oils and Waste Oils	Generated regularly during plant operations and heavy equipment at a maximum of 100 kgs per month.	D001, D018, F001, F002	0

<i>Waste Number/Name</i>	<i>Source</i>	<i>Waste Codes</i>	<i>Kgs Generated in 2022</i>
Contaminated with PCBs			
44/ Paint Waste	Generated intermittently during plant operations at a maximum of 20 kgs per month.	D001, D018, D035	0
60/ Hazardous Waste Liquids	Generated intermittently during plant and D&D operations at a maximum of 1,000 kgs per month.	D030, D039	0
70/ Waste Liquids	Generated intermittently during plant and D&D operations at a maximum of 200 kgs per month.	D002, D003	0
71/ Waste Bases	Generated intermittently as part of the Best Management Plan and consists of waste samples and reagents for sample analysis at a maximum of 2 kgs per month.	P030, P098, P106. D001, D002, D005	0
82/ Waste Metallic Mercury & Mercury Products	Generated intermittently as mercury is removed from instrumentation and debris during D&D operations at a maximum of 2 kgs per month.	D009	0
84/ Waste Rags Contaminated with Solvents	Generated intermittently from material discovered during cleanup of laboratory and process areas at a maximum of 50 kgs per month.	F002, U226	0
93/ Lead & Lead Products	Generated intermittently during D&D operations at a maximum of 400 kgs per month.	D008	3,628
122/ Hazardous Waste Solid Bulk	Contaminated miscellaneous solids generated regularly from plant and D&D operations at a maximum of 500,000 kilograms per month.	D001, D006, D008, D009, D011, D018	1,250,556
123/ Wastewater-Reactive Solids	Intermittently generated during plant operations at a maximum of 2 kgs per month.	D001, D002, D003	0
125/ Waste Compressed Gas, Flammable	Generated intermittently from plant operations at a maximum of 5 kgs per month.	D001, D003	0
128/ Labpack, Flammable Solids	Generated intermittently from plant and D&D operations at a maximum of 3 kgs per month.	D001, D003, D005, D006, D007, D008	0
130/ Labpack, Flammable Corrosive Liquids	Generated intermittently from waste laboratory chemicals at a maximum of 2 kgs per month	D001, D002, D003, D004, D006, D007	0
131/ Waste Oxidizing Solids	Generated intermittently from material discovered during lab cleanup at a maximum of 50 kgs per month	D001	0
138/ Waste Flammable Liquids (Bulk)	Generated intermittently from plant and D&D operations at a maximum of 225 kgs per month.	D001	93
140/ Labpack, Hazardous Waste Solid	Generated intermittently from plant and D&D operations at a maximum of 20 kgs per month.	D001, D002, D003, D005, D007, D008, D009	13
141/ Mixed Freon Gases	Generated intermittently from plant operations at a maximum of 100 kgs per month.	D003	0
142/ Waste Corrosive Liquids (Bulk)	Generated intermittently from plant and D&D operations at a maximum of 40 kgs per month.	D002, D008	0
145/ Waste Oily Rags and Solids	Generated intermittently from plant operations at a maximum of 200 kgs	D004, D005, D006, D007, D008, D011	0

<i>Waste Number/Name</i>	<i>Source</i>	<i>Waste Codes</i>	<i>Kgs Generated in 2022</i>
	per month.		
149/ Waste Aerosol Cans	Regularly generated during plant operations at a maximum of 20 kgs per month.	D001, D003, D018	45
158/ Waste Batteries	Intermittently generated batteries that were used in plant equipment at a maximum of 25 kgs per month	D002, D008	11
163/ Waste Solvents	Generated intermittently from plant operations at a maximum of 500 kgs per month	D019, D021, D022, D028, D029, F002	0
175/ Waste Poison B (Bulk)	Generated intermittently from plant operations at a maximum of 56 kgs per month	D003, D039, U210, U223, U226	0
176/ Waste Treatability Study Returns	Generated intermittently from the return of treatability study samples at a maximum of 40 kgs per month.	F001, F002, F004, F005	0
184/ Waste Solidified Epoxy Coatings	Generated intermittently from plant operations at a maximum of 100 kgs per month	D001, D006, D018, D035	157

9) **Previous Inspection History**

ETTP was last inspected by TDEC on August 11, 2022, and the last EPA inspection was conducted on August 26, 2020. No deficiencies were observed at the time of the State and the EPA inspections.

10) **Opening Conference**

On July 18, 2023, approximately 8:30 a.m., EPA inspector Raj Aiyar, accompanied by TDEC inspector Pamela Rudd, arrived at New Hope Visitor Center on Scarboro Road in Oak Ridge, Tennessee. Upon arriving, the TDEC inspector contacted CNS personnel, Brad Skaggs, Manager, Solid Waste Compliance CNS, LLC Facility and also contacted UCOR personnel, Amanda Mize to announce the inspections and inquired about getting access to the ETTP complex for the purpose of conducting the site visits.

Brad Skaggs met us at the New Hope Visitor Center. The inspectors introduced themselves, showed their credentials and explained the purpose of the visit. Brad Skaggs after contacting the security personnel at the Visitor Center stated that the access to the CNS facility was regulated under the National Security Administration (NSA) policies which has some of the most stringent security policies and since the EPA inspector's credentials did not meet the security clearance requirements under the NSA policies, EPA could not access the CNS facility for the purpose of conducting the site visit. However, since the EPA inspector's credentials met the minimum-security requirement under Department of Energy (DOE) security policy, the EPA inspector proceeded with a site visit at the UCOR facility. The inspectors were also told that due to enhanced security, there were restrictions for photography at the site.

Since the EPA inspector had partial access for the purpose of conducting inspections at the ETTP complex, the inspectors in consultation with the Brad Skaggs and Amanda Mize decided to conduct an inspection at the UCOR facility first and the inspection at the CNS facility later by

the TDEC inspector.

The inspector met Amanda Mize, Kim Daviss and Robin Moss at the UCOR managed site. The inspectors introduced themselves, showed their credentials, explained the purpose of the visit and discussed the scope of the inspection. The EPA inspector discussed the facility's ability, pursuant to 40 C.F.R. §2.203, to assert a business confidentiality claim for information submitted to EPA. The facility did not assert a business confidentiality claim during the inspection.

The facility representative provided an overview of the facility's current operations and activities at the site. The inspection participants discussed the health and safety protocols and the required personal protective equipment. The facility representative later led the inspectors on a walk-through inspection of the facility's operation.

11) **Inspection Observations**

UCOR Area

UCOR manages the site closure activities at ETTP. Waste generated from those cleanup activities (e.g., solid, hazardous, mixed, polychlorinated biphenyls) gets managed in this area under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), under which the TDEC Division of Remediation has oversight (Rule 0400-1-15).

Inspectors observed the following CERCLA waste: two 90 cubic feet B25 metal boxes of mixed waste (circuit boards), one shipping container of waste chemicals, three 30-gallon containers of waste paint residue, one 30-gallon container of waste chemicals, one cabinet container of waste aerosol cans, and one 55-gallon drum of waste aerosol can residue. Inspectors found each container stored according to the applicable or relevant and appropriate requirements (ARARs), such as "hazardous waste" labeling, container closure, dating, and hazard indication markings.

UCOR also manages facility-generated universal waste and used oil in the same area. Inspectors observed two containers of waste lamps, two 5-gallon containers of waste batteries, two pallets of spent lead-acid batteries, and seven 55-gallon containers of used oil. The waste lamps and batteries were labeled "universal waste," closed, and dated to indicate less than one year of storage. The oldest accumulation start date for the universal waste is November 22, 2022. All used oil containers were observed to be closed and labeled "used oil." Inspectors also observed eight containers (30-gallon and 55-gallon) of non-hazardous waste stored in this building. The storage area is equipped with fire extinguishers, eye wash station, and spill kits. UCOR use radios and cell phones for emergency communication.

CNS Areas

Building 1065E: UPF Receiving

CNS manages this building to receive supplies in support of the Uranium Processing Facility (UPF) construction at Y-12. At central accumulation area (CAA) #3342, the hazardous waste generated primarily from the disposal of off-specification materials is stored. At the time of the inspection, the CAA was observed to be empty. The CAA was observed to be equipped with a

fire extinguisher, eye wash, and a spill kit. CNS personnel use cell phones for emergency communication.

Building 9830-16: UPF Fabrication Facility-600 Tent

In this building, CNS personnel performs welding and coating of structural components used for UPF construction at Y-12. At the CAA #3538, hazardous waste generated from the disposal of contaminated coatings is stored. At the time of the inspection, the CAA was observed to be empty. The CAA was observed to be equipped with a fire extinguisher, eye wash, and a spill kit. CNS personnel use cell phones for emergency communication. The inspector observed one 15-gallon satellite accumulation area (SAA#3409) container in this area. The container was labeled “hazardous waste,” closed, and marked with an indication of hazard (toxic, ignitable).

Building 9830-16 Laydown Yard

CNS uses this outdoor area adjacent to the UPF Fabrication Facility to store equipment and materials. In a secured containment locker, the inspector observed one 55-gallon SAA container containing waste paint residue. The container was labeled “hazardous waste,” closed, and marked with an indication of hazard (ignitable). Adjacent to the satellite accumulation containment locker, CNS also manages a storage area for used oil and used oil filters. The inspector observed two 55-gallon containers. One was used for storing used oil and the other 55-gallon container was used for storing used oil filters. Both the containers were closed, and the used oil container was marked with a “Used Oil” label. There was no leaks or spill observed near the containers. A nearby cargo shipping container serves as a universal waste storage area #3408. There were two boxes containing universal waste lamps. Both the boxes were observed to be closed, intact, labeled as “Universal Waste” and dated with an accumulation start date of May 3, 2023.

12) Record Review

The records were reviewed for a two-year period (2022-Present) included the following:

- 2022 and 2023 hazardous waste manifests
- 2022 hazardous waste annual report
- 2022 and 2023 weekly inspection logs
- Contingency plan with quick reference guide
- 2022 and 2023 annual hazardous waste training records
- Transporter Permit-Exp. January 31, 2024
- Hazardous waste reduction plan with a progress report-*March 2023*
- Waste Profiles

Based on the review of the records, the records were observed to be complete.

12) Closing Conference

EPA along with the TDEC inspector conducted an exit meeting for the UCOR facility. Amanda Mize, Kim Davis, and Robin Moss represented the UCOR facility. TDEC inspector conducted an

exit meeting for the CNS facility. Brad Skaggs, Rae Spencer, Laura Rufin, Roy Cribbs, Scott Nelson, and Parneet Kaur represented the CNS facility. The observations made during the inspections at both the facilities were discussed and the exit meeting was concluded.

13) **Signed**

RAJAGOPAL AIYAR

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Raj Aiyar
Environmental Engineer

Date

14) **Concurrence**

ARACELI CHAVEZ

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Araceli B. Chavez
Chief
RCRA Enforcement Section

Date