DOE/NV/03624--2100

FIRST QUARTER TRANSPORTATION REPORT FISCAL YEAR 2025

Waste Shipments to and from the Nevada National Security Site, Radioactive Waste Management Complex

This report was prepared for:
U.S. Department of Energy,
Office of Environmental Management
Nevada Program

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ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
CNR	Classified Non-Radioactive
CNRH	Classified Non-Radioactive Hazardous
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EM	Environmental Management
ft^3	Cubic Foot (Feet)
FY	Fiscal Year
LLW	Low-Level Radioactive Waste
MCEP	Motor Carrier Evaluation Program
MLLW	Mixed Low-Level Radioactive Waste
MSTS	Mission Support and Test Services, LLC
NNSA/NFO	U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office
NNSS	Nevada National Security Site
NNSSWAC	Nevada National Security Site Waste Acceptance Criteria
RWAP	Radioactive Waste Acceptance Program
RWMC	Radioactive Waste Management Complex

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INTRODUCTION

This report satisfies the U.S. Department of Energy (DOE) commitment to prepare a quarterly summary of waste shipments to the Nevada National Security Site (NNSS) Radioactive Waste Management Complex (RWMC) in Area 5.* This report summarizes the first quarter of fiscal year (FY) 2025 and serves as quarterly report for the following types of shipments:

- Low-Level Radioactive Waste (LLW)
- Mixed Low-Level Radioactive Waste (MLLW)
- Classified Non-Radioactive (CNR) Waste
- Classified Non-Radioactive Hazardous (CNRH) Waste

Tabular summaries are provided that include the following:

- Number and external volume of LLW, MLLW, and CNR/CNRH waste shipments
- Waste generators for LLW, MLLW, and CNR/CNRH waste shipments to and on the NNSS
- Carriers for LLW, MLLW, and CNR/CNRH waste shipments to and on the NNSS
- Waste generator shipments by quarter
- Shipment routes used by carriers
- Incident and accident data applicable to LLW, MLLW, and CNR/CNRH waste shipments

Volume reports using the Low-Level Waste Information System showing cubic feet (ft^3) of waste generated may vary slightly due to rounding conventions for conversions from cubic meters to ft^3.

Displayed waste volumes summations may vary between tables due to rounding to whole numbers.

Commercial motor carriers transporting waste to the NNSS must be identified on the DOE Motor Carrier Evaluation Program (MCEP) Evaluated Carrier List. DOE contractors who transport waste to the NNSS as private motor carriers have their motor carrier operations evaluated by DOE as part of the Transportation Safety and Operations Compliance Assurance Program. In addition, periodic self-assessments are required per DOE Order 460.2B, *Departmental Materials Transportation and Packaging Management* and the NNSS Radioactive Waste Acceptance Program (RWAP) routinely reviews motor carrier safety and performance to verify compliance with NNSS Waste Acceptance Criteria (NNSSWAC). Because commercial motor carriers and DOE contractors are commercial entities, their operations are also subject to periodic facility and over-the-road inspection by the U.S. Department of Transportation (DOT).

*The following is provided as an explanation on the drivers for this report. In response to comments on the 1996 SWEIS, the Department committed to "Prepare an annual report that includes, at a minimum, identification of carriers, sources and destination of each shipment, the number and volume of shipments, highway and rail routes used, incidents/accidents data, and an evaluation of each shipping campaign." Additionally, in the 2013 SWEIS (Volume 3, Comment Response Document, Page. 2-376), the Department further committed, "to assist the public in staying informed about waste shipments, the DOE/NNSA NSO publishes an annual transportation report and quarterly routing reports that identify shipment quantities, routes, origins, transporters, and incidents for all LLW/MLLW shipments to the NNSS." To ensure a consistent product the Department determined that the quarterly and annual reports would have the same outline, and that the fourth quarter report would contain a rollup of all data for the fiscal year and thus serve as the annual report.

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SUMMARY OF WASTE SHIPMENTS AND VOLUMES DISPOSED FOR THE FIRST QUARTER OF FY 2025

Total LLW and MLLW Received from Offsite Generators

A total of 182,381 ft^3 of LLW and MLLW was disposed at the NNSS by 14 approved radioactive waste generators in 169 shipments. These shipments were transported using eight MCEP-approved motor carriers.

Total LLW and MLLW Received from Onsite NNSS Generators

A total of 9,281 $ft^3$of LLW and MLLW was disposed at the NNSS by two approved radioactive waste generators in 13 shipments. These shipments were transported using one MCEP-approved motor carrier and government vehicles.

Total CNR/CNRH Waste Received

A total of 1,292 ft^3 of CNR/CNRH waste was disposed at the NNSS by two approved waste generators in two shipments. These shipments were transported using two MCEP-approved motor carriers.

Table 1 provides a summary of waste shipments and Table 2 provides a list of approved waste generators that shipped to or on the NNSS in the First quarter of FY 2025.

TABLE 1. NNSS INBOUND SHIPMENT SUMMARY FOR THE FIRST QUARTER OF FY 2025

INBOUND	OFFSITE GENERATORS	NNSS GENERATORS	CARRIERS	SHIPMENTS	VOLUME (ft^3)
LLW/MLLW (offsite)	14	0	8[c]	169[b]	182,381
LLW/MLLW (onsite)	N/A	2	2[a]	13	9,281
CNR/CNRH	2	0	2[c]	2[b]	1,292

[a] Government vehicles were used for the four MSTS onsite transfers.

[b] The 169 LLW/MLLW and two CNR/CNRH shipments include 26 classified shipments (22 LLW, two MLLW, one CNR and one CNRH).

[c] A total of eight motor carriers (listed in Table 3) were utilized between these shipment categories.

TABLE 2. APPROVED GENERATORS SHIPPING WASTE IN THE FIRST QUARTER OF FY 2025

	GENERATOR	GENERATOR CODE
1	Aberdeen Proving Ground	AP
2	DUF6 Conversion Project	DU
3	EnergySolutions	DR
4	Idaho National Laboratory – Advanced Mixed Waste Treatment Project	AM
5	Idaho National Laboratory – Battelle Energy Alliance	NE
6	Idaho National Laboratory – Idaho Environmental Coalition	IN
7	Los Alamos National Laboratory	LA
8	Mission Support and Test Services, LLC	DP
9	Navarro	IT
10	Oak Ridge National Laboratory (UT-Battelle)	OL
11	Oak Ridge Reservation (UCOR)	OR
12	Perma-Fix	PF
13	Portsmouth Gaseous Diffusion Plant	PO
14	TRU Waste Processing Center	FW
15	West Valley	WV
16	Y-12 National Security Complex	BW

2.1 WASTE TRANSPORTERS (MOTOR CARRIERS)

Motor carriers operate in compliance with Title 49 Code of Federal Regulations (CFR), "Transportation," and are selected by the waste generator. Generators may use multiple motor carriers during the year to facilitate their shipments. Table 3 provides a list of the approved carriers used to transport LLW, MLLW, and CNR/CNRH waste shipments to the NNSS.

TABLE 3. APPROVED MOTOR CARRIERS USED IN THE FIRST QUARTER OF FY 2025

	APPROVED MOTOR CARRIER	CARRIER CODE
1	Bennett Heavy & Specialized, LLC	BHAV
2	CAST Transportation	COLO
3	Hittman Transport Services, Inc.	HITT
4	Interstate Ventures, Inc.	ITSV
5	Reworld Buffalo Trucking	BUFI
6	Specialty Transport, Inc.	MAJH
7	Tri-State Motor Transit Co.	TSMT
8	Turnkey Technical Services, LLC	TNKA
	Government Vehicle*	GT+

* Government vehicles transporting waste shipments are fully compliant with DOT.

2.2 SHIPMENTS

Table 4 provides a summary of all offsite shipments of LLW and MLLW received at the NNSS during the first quarter of FY 2025. Table 5 provides a summary of NNSS onsite transfers of LLW and MLLW during the first quarter of FY 2025. Table 6 provides a summary of all CNR and CNRH waste shipments received at the NNSS during the first quarter of FY 2025. The three tables include a summary for FY 2025 in the "Total" column.

TABLE 4. OFFSITE SHIPMENTS OF LLW AND MLLW TRANSPORTED TO THE NNSS IN FY 2025

OFFSITE INBOUND SHIPMENTS	SHIPMENTS BY QUARTER				
Generator, State(s)	1st	2nd	3rd	4th	Total
Aberdeen Proving Ground, MD	1				1
DUF6 Conversion Project,	2				2
Energy Solutions, TN	2				2
Idaho National Laboratory – Advanced Mixed Waste Treatment Project, ID	2				2
Idaho National Laboratory – Battelle Energy Alliance, ID	16				16
Idaho National Laboratory – Idaho Environmental Coalition, ID	4				4
Los Alamos National Laboratory, NM	8				8
Oak Ridge National Laboratory – UT-Battelle, TN	2				2
Oak Ridge Reservation (UCOR), TN	35				35
PermaFix, TN, WA, and FL	20				20
Portsmouth Gaseous Diffusion Plant, OH	21				21
TRU Waste Processing Center, TN	2				2
West Valley, NY	22				22
Y-12 National Security Complex, TN	32				32
Total Shipments	**169**				**169**

TABLE 5. NNSS ONSITE TRANSFERS OF LLW/MLLW IN FY 2025

ONSITE TRANSFERS	SHIPMENTS BY QUARTER				
Generator, State	1st	2nd	3rd	4th	Total
Mission Support and Test Services, NV	4				4
Navarro, NV	9				9
Total Shipments	**13**				**13**

TABLE 6. CNR AND CNRH SHIPMENTS TRANSPORTED TO THE NNSS IN FY 2025

OFFSITE INBOUND SHIPMENTS	SHIPMENTS BY QUARTER				
Generator, State	1st	2nd	3rd	4th	Total
Idaho National Laboratory – Battelle Energy Alliance, ID	1				1
PermaFix, TN, WA, and FL	1				1
Total Shipments	**2**				**2**

2.3 TRANSPORTATION ROUTE REPORTING

DOE policy is to avoid shipments traveling through the I-15/I-11 interchange. The NNSSWAC includes wording requiring generators to notify their carriers to avoid this area and to select approved routes.

Shipments continue to be restricted from travel near the Hoover Dam. The NNSSWAC requires that waste transported to the NNSS, regardless of DOT classification, avoid the Hoover Dam Bypass Bridge (Mike O'Callaghan – Pat Tillman Memorial Bridge).

Recent quarterly and annual transportation reports may be found on the Internet at https://nnss.gov/mission/environmental-programs/radioactive-waste-management/.

Older reports may be obtained by contacting the Office of Scientific and Technical Information at https://www.osti.gov, or by phone at (865) 576-1188.

Table 7 provides details of waste shipment routes traveled to the NNSS for the First quarter of FY 2025.

Figure 1 provides a graphic depiction of waste shipment routes traveled to the NNSS for the First quarter of FY 2025.

TABLE 7. SHIPMENT ROUTES FOR THE FIRST QUARTER OF FY 2025

LOW-LEVEL, MIXED LOW-LEVEL & CLASSIFIED NON-RADIOACTIVE WASTE SHIPMENTS TO/ON THE NEVADA NATIONAL SECURITY SITE																		
FIRST QUARTER REPORT, FY 2025 (OCTOBER, NOVEMBER, DECEMBER 2024)																		
RouteType	Route Description	Route Legend	Origin State>>	ID	ID	ID	MD	NM	NV	NV	NY	OH	TN, WA, FL	TN	TN	TN	TN	TN	TN
			Total Shipments by Route	Idaho National Laboratory - AMWTP	Idaho National Laboratory - BEA	Idaho National Laboratory - IEC	Aberdeen Proving Ground	Los Alamos National Laboratory	Mission Support and Test Services	Navarro	West Valley	Portsmouth Gaseous Diffusion Plant	Perma-Fix	DUF6 Conversion Project	Energy Solutions	Oak Ridge Reservation (UCOR)	Oak Ridge National Laboratory - UT Battelle	TRU Waste Processing Center	Y-12 National Security Complex
SOUTHERN	I-40, US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95		104									21	12	2		35	2	2	30
SOUTHERN	I-40, US-95, NV-164, I-15, NV-160, US-95		18		7		1	8											2
SOUTHERN	I-40, I-15, NV-160, US-95		4										2		2				
SOUTHERN	I-40, I-15, CA-127, NV-373, US-95		4										4						
NORTHERN	I-80, US-93-ALT, US-6, US-95		27		4						22		1						
NORTHERN	US-93, US-6, US-95		12	2	6	4													
CALIFORNIA	I-15, CA-127, NV-373, US-95		2										2						
ON-SITE	On-Site Shipments	N/A	13						4	9									
	Total Shipments by Generator>>>		184	2	17	4	1	8	4	9	22	21	21	2	2	35	2	2	32
	Total Volume (ft^3) by Generator>>>		192,953	1,806	10,592	4,385	437	4,545	209	9,072	32,147	48,524	6,234	4,692	388	20,718	3,897	1,101	44,207

FIGURE 1. ROUTES TRAVELED TO THE NNSS IN THE FIRST QUARTER OF FY 2025

INCIDENT/ACCIDENT DATA

There were no incidents or accidents in the First quarter of FY 2025.

For the purpose of this report, incidents and accidents are defined as follows:

- **Incident:** An unintentional release of hazardous material from a package during transportation, load shift, or any occurrence during transportation in which any of the circumstances identified in 49 CFR 171.15(b) occurs (American National Standards Institute N14.27)
- **Accident:** An occurrence involving a commercial motor vehicle operating on a highway in interstate or intrastate commerce that results in a fatality; bodily injury to a person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or one or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicle(s) to be transported away from the scene by a tow truck or other motor vehicle (49 CFR 390.5[1])

Waste generators and carriers are dedicated to ensuring an appropriate response to all offsite transportation events involving DOE radioactive materials. In a memo to all waste generator sites on October 17, 2016, notification criteria was established to provide additional clarity to the requirements in the NNSSWAC. This reporting is consistent with DOE guidance, and will help to ensure the following:

- Receiving timely notification of all offsite transportation events to assure adequate response resources are assigned
- Notifying appropriate field response personnel and/or resources (including field sites, Radiological Assistance Program teams, and state and tribal contacts) if they have not already been engaged
- Having all potentially involved personnel prepared to respond to inquiries from the media, elected officials, or the public

Waste generators are instructed to notify NNSS Operations Command Center (OCC) whenever a discrepancy, non-compliance, or inadequate performance or if a transportation incident (including law enforcement directives requiring rerouting) or emergency situation occurs. OCC must be notified no later than one hour after the route deviation/incident with specific details.

MSTS, a contractor to NNSA/NFO, controls NNSS waste receipt and disposal activities and is responsible for notifying appropriate personnel regarding shipping discrepancies, incidents, or accidents.

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EVALUATION OF SHIPPING CAMPAIGNS

There were two transportation-related Priority 2 findings identified against Energy Solutions in December 2024, during a facility evaluation:

1. FP2-25-002-DRTK, Department of Transportation shipping paper notation requirement not met. Title 49 Code of Federal Regulations § 172.203(a).
2. FP2-25-003-DRTK, Conflicting requirements between generator procedures and forms.

This section contains a summary of the annual shipping campaigns with respect to the significance of the packaging or transportation incidents or accidents reported in Section 3.0 of this report. Waste generators must ensure that waste is packaged and transported in a safe and compliant manner as detailed in the NNSSWAC and DOT regulations. Generators and their contracted shipping carriers must be diligent regarding all requirements including packaging, routing, and shipping documentation.

The NNSS RWAP provides oversight of NNSS waste generators for compliance with DOT regulations and the NNSSWAC, including Sections 6 through 12 of the NNSSWAC Administrative Waste Acceptance Criteria. All RWAP-identified findings and observations on waste generator performance are tracked and trended.

Findings are issued by RWAP personnel to identify, track, and resolve deficiencies that violate the NNSSWAC, including failure to follow DOT requirements. Observations are also issued by RWAP personnel for conditions that represent a weakness in a waste generator's quality assurance or waste certification program that, if left uncorrected, could result in a condition adverse to quality. For the purposes of this report, only transportation and packaging findings are reported.

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