



3rd QUARTER TRANSPORTATION REPORT FY2015

**Radioactive Waste Shipments
to and from the Nevada National Security Site (NNSS)**

July 2015



**United States Department of Energy
National Nuclear Security Administration
Nevada Field Office
Las Vegas, Nevada**

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1.0 INTRODUCTION

This report satisfies the U.S. Department of Energy (DOE), National Nuclear Security Administration Nevada Field Office (NNSA/NFO) commitment to prepare a quarterly summary report of radioactive waste shipments to and from the Nevada National Security Site (NNSS) Radioactive Waste Management Complex (RWMC) at Area 5. There were no shipments sent for offsite treatment and returned to the NNSS this quarter. This report summarizes the 3rd quarter of Fiscal Year (FY) 2015 low-level radioactive waste (LLW) and mixed low-level radioactive waste (MLLW) shipments.

Tabular summaries are provided which include the following:

- Sources of and carriers for LLW and MLLW shipments to and from the NNSS;
- Number and external volume of LLW and MLLW shipments;
- Highway routes used by carriers; and
- Incident/accident data applicable to LLW and MLLW shipments.

In this report shipments are accounted for upon arrival at the NNSS, while disposal volumes are accounted for upon waste burial. The disposal volumes presented in this report include minor volumes of non-radioactive classified waste/material that were approved for disposal (non-radioactive classified or non-radioactive classified hazardous). Volume reports showing cubic feet (ft³) generated using the Low-Level Waste Information System may vary slightly due to rounding conventions for volumetric conversions from cubic meters to cubic feet.

2.0 SUMMARY OF RADIOACTIVE WASTE SHIPMENTS AND VOLUMES DISPOSED

Total LLW and MLLW Received from Offsite Generators

A total of 386,270 ft³ of LLW and MLLW was disposed at the NNSS by 18 approved radioactive waste generators in 420 shipments. These shipments were transported using 13 approved motor carriers (including government vehicles).

Total NNSS Onsite LLW/MLLW

One approved NNSS onsite radioactive waste generators disposed 164 ft³ of LLW/MLLW in one onsite transfer. A government vehicle was used for this transfer.

There were three non-radioactive classified shipments in the 3rd quarter of FY2015 for a total volume of 1,663 ft³.

Table 1 provides a summary of inbound (offsite and onsite) shipments. Table 2 provides a list of approved waste generators that shipped to/on the NNSS in the 3rd quarter of FY2015.

Table 1
NNSS Inbound, Onsite, Shipment Summary for 3rd Quarter of FY2015

Inbound	Generators	NNSS Generators	Approved Carriers	Shipments	Volume ft³
LLW / MLLW (offsite)	18	0	13	420	386,270
LLW / MLLW (onsite)	0	1	1	1	164

Table 2
Approved Generators Shipping To/On the NNSS in 3rd Quarter of FY2015

	APPROVED GENERATOR, STATE	GENERATOR CODE
1	Aberdeen Proving Ground	AP
2	Advanced Mixed Waste Treatment Project	AM
3	Argonne National Laboratory	AE
4	Battelle Energy Alliance	NE
5	CH2M Hill B&W West Valley, LLC	WV
6	Consolidated Nuclear Security, LLC Y-12	BW
7	Duratek/Energy Solutions	DR
8	Idaho National Laboratory	IN
9	Lawrence Livermore National Laboratory	LL
10	Los Alamos National Laboratory	LA
11	National Security Technologies	DP
12	Nuclear Fuel Services	NF
13	Oak Ridge Reservation	OR
14	Paducah Gaseous Diffusion Plant	PD
15	Perma-Fix (M&EC)	PF
16	Portsmouth Gaseous Diffusion Plant	PO
17	Savannah River Site	SR
18	UT-Battelle / Oak Ridge National Laboratory	OL
19	Wastren Advantage Inc.	FW

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 often use multiple motor carriers during the year to facilitate their shipments. Table 3 provides a list of the approved carriers used to transport LLW and MLLW shipments to the NNSS. Government trucks were used for onsite transfers of LLW and MLLW and for selected shipments from the Portsmouth site.

No shipments bound for the NNSS were transported via intermodal (rail/highway) conveyance, also referred to as transloading, in the 3rd quarter of FY2015.

Table 3
Approved Motor Carriers Used in 3rd Quarter of FY2015

	APPROVED MOTOR CARRIER	CARRIER CODE
1	AJ METLER (dba SPECIALTY TRANSPORT, INC.)	MAJH
2	BOYLE TRANSPORTATION, INC.	BYLE
3	BUFFALO FUEL CORPORATIONS	BUFI
4	CAST TRANSPORTATION	COLO
5	GOVERNMENT VEHICLE	GT+
6	HITTMAN TRANSPORT	HITT
7	HUBBARD TRUCKING	HTAL
8	INTERSTATE VENTURES	ITSV
9	LANDSTAR RANGER, INC.	LRGR
10	RSB LOGISTICS	RSBI
11	SLT EXPRESS WAY, INC.	SLTW
12	TMC, INC.	TMLJ
13	TRI-STATE MOTOR TRANSIT	TSMT

2.2 Shipments

Table 4 provides a summary of all LLW and MLLW offsite shipments received at NNSS. Table 5 provides a summary of NNSS onsite transfers of LLW and MLLW for the 3rd quarter of FY2015. Both tables include a summary for FY2015 in the "Total" column.

Table 4
Offsite Shipments of LLW and MLLW Transported to the NNSS

Offsite Inbound Shipments Generator, State	Shipments by Quarter				
	1 st	2 nd	3 rd	4 th	Total
Aberdeen Proving Ground, MD	2	0	4		6
Advanced Mixed Waste Treatment Project, ID	28	37	40		105
Argonne National Laboratory, IL	0	1	6		7
Battelle Energy Alliance, ID	7	8	6		21
Brookhaven National Laboratory, NY	0	0	0		0
CH2M Hill B&W West Valley, NY	0	0	3		3
Consolidated Nuclear Security, LLC – Y-12 Plant, TN	29	23	32		84
Duratek/Energy Solutions, TN	1	8	9		18
Idaho National Laboratory, ID	0	3	11		14
Lawrence Livermore National Laboratory, CA	4	7	15		26
Los Alamos National Laboratory, NM	4	10	9		23
National Security Technologies LLC, NV	0	0	0		0
Navarro, NV			0		0
Navarro-Intera, NV	5	0			5
Nuclear Fuel Services, TN	23	25	11		59
Oak Ridge Reservation, TN	22	46	34		102
Paducah Gaseous Diffusion Plant, KY	3	0	4		7
Consolidated Nuclear Security, LLC – Pantex Plant, TX	1	0	0		1
Permafex (M&EC), TN, WA, CA	17	6	26		49
Portsmouth Gaseous Diffusion Plant, OH	85	167	198		450
Sandia National Laboratories, NM	2	4	0		6
Savannah River Site, SC	0	0	1		1
UT-Battelle/Oak Ridge National Laboratory, TN	2	1	1		4
Wastren Advantage Inc., TN	7	7	10		24
Total Shipments	242	353	420		1,015

Table 5
NNSS Onsite Transfers of LLW and MLLW

Onsite Transfers	Shipments by Quarter				
Generator, State	1 st	2 nd	3 rd	4 th	Total
National Security Technologies LLC, NV	2	1	1		4
Navarro-Intera, LLC, NV	1	1			2
Navarro, NV			0		0
Total Transfers	3	2	1		6

2.3 Transportation Route Reporting

The NNSA/NFO continues to engage in discussions with radioactive waste generators regarding avoiding the Las Vegas Metropolitan Area. The NNSS Waste Acceptance Criteria includes wording requiring generators to notify their carriers to avoid this area and to select routes which minimize radiological risk.

Due to the events of September 11, 2001, tractor trailers continue to be restricted from travel near the Hoover Dam. The NNSS WAC states, "Waste transportation to the NNSS, regardless of DOT classification, shall avoid the Hoover Dam Bypass Bridge and Las Vegas".

Quarterly and annual transportation reports may be found on the Internet at <http://www.nv.energy.gov/emprograms/transportationreports.aspx>

The following two pages provide details and a graphic depiction of radioactive waste shipment routes traveled to the NNSS from April 1, 2015, to June 30, 2015.

LOW-LEVEL & MIXED LOW-LEVEL RADIOACTIVE WASTE SHIPMENTS TO THE NEVADA NATIONAL SECURITY SITE																						
THIRD QUARTER REPORT, FY 2015 (APRIL, MAY, JUNE 2015)																						
RouteType	Route Description	Route Legend	Origin State>>	CA	ID	ID	ID	IL	KY	MD	NM	NY	OH	SC	TN	TN	TN, WA, CA	TN	TN	TN	TN	
			Total Shipments by Route	Lawrence Livermore National Laboratory	Batelle Energy Alliance	Advanced Mixed Waste Treatment Project	Idaho National Laboratory	Argonne National Laboratory	Paducah Gaseous Diffusion Plant	Aberdeen Proving Ground	Los Alamos National Laboratory	CH2M Hill B&W West Valley	Portsmouth Gaseous Diffusion Plant	Savannah River Site	Duratek/Energy Solutions	Consolidated Nuclear Services Y-12 Plant	Materials & Energy Corporation (M&EC) Perma-Fix	Nuclear Fuels Services	Wastren Advantage, Inc.	Oakridge Reservation	Oakridge Ridge National Laboratory	
CALIFORNIA	I-15, CA-127, NV-373, US-95		5	5																		
CALIFORNIA	I-15, CA-127, CA-178, NV-372, NV-160, US-95		9	9																		
SOUTHERN	I-40, US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95		255	1						1	1		196		3	17		1	4	31		
SOUTHERN	I-40, US-95, NV-164, I-15, NV-160, US-95		72						4		8		2		1	15	23	10	6	3		
NORTHERN	I-80, US-93-ALT, US-6, US-95		24			2	4	6		3		3			5						1	
NORTHERN	US-93, US-6, US-95		51		6	38	7															
NORTHERN	I-80, US-95		3														3					
NORTHERN	US-50, US-6/50, US-6, US-95		1											1								
Total Shipments by Generator>>>			420	15	6	40	11	6	4	4	9	3	198	1	9	32	26	11	10	34	1	
Total Volume (ft³) by Generator>>>			386,270	23,516	4,000	25,408	8,909	2,141	3,356	1,843	12,204	2,664	209,120	535	5,820	39,310	3,877	8,852	8,589	25,981	145	
*There were no transloaded shipments this quarter																						



3.0 INCIDENT/ACCIDENT DATA

For the purpose of this report, an incident is defined as a traffic-related accident, a load shift, or a reported leaking/breached package which occurs during transportation of LLW or MLLW. There were no incidents in the 3rd quarter of FY2015.

Radioactive waste generators are instructed to notify the NNSA/NFO Assistant Manager of Environmental Management whenever a discrepancy, non-compliance, or inadequate performance is identified; or if a transportation incident or emergency situation occurs.

NSTec, a contractor to the NNSA/NFO, controls NNSW radioactive waste receipt and disposal activities and is responsible for notifying appropriate personnel regarding any non-compliant or refused shipments. NSTec personnel also immediately notify generators of any shipping discrepancies.

4.0 EVALUATION OF SHIPPING CAMPAIGNS

This section contains an evaluation summary of the annual shipping campaigns with respect to the significance of the packaging or transportation incidents reported in Section 3.0. Waste generators must ensure that waste is packaged and transported in a safe and compliant manner as detailed in the NNSW Waste Acceptance Criteria (WAC) and U.S. Department of Transportation regulations. Generators and their contracted shipping carriers must be diligent with regard to all requirements including packaging, routing, and shipping documentation.

The NNSW Radioactive Waste Acceptance Program (RWAP) provides oversight of NNSW waste generators for compliance with Department of Transportation regulations and the NNSW Waste Acceptance Criteria including Section 6.0, Waste Transportation and Receipt Information. All generator performance anomalies are tracked and trended for deficient conditions.

Corrective Action Requests (CARs) are issued by RWAP personnel to identify, track, and resolve deficiencies that violate the NNSSWAC — including failure to follow Department of Transportation 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.

There was one transportation associated CAR issued in this reporting period. On June 4, 2015, shipment 15-AS004 from URS|CH2 Oak Ridge LLC (UCOR) was discovered to have been misclassified as Department of Transportation (DOT) Non-Regulated. The correct classification should have been "Radioactive Material 7, SCO I." The issue occurred due to an error in identifying the qualifying limits of the lower bounds of the SCO-I category. The waste shipment was fully compliant for disposal and was offloaded and disposed with no issue.

5.0 REFERENCES

Shipment information is recorded at the NNSS Area 5 Radioactive Waste Management Site by NSTec Waste Management Program personnel. These records provide detailed information on each LLW and MLLW shipment, including the date received, generator, package number and type, volume, weight, carrier, and final disposition. In addition, incident and accident information is collected from NSTec and NNSA/NFO correspondence and personal communications with NNSA/NFO managers, NSTec personnel, waste generators, and carrier personnel. Route information is collected from the NNSA/NFO quarterly routing reports published by NNSA/NFO.

The following source documents are incorporated by reference:

- U.S. Department of Energy, Nevada Operations Office, "Final Site-Wide Environmental Impact Statement for the Continued Operation of the Department of Energy/National Nuclear Security Administration Nevada National Security Site and Offsite Locations in the State of Nevada," DOE/EIS-0426, Las Vegas, Nevada, February 2013.
- U.S. Department of Energy, Nevada Operations Office, "Record of Decision (ROD) for the Continued Management, Operations, and Activities of the Nevada National Security Site (NNSS) and Offsite Locations in the State of Nevada," EIS-0426 Record of Decision, Las Vegas, Nevada, December 2014.
- U.S. Department of Transportation Regulations, 49 CFR, "Transportation," *Code of Federal Regulations*, Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office, Washington, DC, 2012.

6.0 POINTS OF CONTACT

Please contact the following person with questions regarding radioactive waste transportation, waste management, or NNSA/NFO operations.

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7.0 ACRONYM LIST

ft³	Cubic Feet
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
FY	Fiscal Year
LLW	Low-Level Radioactive Waste
MLLW	Mixed Low-Level Radioactive Waste
NNSA/NFO	National Nuclear Security Administration, Nevada Field Office
NSTec	National Security Technologies, LLC
NNSS	Nevada National Security Site
RWMS	Radioactive Waste Management Site

8.0 DISTRIBUTION LIST

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