



1st QUARTER TRANSPORTATION REPORT FY2015

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

February 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 1st 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 Off-site Generators

A total of 198,364 ft³ of LLW and MLLW was disposed at the NNSS by 18 approved radioactive waste generators in 242 (including five shipments of waste from the Tonopah Test Range) shipments. These shipments were transported using 12 approved motor carriers (including government vehicles).

Total NNSS On-site LLW/MLLW

Two approved NNSS on-site radioactive waste generators disposed 2,066 ft³ of LLW in three on-site transfers. Government vehicles were used for these transfers.

There were four non-radioactive classified shipments in the 1st quarter of FY2015 for a total volume of 2,720 ft³.

Table 1 provides a summary of inbound (off-site and on-site) shipments. Table 2 provides a list of approved waste generators that shipped to/on the NNSS in the 1st quarter of FY2015.

Table 1
NNSS Inbound, On-site, Shipment Summary for 1st Quarter of FY2015

Inbound	Generators	NNSS Generators	Approved Carriers	Shipments	Volume ft³
LLW / MLLW (off-site)	17	1	12	242	198,364
LLW / MLLW (on-site)	2	2	1	3	2,066

Table 2
Approved Generators Shipping To/On the NNSS in 1st Quarter of FY2015

	APPROVED GENERATOR, STATE	GENERATOR CODE
1	ABERDEEN PROVING GROUND, MD	AP
2	ADVANCED MIXED WASTE TREATMENT PROJECT, ID	AM
3	BATTELLE ENERGY ALLIANCE, ID	NE
4	CONSOLIDATED NUCLEAR SECURITY, LLC Y-12, TN	BW
5	DURATEK/ENERGY SOLUTIONS, TN	DR
6	LAWRENCE LIVERMORE NATIONAL LABORATORY, CA	LL
7	LOS ALAMOS NATIONAL LABORATORY, NM	LA
8	NATIONAL SECURITY TECHNOLOGIES, NV	DP
9	NAVARRO-INTERA LLC, NV	IT
10	NUCLEAR FUEL SERVICES, TN	NF
11	OAK RIDGE RESERVATION, TN	OR
12	PADUCAH GASEOUS DIFFUSION PLANT, KY	PD
13	PANTEX, TX	PX
14	PERMA-FIX (M&EC), TN, WA, CA	PF
15	PORTSMOUTH GASEOUS DIFFUSION PLANT, OH	PO
16	SANDIA NATIONAL LABORATORY, NM	SA
17	UT-BATTELLE / OAK RIDGE NATIONAL LABORATORY, TN	OL
18	WASTREN ADVANTAGE INC., TN	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 on-site 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 1st quarter of FY2015.

Table 3
Approved Motor Carriers Used in 1st Quarter of FY2015

	APPROVED MOTOR CARRIER	CARRIER CODE
1	AJ METLER (dba SPECIALTY TRANSPORT, INC.)	MAJH
2	BOYLE TRANSPORTATION	BYLE
3	CAST SPECIALITY TRANSPORTATION	CSPT
4	CAST TRANSPORTATION	COLO
5	FLUID TRANSPORTS	FLAI
6	GOVERNMENT VEHICLE	GT+
7	HITTMAN TRANSPORT	HITT
8	HUBBARD TRUCKING	HTAL
9	INTERSTATE VENTURES	ITSV
10	R&R TRUCKING INC.	RRUK
11	SLT EXPRESS WAY INC.	SLTW
12	TRI-STATE MOTOR TRANSIT	TSMT

2.2 Shipments

Table 4 provides a summary of all LLW and MLLW off-site shipments received at NNSS. Table 5 provides a summary of NNSS on-site transfers of LLW and MLLW for the 1st quarter of FY2015. Both tables include a summary for FY2015 in the “Total” column.

**Table 4
Off-Site Shipments of LLW and MLLW Transported to the NNSS**

Off-Site Inbound Shipments Generator, State	Shipments by Quarter				Total
	1st	2nd	3rd	4th	
ABERDEEN PROVING GROUND, MD	2				2
ADVANCED MIXED WASTE TREATMENT PROJECT, ID	28				28
ARGONNE NATIONAL LABORATORY, IL	0				0
BATTELLE ENERGY ALLIANCE, ID	7				7
BROOKHAVEN NATIONAL LABORATORY, NY	0				0
CH2M HILL B&W WEST VALLEY, NY	0				0
CONSOLIDATED NUCLEAR SECURITY, LLC – Y-12 PLANT, TN	29				29
DURATEK/ENERGYSOLUTIONS, TN	1				1
IDAHO NATIONAL LABORATORY, ID	0				0
LAWRENCE LIVERMORE NATIONAL LABORATORY, CA	4				4
LOS ALAMOS NATIONAL LABORATORY, NM	4				4
NATIONAL SECURITY TECHNOLOGIES LLC, NV	0				0
NAVARRO-INTERRA, NV	5				5
NUCLEAR FUEL SERVICES, TN	23				23
OAK RIDGE RESERVATION, TN	22				22
PADUCAH GASEOUS DIFFUSION PLANT, KY	3				3
PANTEX PLANT, TX	1				1
PERMAFIX (M&EC), TN, WA, CA	17				17
PORTSMOUTH GASEOUS DIFFUSION PLANT, OH	85				85
SANDIA NATIONAL LABORATORIES, NM	2				2
SAVANNAH RIVER SITE, SC	0				0
UT-BATTELLE/OAK RIDGE NATIONAL LABORATORY, TN	2				2
WASTREN ADVANTAGE INC., TN	7				7
Total Shipments	242				242

**Table 5
NNS On-Site Transfers of LLW and MLLW**

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

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 NNS 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 NNS WAC states, "Waste transportation to the NNS, regardless of DOT classification, shall avoid the Hoover Dam Bypass Bridge and Las Vegas".

The NNSA/NFO also continues to prepare quarterly reports that disclose waste transportation routes. These 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 NNS from October 1, 2014 to December 31, 2014.

LOW-LEVEL & MIXED LOW-LEVEL RADIOACTIVE WASTE SHIPMENTS TO THE NEVADA NATIONAL SECURITY SITE

FIRST QUARTER REPORT, FY 2015 (OCTOBER, NOVEMBER, DECEMBER 2014)

RouteType	Route Description	Route Legend	Total Shipments by Route	Origin State>>																	
				CA	ID	ID	KY	MD	NM	NM	NV	OH	TN	TN	TN, WA, CA	TN	TN	TN	TN	TX	
				Lawrence Livermore National Laboratory	Batelle Energy Alliance	Advanced Mixed Waste Treatment Project	Paducah Gaseous Diffusion Plant	Aberdeen Proving Grounds	Sandia National Laboratory	Los Alamos National Laboratory	Navarro - Interra	Portsmouth Gaseous Diffusion Plant	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	Pantex	
CALIFORNIA	I-15, CA-127, NV-373, US-95		2	2																	
CALIFORNIA	I-15, CA-127, CA-178, NV-372, NV-160, US-95		2	2																	
SOUTHERN	I-40, US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95		103				1					72	1	11				18			
SOUTHERN	I-40, US-95, NV-164, I-15, NV-160, US-95		92			3		2	4			13		18	17	23	7	4		1	
NORTHERN	US-50, US-6/50, US-6, US-95		2																2		
NORTHERN	US-6, US-95		5							5											
NORTHERN	I-80, US-93-ALT, US-6, US-95		4		3		1														
NORTHERN	US-93, US-6, US-95		32		4	28															
Total Shipments by Generator>>>			242	4	7	28	3	2	2	4	5	85	1	29	17	23	7	22	2	1	
Total Volume (ft ³) by Generator>>>			198,364	2,880	3,730	25,287	2,013	874	2,576	4,503	7,123	70,758	384	34,609	2,730	12,628	4,680	22,117	114	1,360	

*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 transportation incidents in the 1st 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 are issued by RWAP personnel to identify, track, and resolve deficiencies that violate the NNSWAC- 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 were no transportation associated CAR's issued in this reporting period.

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 Off-Site 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 Off-Site 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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