



2nd QUARTER TRANSPORTATION REPORT FY2015

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

April 2015



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

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof.

Available for sale to the public, in paper, from:

U.S. Department of Commerce
National Technical Information Service
5301 Shawnee Road
Alexandria, VA 22312
Phone: 800.553.6847
Fax: 703.605.6900
E-mail: orders@ntis.gov
Online Ordering: <http://www.ntis.gov/help/order-methods/>

Available electronically at <http://www.osti.gov/bridge>

Available for a processing fee to the U.S. Department of Energy and its contractors, in paper, from:

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062
Phone: 865.576.8401
Fax: 865.576.5728

Table of Contents

1.0	INTRODUCTION	1
2.0	SUMMARY OF RADIOACTIVE WASTE SHIPMENTS AND VOLUMES DISPOSED	1
2.1	Waste Transporters (Motor Carriers).....	3
2.2	Shipments	4
2.3	Transportation Route Reporting.....	5
3.0	INCIDENT/ACCIDENT DATA.....	8
4.0	EVALUATION OF SHIPPING CAMPAIGNS.....	9
5.0	REFERENCES.....	10
6.0	POINTS OF CONTACT	10
7.0	ACRONYM LIST	11
8.0	DISTRIBUTION LIST	11

This page intentionally left blank

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 2nd 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 338,141.13 ft³ of LLW and MLLW was disposed at the NNSS by 15 approved radioactive waste generators in 353 shipments. These shipments were transported using 11 approved motor carriers (including government vehicles).

Total NNSS Onsite LLW/MLLW

Two approved NNSS onsite radioactive waste generators disposed 177.21 ft³ of LLW/MLLW in 2 onsite transfers. Government vehicles were used for these transfers.

There were 4 non-radioactive classified shipments in the 2nd quarter of FY2015 for a total volume of 1,037.67 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 2nd quarter of FY2015.

Table 1
NNSS Inbound, Onsite, Shipment Summary for 2nd Quarter of FY2015

Inbound	Generators	NNSS Generators	Approved Carriers	Shipments	Volume ft³
LLW / MLLW (offsite)	15	0	11	353	338,141
LLW / MLLW (onsite)	0	2	1	2	177

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

	APPROVED GENERATOR, STATE	GENERATOR CODE
1	ADVANCED MIXED WASTE TREATMENT PROJECT, ID	AM
2	ARGONNE NATIONAL LABORATORY	AE
3	BATTELLE ENERGY ALLIANCE, ID	NE
4	CONSOLIDATED NUCLEAR SECURITY, LLC Y-12, TN	BW
5	DURATEK/ENERGY SOLUTIONS, TN	DR
6	IDAHO NATIONAL LABORATORY	IN
7	LAWRENCE LIVERMORE NATIONAL LABORATORY, CA	LL
8	LOS ALAMOS NATIONAL LABORATORY, NM	LA
9	NATIONAL SECURITY TECHNOLOGIES, NV	DP
10	NAVARRO-INTERA LLC, NV	IT
11	NUCLEAR FUEL SERVICES, TN	NF
12	OAK RIDGE RESERVATION, TN	OR
13	PERMA-FIX (M&EC), TN, WA, CA	PF
14	PORTSMOUTH GASEOUS DIFFUSION PLANT, OH	PO
15	SANDIA NATIONAL LABORATORY, NM	SA
16	UT-BATTELLE / OAK RIDGE NATIONAL LABORATORY, TN	OL
17	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 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 2nd quarter of FY2015.

Table 3
Approved Motor Carriers Used in 2nd Quarter of FY2015

	APPROVED MOTOR CARRIER	CARRIER CODE
1	AJ METLER (dba SPECIALTY TRANSPORT, INC.)	MAJH
2	CAST TRANSPORTATION	COLO
3	FLUID TRANSPORTS	FLAI
4	GOVERNMENT VEHICLE	GT+
5	HITTMAN TRANSPORT	HITT
6	HUBBARD TRUCKING	HTAL
7	INTERSTATE VENTURES	ITSV
8	RSB LOGISTICS	RSBI
9	R&R TRUCKING INC.	RRUK
10	TLI FREIGHT SERVICES, LLC	TLVC
11	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 2nd 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				
	1st	2nd	3rd	4th	Total
ABERDEEN PROVING GROUND, MD	2	0			2
ADVANCED MIXED WASTE TREATMENT PROJECT, ID	28	37			65
ARGONNE NATIONAL LABORATORY, IL	0	1			1
BATTELLE ENERGY ALLIANCE, ID	7	8			15
BROOKHAVEN NATIONAL LABORATORY, NY	0	0			0
CH2M HILL B&W WEST VALLEY, NY	0	0			0
CONSOLIDATED NUCLEAR SECURITY, LLC – Y-12 PLANT, TN	29	23			52
DURATEK/ENERGYSOLUTIONS, TN	1	8			9
IDAHO NATIONAL LABORATORY, ID	0	3			3
LAWRENCE LIVERMORE NATIONAL LABORATORY, CA	4	7			11
LOS ALAMOS NATIONAL LABORATORY, NM	4	10			14
NATIONAL SECURITY TECHNOLOGIES LLC, NV	0	0			0
NAVARRO-INTERRA, NV	5	0			5
NUCLEAR FUEL SERVICES, TN	23	25			48
OAK RIDGE RESERVATION, TN	22	46			68
PADUCAH GASEOUS DIFFUSION PLANT, KY	3	0			3
PANTEX PLANT, TX	1	0			1
PERMAFIX (M&EC), TN, WA, CA	17	6			23
PORTSMOUTH GASEOUS DIFFUSION PLANT, OH	85	167			252
SANDIA NATIONAL LABORATORIES, NM	2	4			6
SAVANNAH RIVER SITE, SC	0	0			0
UT-BATTELLE/OAK RIDGE NATIONAL LABORATORY, TN	2	1			3
WASTREN ADVANTAGE INC., TN	7	7			14
Total Shipments	242	353			595

Table 5
NNSS Onsite Transfers of LLW and MLLW

Onsite Transfers	Shipments by Quarter				
Generator, State	1st	2nd	3rd	4th	Total
National Security Technologies LLC, NV	2	1			3
Navarro-Intera, LLC, NV	1	1			2
Total Transfers	3	2			5

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".

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 NNSS from January 1, 2015, to March 31, 2015.

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

SECOND QUARTER REPORT, FY 2015 (JANUARY, FEBRUARY, MARCH 2015)

RouteType	Route Description	Route Legend	Origin State>>	CA	ID	ID	ID	IL	NM	NM	OH	TN	TN	TN, WA, CA	TN	TN	TN	TN
			Total Shipments by Route	Lawrence Livermore National Laboratory	Battelle Energy Alliance	Advanced Mixed Waste Treatment Project	Idaho National Laboratory	Argonne National Laboratory	Sandia National Laboratory	Los Alamos National Laboratory	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
CALIFORNIA	I-15, CA-127, NV-373, US-95		5	5														
CALIFORNIA	I-15, NV-160, US-95	  	2	1										1				
SOUTHERN	I-40, US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95		217	1						1	157	2	12		2	1	41	
SOUTHERN	I-40, US-95, NV-164, I-15, NV-160, US-95		76		1				4	9	10	1	11	5	23	6	5	1
NORTHERN	I-80, US-93-ALT, US-6, US-95	 	5				1	1				3						
NORTHERN	US-93, US-6, US-95	  	48		7	37	2					2						
Total Shipments by Generator>>>			353	7	8	37	3	1	4	10	167	8	23	6	25	7	46	1
Total Volume (ft ³) by Generator>>>			338,141	12,298	5,242	30,498	2,042	1,205	2,146	9,210	169,374	1,154	29,307	1,790	13,975	7,443	50,861	1,596

*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 as defined above. However, two events were reported to NFO by shippers involving damage to vehicles parked at truck or rest stops and are being reported for completeness.

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 NNSS 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.

The following is a summary of the events:

On February 11, 2015, the Portsmouth WCO sent a notification that one of their parked shipment vehicles was damaged. While refueling at a truck stop near Flagstaff, Arizona, another tractor/trailer backed into the shipment vehicle tractor. The shipment vehicle incurred minor damage to a hood latch. A police report was filed and the shipment vehicle was repaired. The event caused a minor delay in the delivery of the shipment, but it was still made on its scheduled date.

On January 14, 2015, the UCOR AWCO sent a notification that one of their parked shipment vehicles was damaged. While at a rest stop in Arizona, the shipment vehicle was backed into by another tractor/trailer and tore the fabric on their Vango or Conestoga trailer (A Vango or Conestoga trailer is an enclosed trailer with a fabric curtain that can slide forward and backwards on the trailer frame. It provides protection from the elements and can be secured). None of the waste packages were impacted. As the fabric was being used only to protect the packages from the elements, the AWCO evaluated the weather conditions and recommended the drivers complete the delivery prior to repairing the trailer fabric. The trailer enclosure system was secured in the forward position and the shipment was delivered as scheduled.

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 NNSS 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 NNSS Radioactive Waste Acceptance Program (RWAP) provides oversight of NNSS waste generators for compliance with Department of Transportation regulations and the NNSS 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 were no transportation associated CARs 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 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.

Nohemi Brewer, Transportation Program Manager
U.S. Department of Energy
National Nuclear Security Administration
Nevada Field Office
Environmental Management Operations
P.O. Box 98518
Las Vegas, NV 89193-8518
(702) 295-4800

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

U.S. Department of Energy
National Nuclear Security Administration
Nevada Field Office
Public Reading Facility
c/o Nuclear Testing Archive
P.O. Box 98521
Las Vegas, NV 89193-8521

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062