

3rd QUARTER TRANSPORTATION REPORT FY2018

**Waste Shipments To and From the Nevada National Security
Site (NNS), Radioactive Waste Management Complex**

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

By:
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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 waste shipments to the Nevada National Security Site (NNS) Radioactive Waste Management Complex (RWMC) in Area 5. This report summarizes the following types of shipments during the 3rd quarter of fiscal year (FY) 2018:

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

Tabular summaries are provided which include the following:

- Number and external volume of LLW, MLLW and CNR/CNRH shipments;
- Waste Generators for LLW, MLLW and CNR/CNRH shipments to and on the NNS;
- Carriers for LLW, MLLW and CNR/CNRH shipments to and on the NNS;
- Waste Generator shipments by the quarter
- Highway routes used by carriers; and
- Incident/accident data applicable to LLW, MLLW and CNR/CNRH shipments.

In this report, shipments are accounted for upon arrival at the NNS, while disposal volumes are accounted for upon waste burial. Volume reports showing cubic feet (ft³) generated using the Low-Level Waste Information System may vary slightly due to rounding conventions for conversions from cubic meters to cubic feet.

Shipments are transported by motor carriers that are either identified on the “DOE Motor Carrier Evaluation Program (MCEP)” list, have been evaluated in a manner similar to the MCEP process, or are government vehicles. Government vehicles are not evaluated using the MCEP process, but are fully compliant with all transportation regulations and requirements.

2.0 SUMMARY OF WASTE SHIPMENTS AND VOLUMES DISPOSED

Total LLW and MLLW Received from Offsite Generators

A total of 273,024 ft³ of LLW and MLLW was disposed at the NNS by 16 radioactive waste generators in 345 shipments. These shipments were transported using 10 MCEP motor carriers and government vehicles.

Total NNS Onsite LLW

A total of 679 ft³ of LLW was disposed by one NNS onsite radioactive waste generator in six onsite shipments. Government vehicles were used for these shipments.

Total CNR/CNRH Received from Offsite Generators

A total of 1,186 ft³ of CNR/CNRH was disposed at the NNS by two waste generators in three shipments. These shipments were transported using two MCEP listed motor carriers.

Table 1 provides a summary of all shipments for the 3rd quarter of FY2018. Table 2 provides a list of waste generators that shipped to or on the NNSS in the 3rd quarter of FY2018.

**Table 1
Shipment Summary for 3rd Quarter of FY2018**

Inbound	Offsite Generators	NNSS Generators	Carriers	Shipments	Volume ft³
LLW / MLLW (offsite)	16	1	10	345 ^b	273,024
LLW (onsite) ^a	0	1	N/A	6	679
Classified Non-Radioactive	2	0	2	3 ^b	1,186

a – Government vehicles were used for all six LLW onsite shipments

b – The 345 LLW/MLLW and 3 CNR/CNRH shipments include 20 classified shipments (16 LLW, 1 MLLW, 2 CNR, and 1 CNRH)

**Table 2
Generators Shipping To/On the NNSS in 3rd Quarter of FY2018**

	GENERATOR NAME	GENERATOR CODE
1	Advanced Mixed Waste Treatment Project	AM
2	Battelle Energy Alliance	NE
3	BWXT Conversion Services (DUF6)	DU
4	CH2M Hill B&W West Valley, LLC	WV
5	Consolidated Nuclear Security, LLC Y-12	BW
6	Fluor Idaho	IN
7	Lawrence Livermore National Laboratory	LL
8	Los Alamos National Laboratory	LA
9	Mission Support and Test Services	DP
10	Navarro	IT
11	Nuclear Fuel Services	NF
12	Oak Ridge Reservation	OR
13	PermaFix	PF
14	Portsmouth Gaseous Diffusion Plant	PO
15	Sandia National Laboratory	SA
16	UT-Battelle / Oak Ridge National Laboratory	OL
17	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 MCEP carriers used to transport LLW, MLLW, CNR and CNRH shipments to the NNSS.

Table 3
Carriers Used in 3rd Quarter of FY2018

	MOTOR CARRIER
1	BUFFALO FUEL CORPORATION
2	CAST TRANSPORTATION
3	HITTMAN TRANSPORT
4	HUBBARD TRUCKING
5	INTERSTATE VENTURES
6	LANDSTAR INWAY, INC.
7	M.P. ENVIRONMENTAL SERVICES, INC.
8	SPECIALTY TRANSPORT, INC.
9	TRI-STATE MOTOR TRANSIT
10	WILCOX TRUCK LINES, INC.
	GOVERNMENT VEHICLE*

* Government vehicles transporting waste shipments are fully DOT compliant

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 shipments of LLW and MLLW. Table 6 provides a summary of all CNR and CNRH shipments received at NNSS. The three tables include a summary for FY2018 in the “Total” column.

Table 4
Offsite Shipments of LLW and MLLW Transported to the NNSS in 3rd Quarter of FY2018

Offsite Inbound Shipments	Shipments by Quarter				
Generator, State	1 st	2 nd	3 rd	4 th	Total
Aberdeen Proving Ground, MD	9	0	0		9
Advanced Mixed Waste Treatment Project, ID	22	22	36		80
Battelle Energy Alliance, ID	12	11	12		35
BWXT Conversion Services (DUF6), TN	2	0	3		5
CH2M Hill West Valley, LLC, NY	13	55	21		89
Consolidated Nuclear Security, LLC – Pantex, TX	1	1	0		2
Consolidated Nuclear Security, LLC – Y-12 Plant, TN	29	29	35		93
Duratek/Energy Solutions, TN	38	2	0		40
Fluor Idaho, ID	12	28	18		58
Lawrence Livermore National Laboratory, CA	5	6	6		17
Los Alamos National Laboratory, NM	10	8	10		28
Mission Support and Test Services / National Security Technologies LLC, NV	2	1	0		3
Navarro, NV	6	105	50		161
Nuclear Fuel Services, TN	2	3	7		12
Oak Ridge Reservation, TN	27	47	40		114
PermaFix, TN, WA, FL	60	32	68		160
Portsmouth Gaseous Diffusion Plant, OH	52	43	24		119
Sandia National Laboratories, NM	2	3	4		9
UT-Battelle/Oak Ridge National Laboratory, TN	2	6	8		16
Wastren Advantage, Inc., TN	11	1	3		15
Total Shipments	317	403	345		1,065

**Table 5
 NNSS Onsite Shipments of LLW and MLLW in 3rd Quarter of FY2018**

Onsite Shipments	Shipments by Quarter				
Generator, State	1 st	2 nd	3 rd	4 th	Total
Mission Support and Test Services LLC / National Security Technologies LLC, NV	7	12	6		25
Total Shipments	7	12	6		25

**Table 6
 Classified Non-Radioactive Shipments Transported to the NNSS in 3rd Quarter of FY2018**

Offsite Inbound Shipments	Shipments by Quarter				
Generator, State	1 st	2 nd	3 rd	4 th	Total
Battelle Energy Alliance, ID	0	1	1		2
Mission Support and Test Services LLC / National Security Technologies LLC, NV	0	2	0		2
PermaFix, TN, WA, FL	1	0	0		1
Sandia National Laboratories, NM	1	1	2		4
Total Shipments	2	4	3		9

2.3 Transportation Route Reporting

DOE policy is to avoid shipments travelling through the I-15/US-95 interchange. The NNSS Waste Acceptance Criteria (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 states, "Waste transportation to the NNSS, regardless of DOT classification, shall avoid the Hoover Dam Bypass Bridge."

Quarterly and annual transportation reports may be found on the Internet at <http://www.nnss.gov/pages/programs/RWM/Reports.html>

Table 7 provides details of waste shipment routes traveled to the NNSS for the 3rd Quarter of FY2018. Table 8 provides a graphic depiction of waste shipment routes traveled to the NNSS for the 3rd Quarter of FY2018.

**Table 7
Shipment Routes**

LOW-LEVEL, MIXED LOW-LEVEL & CLASSIFIED NON-RADIOACTIVE WASTE SHIPMENTS TO/ON THE NEVADA NATIONAL SECURITY SITE																					
THIRD QUARTER REPORT, FY 2018 (APRIL, MAY, JUNE 2018)																					
RouteType	Route Description	Route Legend	Total Shipments by Route	Origin State>>	CA	ID	ID	ID	NM	NM	NV	NV	NY	OH	TN	TN, WA, FL	TN	TN	TN	TN	
				Lawrence Livermore National Laboratory	Advanced Mixed Waste Treatment Project	Battelle Energy Alliance	Fluor Idaho	Los Alamos National Laboratory	Sandia National Laboratory	Mission Support and Test Services	Navarro	CH2M Hill BWXT West Valley, LLC	Portsmouth Gaseous Diffusion Plant	Consolidated Nuclear Services Y-12 Plant	Materials & Energy Corporation (M&EC) Perma-Fix	BWXT Conversion Services (DUF 6)	Nuclear Fuel Services	Oak Ridge Reservation (UCOR)	Oak Ridge National Laboratory	Wastren Advantage, Inc.	
CALIFORNIA	I-15, CA-127, NV-373, US-95		59	3												56					
CALIFORNIA	I-15, CA-127, CA-178, NV-372, NV-160, US-95		1													1					
SOUTHERN	I-40, US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95		111					2	5					24	25		2	7	39	6	1
SOUTHERN	I-40, US-95, NV-164, I-15, NV-160, US-95		30					8	1						10	7	1		1	1	1
SOUTHERN	I-40, I-15, NV-160, US-95		3	3																	
SOUTHERN	I-40, I-15, CA-127, NV-373, US-95		1																		1
NORTHERN	US-6, US-95 (TTR)		50								50										
NORTHERN	I-80, US-93-ALT, US-6, US-95		29				7						21							1	
NORTHERN	US-93, US-6, US-95		64		36	13	11									4					
ON-SITE	On-Site Shipments	N/A	6								6										
Total Shipments by Generator>>>			354	6	36	13	18	10	6	6	50	21	24	35	68	3	7	40	8	3	
Total Volume (ft ³) by Generator>>>			274,890	6,060	32,612	10,018	6,548	6,561	2,595	679	24,201	20,552	24,860	44,204	44,293	6,439	4,270	19,662	17,662	3,674	

There were no transloaded shipments this quarter

Table 8
Graphic Representation of Routes Travelled to the NNSS



3.0 INCIDENT/ACCIDENT DATA

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

- **Incident:** Any unintentional release of a 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.
- **Accident:** An occurrence involving a motor vehicle operating on a highway in interstate or intrastate commerce which 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 vehicles to be transported away from the scene by a tow truck or other motor vehicle. (49 CFR 390.5(1))

The Department of Energy's (DOE) Office of Environmental Management (EM), sites, and carriers are dedicated to ensuring an appropriate response to all offsite transportation events involving DOE radioactive materials. In a memo to EM sites on October 17, 2016, the Director DOE Office of Packaging and Transportation, and the NNSA/NFO Assistant Manager for Environmental Management established notification criteria to provide additional clarity to the requirements in the NNS Waste Acceptance Criteria. This reporting is consistent with DOE Manual 460.2-1, and will help to ensure:

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

Waste generators are instructed to notify the Nevada Field Office whenever a discrepancy, non-compliance, or inadequate performance is identified; or if a transportation incident or emergency situation occurs.

Mission Support and Test Services (MSTS), a contractor to the NNSA/NFO, controls NNS waste receipt and disposal activities and is responsible for notifying appropriate personnel regarding shipping discrepancies, incidents or accidents.

There were no transportation incidents or accidents during the 3rd quarter of fiscal year 2018.

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/accidents 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 NNSSWAC 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 NNSSWAC Section 6.0, Waste Transportation and Receipt Information. 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 Revision 16-00 — 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. For the purposes of this report, only transportation and packaging related Findings will be reported.

There were no transportation related findings in the 3rd quarter of FY2018.

5.0 REFERENCES

- 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.
- U.S. Department of Energy, Office of Packaging and Transportation, Memo establishing notification criteria, Las Vegas, Nevada, October 2016.

6.0 POINT OF CONTACT

Please contact the following person with questions regarding waste transportation or waste management.

Bill Wilborn, Deputy Program Manager
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EM Nevada Program
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7.0 ACRONYM LIST

ft³	Cubic Feet
CFR	Code of Federal Regulations
CNR	Classified Non-Radioactive
CNRH	Classified Non-Radioactive Hazardous
DOE	U.S. Department of Energy
DOT	Department of Transportation
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	National Nuclear Security Administration, Nevada Field Office
NNSS	Nevada National Security Site
NSSWAC	Nevada National Security Site Waste Acceptance Criteria
RWMC	Radioactive Waste Management Complex

8.0 DISTRIBUTION LIST

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