

# **ANNUAL REPORT - FY 2002**

## **Radioactive Waste Shipments To And From The Nevada Test Site (NTS)**

**January 2003**

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

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## 1.0 INTRODUCTION

In February 1997, the U.S. Department of Energy, Nevada Operations Office issued the Mitigation Action Plan which addressed potential impacts described in the “Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada” (DOE/EIS 0243). The U.S. Department of Energy, Nevada Operations Office committed to several actions, including the preparation of an annual report, which summarizes waste shipments to and from the Nevada Test Site (NTS) Radioactive Waste Management Sites (RWMSs) at Area 3 and Area 5. This document satisfies requirements with regard to low-level radioactive waste (LLW) and mixed low-level radioactive waste (MLLW) transported to or from the NTS during fiscal year (FY) 2002.

This report has been prepared in accordance with the specifications contained in Section 4.1.1 (Commitments) of the “NTS Environmental Impact Statement, Mitigation Action Plan” (February 1997). Tabular summaries are provided which include the following data:

- Sources of and carriers for LLW and MLLW shipments to or from the NTS;
- Number and volume of LLW and MLLW shipments;
- Identification of highway routes used by carriers; and
- Incident/accident data applicable to LLW and MLLW shipments.

## 2.0 SUMMARY OF WASTE SHIPMENTS (FY 2002)

In FY 2002, disposal of LLW/MLLW at the two NTS RWMSs consisted of 1,674 inbound shipments, from 20 approved generators. These shipments were transported on 19 different motor carriers. Names and codes for approved generators and carriers used in this report are located in Tables 1 and 2, respectively.

1,642 inbound shipments received from 18 off-site generators totaled 2,275,862 cubic feet (ft<sup>3</sup>). Two NTS (onsite) generators made 24 shipments which resulted in 33,065 ft<sup>3</sup> of LLW being received. These two onsite generators also made 8 shipments which accounted for 5,796 ft<sup>3</sup> of MLLW.

A total of 2,314,723 ft<sup>3</sup> of LLW/MLLW was disposed of in FY 2002 at the NTS.

One shipment (16 ft<sup>3</sup>) of MLLW was made late in the fiscal year to a treatment facility in Richland, Washington. This shipment arrived at its intended destination, incident free. The motor carrier utilized for this outbound shipment, RinChem, Inc., is also included in Table 2. As the one shipment of MLLW was made late in the fiscal year, no outbound shipments of treated MLLW were returned to the NTS in FY 2002.

No outbound shipments of LLW or Polychlorinated Biphenyl (PCB) contaminated LLW were made in FY 2002.

**Table 1. List of Approved Generators Shipping In FY 2002**

| APPROVED GENERATOR, STATE                       | CODE |
|---|------|
| ABERDEEN PROVING GROUNDS, MD & TX               | AP   |
| BECHTEL NEVADA, NV                              | DP   |
| BECHTEL JACOBS, TN                              | OR   |
| BOEING ROCKETDYNE, CA                           | BN   |
| BRITISH NUCLEAR FUEL LIMITED, TN                | ET   |
| RMI ENVIRONMENTAL SERVICES, OH                  | RM   |
| FLUOR FERNALD, OH                               | WM   |
| GENERAL ATOMICS, CA                             | BG   |
| IDAHO NATIONAL ENERGY LAB, ID                   | IN   |
| IT CORP LAS VEGAS, NV                           | IT   |
| KAISER HILL (ROCKY FLATS), CO                   | RF   |
| LAWRENCE LIVERMORE NATIONAL LAB, CA             | LL   |
| MIAMISBURG ENVIRONMENTAL MANAGEMENT PROJECT, OH | MD   |
| PADUCAH GASEOUS DIFFUSION PLANT, KY             | PD   |
| PANTEX PLANT, TX                                | PX   |
| PRINCETON PLASMA PHYSICS LAB, NJ                | PL   |
| SANDIA NATIONAL LAB-CA, CA                      | SL   |
| SANDIA NATIONAL LAB-NM, NM                      | SA   |
| WESTINGHOUSE SAVANNAH RIVER, SC                 | SR   |
| WEST VALLEY DEMONSTRATION PROJECT, NY           | WV   |

**Table 2. List of Approved Motor Carriers Utilized in FY 2002**

| APPROVED MOTOR CARRIER      | CODE |
|-----------------------------|------|
| AUTUMN INDUSTRIES           | AUII |
| T.F. BOYLE                  | BYLE |
| CAST TRANSPORTATION         | COLO |
| DAVIS TRUCKING              | DAVS |
| FLUID TRANSPORTS            | FLD+ |
| GOVERNMENT VEHICLE          | GVT+ |
| HITTMAN TRANSPORT           | HITT |
| INTERNATIONAL WASTE REMOVAL | IWRI |
| LANDSTAR INWAY              | LDWY |
| LANDSTAR LIGON              | LIGS |
| LAKEWAY TRANSPORTATION      | LKWT |
| LANDSTAR RANGER             | LRGR |
| A.J. METLER                 | MEAJ |
| MP ENVIRONMENTAL            | MPE+ |
| RINCHEM, INC.               | RINC |
| R & R TRUCKING              | RRUK |
| SPECIALTY TRANSPORT         | SPCN |
| TAG TRANSPORT               | TAG+ |
| TRIAD                       | TDTO |
| TRI-STATE MOTOR TRANSPORT   | TSMT |

## 2.1 Waste Transporters (Motor Carriers)

Generators often use more than one motor carrier to facilitate their shipments. Table 3 identifies each generator and the corresponding carrier(s) utilized for transport of LLW and MLLW to and from the NTS. Motor carriers operate in compliance with regulations found in Title 49 Code of Federal Regulations, "Transportation," and are selected by the generator.

**Table 3. Waste Transporters Utilized by Generator**

| GENERATOR CODE | AUII | BYLE | COLO | DAVS | FLD+ | GVT+ | HITT | IWRI | LDWY | LIGS | LKWT | LRGR | MEAJ | MPE+ | RINC | RRUK | SPCN | TAG+ | TDTO | TSMT |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AP             |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |
| DP             |      |      |      |      |      | X    |      |      |      |      |      |      |      |      | X*   |      |      |      |      |      |
| OR             |      |      |      | X    |      |      |      |      |      |      |      |      | X    |      |      |      |      | X    |      |      |
| BN             |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |
| ET             |      |      |      |      |      |      |      |      |      |      | X    |      | X    |      |      |      |      | X    |      |      |
| RM             |      |      |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |
| WM             | X    |      |      |      | X    |      |      |      |      |      |      | X    |      |      |      | X    |      |      | X    | X    |
| BG             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |
| IN             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |
| IT             |      |      |      |      |      | X    | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| RF             |      |      | X    |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |
| LL             |      |      |      |      |      | X    |      |      |      | X    |      | X    |      | X    |      | X    |      |      |      | X    |
| MD             |      |      |      |      |      |      |      |      |      |      |      | X    | X    |      |      |      |      |      |      |      |
| PD             |      |      |      |      |      |      |      |      | X    | X    |      | X    |      |      |      |      | X    |      |      |      |
| PX             |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| PL             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |
| SL             |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |
| SA             |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SR             |      |      |      |      |      |      | X    |      |      |      |      |      | X    |      |      |      |      |      |      |      |
| WV             |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |

\* Used to transport MLLW from NTS to Richland

## 2.2 Shipments and Volume

Table 4 provides a summary of all LLW and MLLW shipments, including volume, to and from the NTS during FY 2002.

**Table 4. Shipments and Volumes of Waste Sent To and From the NTS (FY 2002)**

| Inbound Low Level Waste Shipments<br>Generator Code        | Shipments By Quarter |            |            |                 |              | Volume<br>(ft3)  |
|--|----------------------|------------|------------|-----------------|--------------|------------------|
|  | 1st                  | 2nd        | 3rd        | 4 <sup>th</sup> | Total        |                  |
| AP   | 2                    | 0          | 0          | 4               | 6            | 3,248            |
| OR   | 9                    | 0          | 0          | 24              | 33           | 38,670           |
| DP   | 5                    | 6          | 3          | 14              | 28           | 38,780           |
| BN   | 0                    | 1          | 2          | 1               | 4            | 3,522            |
| ET   | 80                   | 70         | 135        | 163             | 448          | 610,174          |
| RM   | 3                    | 0          | 1          | 1               | 5            | 6,601            |
| WM   | 82                   | 47         | 30         | 73              | 232          | 259,048          |
| BG   | 0                    | 0          | 19         | 9               | 28           | 15,280           |
| RF   | 75                   | 116        | 135        | 171             | 497          | 1,034,928        |
| IN   | 0                    | 0          | 2          | 4               | 6            | 2,184            |
| IT   | 0                    | 4          | 0          | 0               | 4            | 80               |
| LL   | 25                   | 5          | 20         | 151             | 201          | 85,840           |
| MD   | 10                   | 10         | 15         | 14              | 49           | 109,619          |
| PD   | 25                   | 10         | 0          | 0               | 35           | 23,647           |
| PX   | 0                    | 0          | 1          | 2               | 3            | 4,321            |
| PL   | 2                    | 25         | 16         | 9               | 52           | 26,337           |
| SL   | 3                    | 0          | 0          | 0               | 3            | 1,764            |
| SA   | 3                    | 4          | 1          | 4               | 12           | 18,184           |
| SR   | 2                    | 15         | 5          | 5               | 27           | 31,774           |
| WV   | 1                    | 0          | 0          | 0               | 1            | 722              |
| <b>Totals</b>  | <b>327</b>           | <b>313</b> | <b>385</b> | <b>649</b>      | <b>1,674</b> | <b>2,314,723</b> |
| Outbound Mixed Low Level Waste Shipments<br>Generator Code | Shipments By Quarter |            |            |                 |              | Volume<br>(ft3)  |
|  | 1st                  | 2nd        | 3rd        | 4 <sup>th</sup> | Total        |                  |
| DP   | 1                    | 0          | 0          | 0               | 1            | 16               |
| <b>Totals</b>  | <b>1</b>             | <b>0</b>   | <b>0</b>   | <b>0</b>        | <b>1</b>     | <b>16</b>        |

### 2.3 Transportation Routes

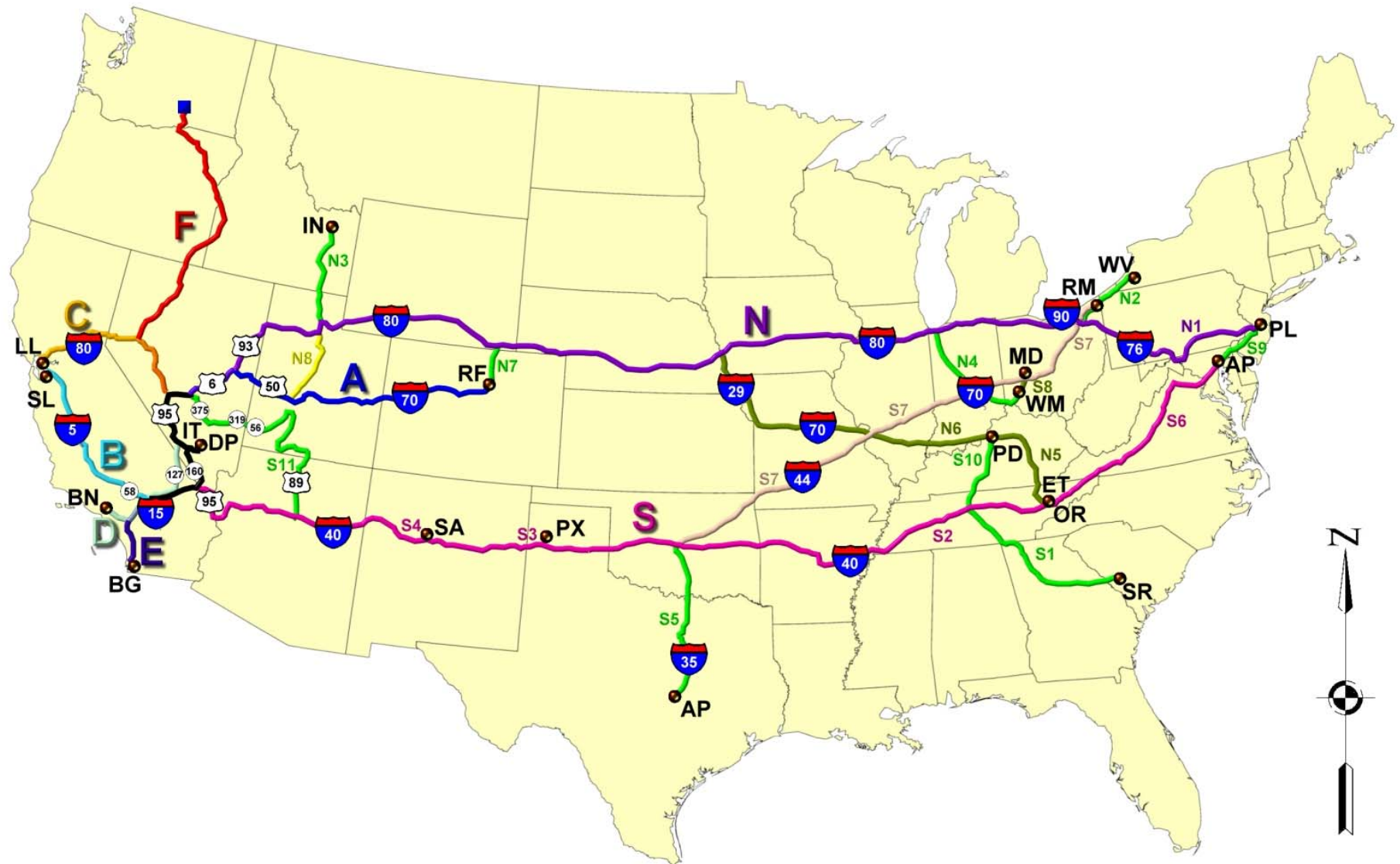
Motor carriers select routes in compliance with requirements found in applicable sections of 49 CFR 397.101. Bechtel Nevada and IT Corporation, Las Vegas (ITLV) LLW and MLLW shipments, usually generated on the NTS, are transported onsite (on highways that are not accessible to the general public).

Eighteen out-of-state generators shipped LLW to the NTS for disposal in FY 2002. General cross country transportation routes are displayed in Figure 1. More specific entry routes are displayed in Figure 2. Route identifier codes, route legends, and their corridor states are listed in Table 5. A listing of routes utilized by each generator and the number of shipments can be found in Table 6.

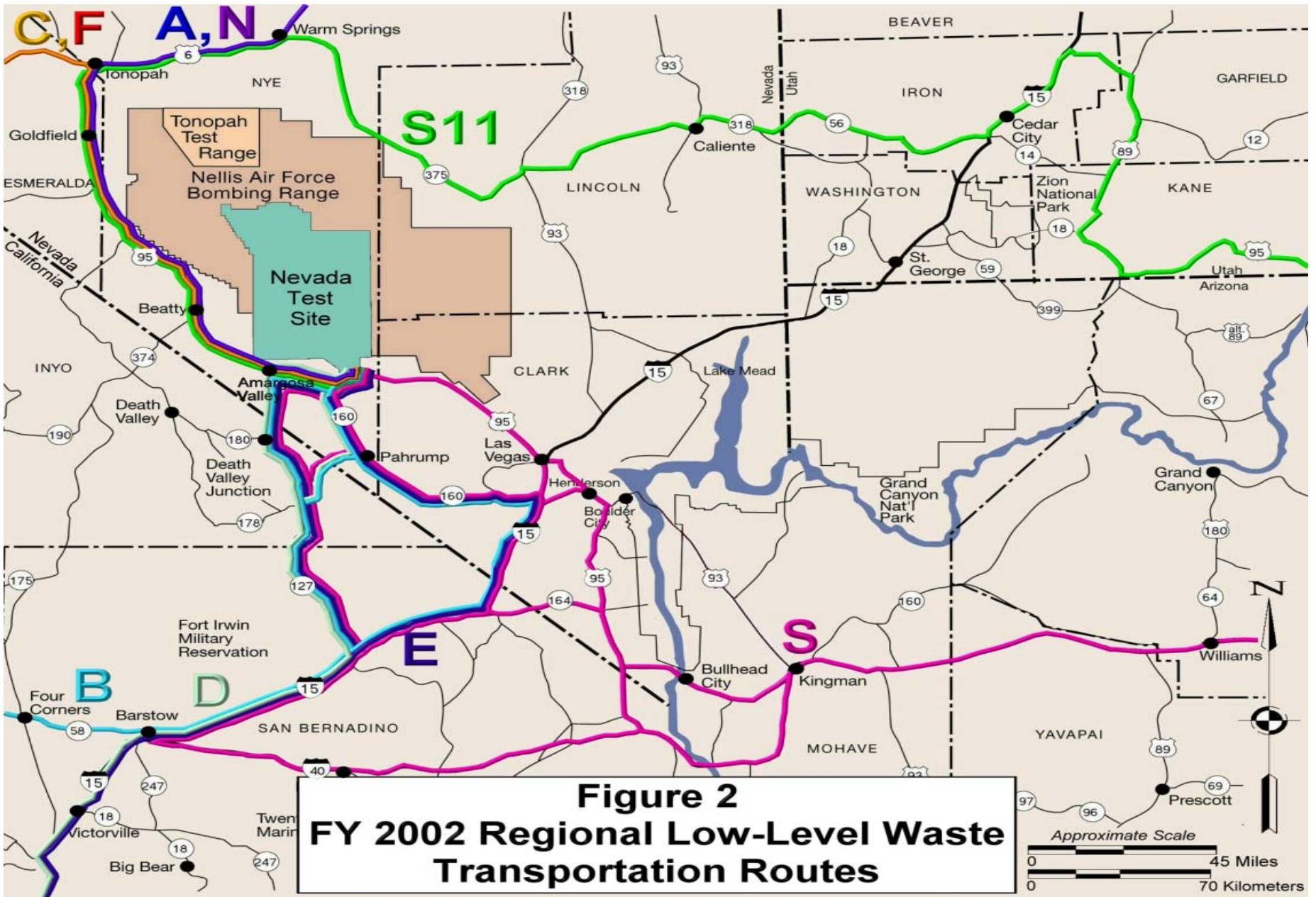
One shipment of MLLW was made by Bechtel Nevada in FY 2002. The route used is indicated in Table 5 as route "F".

Neither Bechtel Nevada nor ITLV made outbound shipments of LLW in FY 2002.

**Figure 1**  
**FY 2002 National Low-Level Waste Transportation Routes**







**Table 5. Transportation Route Identification**

Route “N” represents the Northern route (I-80) running from East to West. The Northern ancillary routes (N1-8) are feeder routes from generator sites to the main Northern route.

Route “S” represents the Southern route (I-40) running East to West. The Southern ancillary routes (S1-11) are feeder routes from generator sites to the main Southern route.

Route “A” represents the Central route utilized by Kaiser Hill (Rocky Flats).

Routes B-E represent routes utilized by California generators for shipments to the NTS.

Route “F” represents the route utilized for the outbound shipment of MLLW from the NTS to the Richland, WA treatment facility.

| Route | Corridor States                                |
|-------|--|
| N     | Northern Route, I-80 Corridor                  |
| N1    | NJ, PA, OH, IN, IL, IA, NE, WY, UT, NV         |
| N2    | NY, OH, IN, IL, IA, NE, WY, UT, NV             |
| N3    | ID, UT, NV                                     |
| N4    | OH, IN, IL, IA, NE, WY, UT, NV                 |
| N5    | TN, KY, IL, MO, IA, NE, WY, UT, NV             |
| N6    | KY, IL, MO, IA, NE, WY, UT, NV                 |
| N7    | CO, WY, UT, NV                                 |
| N8    | NJ, PA, OH, IN, IL, IA, NE, WY, UT, NV         |
| S     | Southern Route, I-40 Corridor                  |
| S1    | SC, GA, TN, AR, OK, TX, NM, AZ, CA, NV         |
| S2    | TN, AR, OK, TX, NM, AZ, CA, NV                 |
| S3    | TX, NM, AZ, CA, NV                             |
| S4    | NM, AZ, CA, NV                                 |
| S5    | TX, OK, TX, NM, AZ, CA, NV                     |
| S6    | MD, VA, TN, AR, OK, TX, NM, AZ, CA, NV         |
| S7    | OH, IN, IL, MO, OK, TX, NM, AZ, CA, NV         |
| S8    | OH, IN, IL, MO, OK, TX, NM, AZ, CA, NV         |
| S9    | NJ, DE, MD, VA, TN, AR, OK, TX, NM, AZ, CA, NV |
| S10   | KY, TN, AR, OK, TX, NM, AZ, CA, NV             |
| S11   | NJ, DE, MD, VA, TN, AR, OK, TX, NM, AZ, UT, NV |
| A     | CO, UT, NV                                     |
| B     | CA, NV   |
| C     | CA, NV   |
| D     | CA, NV   |
| E     | CA, NV   |
| F     | NV, OR, ID, OR, WA                             |

**Table 6. Transportation Routes Utilized by Generator**

| Inbound LLW                             |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
|---|---|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|-----|-----|---|---|---|---|---|---|
| Route Designation >>><br>Generator Code | N | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | S | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | A | B | C | D | E | F |
| AP                                      |   |    |    |    |    |    |    |    |    | X |    |    |    |    | X* | X  |    |    |    |     |     |   |   |   |   |   |   |
| OR                                      | X |    |    |    |    | X  |    |    |    | X |    | X  |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| DP                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| BN                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   | X |   |   |
| ET                                      | X |    |    |    |    | X  |    |    |    | X |    | X  |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| RM                                      |   |    |    |    |    |    |    |    |    | X |    |    |    |    |    |    | X  |    |    |     |     |   |   |   |   |   |   |
| WM                                      | X |    |    |    | X  |    |    |    |    | X |    |    |    |    |    |    | X  | X  |    |     |     |   |   |   |   |   |   |
| BG                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   | X |   |
| RF                                      | X |    |    |    |    |    |    | X  |    |   |    |    |    |    |    |    |    |    |    |     |     | X |   |   |   |   |   |
| IN                                      | X |    |    | X  |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| IT                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| LL                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   | X | X |   |   |   |
| MD                                      | X |    |    |    | X  |    |    |    |    | X |    |    |    |    |    |    | X  |    |    |     |     |   |   |   |   |   |   |
| PD                                      | X |    |    |    |    |    | X  |    |    | X |    |    |    |    |    |    |    |    |    | X   |     |   |   |   |   |   |   |
| PX                                      |   |    |    |    |    |    |    |    |    | X |    |    | X  |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| PL                                      | X | X  |    |    |    |    |    |    | X  | X |    |    |    |    |    |    |    |    | X  |     | X   |   |   |   |   |   |   |
| SL                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   | X |   |   |   |   |
| SA                                      |   |    |    |    |    |    |    |    |    | X |    |    |    | X  |    |    |    |    |    |     |     |   |   |   |   |   |   |
| SR                                      |   |    |    |    |    |    |    |    |    | X | X  |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| WV                                      | X |    | X  |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| Outbound MLLW                           |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   |   |
| Generator                               | N | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | S | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | A | B | C | D | E | F |
| DP                                      |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |     |     |   |   |   |   |   | X |

\* One AP shipment originated from Ft. Hood, TX

## **2.4 Transportation Route Reporting**

As a result of obligations made by former DOE Secretary Richardson, the transportation of inbound LLW shipments through the Las Vegas I-15 and US-95 Interchange (“Spaghetti Bowl”) and across Hoover Dam have substantially decreased since FY 2000. No shipments were transported across Hoover Dam, while less than one percent (3 shipments) of all inbound and outbound shipments were transported through the Spaghetti Bowl in FY 2002.

As a result of the events of September 11, 2001, tractor trailers are no longer allowed to travel across Hoover Dam. The U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office (NNSA/NV) continues to engage in extensive discussions with the generators regarding the avoidance of the Spaghetti Bowl.

NNSA/NV continues to honor an additional obligation made by former Secretary Richardson, and endorsed by the current administration, by preparing quarterly reports disclosing which routes transporters used to reach the NTS. These reports may be found on the Internet at <http://www.nv.doe.gov/programs/xportmgmt/QuarterlyReport.htm> .

In summary, these reporting mechanisms and agreements by DOE management to avoid certain geographic and urban areas have continued a major shift in the overall routing of inbound LLW to the NTS.

Table 7 identifies specific routes utilized by generators to transport LLW to the NTS.

**Table 7. Shipment Summary of Inbound and Outbound Regional Routes for FY 2002**

| ROUTE DESCRIPTION  | AP       | OR        | DP        | BN       | ET         | RM       | WM         | BG        | RF         | IN       | IT       | LL         | MD        | PD        | PX       | PL        | SL       | SA        | SR        | WV       | TOTALS       |
|--|----------|-----------|-----------|----------|------------|----------|------------|-----------|------------|----------|----------|------------|-----------|-----------|----------|-----------|----------|-----------|-----------|----------|--------------|
| I-15, CA-127, CA-178, NV-372, NV-160, US-95                                      |          |           |           | 2        |            |          |            |           |            |          |          | 183        |           |           |          |           | 3        |           |           |          | 188          |
| I-15, CA-127, NV-373, US-95  |          |           |           | 2        |            |          |            | 24        |            |          |          | 10         |           |           |          |           |          |           |           |          | 36           |
| I-15, NV-160, US-95  |          |           |           |          |            |          |            | 4         |            |          |          | 2          |           |           |          |           |          |           |           |          | 6            |
| I-40, I-15, CA-127, NV-373, US-95  | 1        |           |           |          | 1          |          |            |           |            |          |          |            |           |           |          |           |          |           |           |          | 2            |
| I-40, US-95, NV-164, I-15, CA-127, CA-178, NV-372, NV-160, US-95                 | 1        |           |           |          | 3          |          | 1          |           |            |          |          |            |           |           |          | 1         |          |           |           |          | 6            |
| I-40, US-95, NV-164, I-15, CA-127, NV-373, US-95                                 | 3        | 6         |           |          | 30         | 1        | 42         |           |            |          |          |            | 22        | 1         | 1        | 14        |          |           | 5         |          | 125          |
| I-40, US-95, NV-164, I-15, NV-160, NV-372, CA-178, CA-127, NV-373, US-95         |          |           |           |          |            |          |            |           |            |          |          |            |           |           |          |           |          |           | 1         |          | 1            |
| I-40, US-95, NV-164, I-15, NV-160, US-95   |          | 15        |           |          | 291        | 4        | 47         |           |            |          |          |            | 11        | 28        | 1        | 21        |          | 9         | 21        |          | 448          |
| I-40, US-95, US-93, I-515, I-215, NV-146, I-15, NV-160, US-95                    |          |           |           |          |            |          |            |           |            |          |          |            |           |           |          | 1         |          |           |           |          | 1            |
| I-40, US-95, US-93, I-515, US-95 (Spaghetti Bowl)                                | 1        |           |           |          |            |          |            |           |            |          |          |            |           |           |          |           |          |           |           |          | 1            |
| I-80, US-50-ALT, US-50, US-95 (Reno)   |          |           |           |          |            |          |            |           |            |          |          | 6          |           |           |          |           |          |           |           |          | 6            |
| I-80, US-93-ALT, US-6, US-95   |          | 6         |           |          | 28         |          | 141        |           | 1          | 6        |          |            | 15        | 3         |          | 10        |          |           |           | 1        | 211          |
| US-50, US-6/50, US-6, US-95  |          |           |           |          |            |          |            |           | 496        |          |          |            |           |           |          | 1         |          |           |           |          | 497          |
| US-93, AZ-68, NV-163, US-95, NV-164, I-15, CA-127, CA-178, NV-372, NV-160, US-95 |          | 1         |           |          |            |          |            |           |            |          |          |            |           |           |          |           |          |           |           |          | 1            |
| US-93, AZ-68, NV-163, US-95, NV-164, I-15, CA-127, NV-373, US-95                 |          | 2         |           |          | 41         |          |            |           |            |          |          |            |           |           |          |           |          |           |           |          | 43           |
| US-93, AZ-68, NV-163, US-95, NV-164, I-15, NV-160, US-95                         |          | 3         |           |          | 54         |          |            |           |            |          |          |            | 1         | 3         | 1        | 2         |          | 3         |           |          | 67           |
| US-93, AZ-68, NV-163, US-95, US-93, I-515, I-215, I-15, US-95 (Spaghetti Bowl)   |          |           |           |          |            |          |            |           |            |          |          |            |           |           |          | 1         |          |           |           |          | 1            |
| US-93, AZ-68, NV-163, US-95, US-93, I-515, US-95 (Spaghetti Bowl)                |          |           |           |          |            |          | 1          |           |            |          |          |            |           |           |          |           |          |           |           |          | 1            |
| UT-56, NV-319, US-93, NV-375, US-6, US-95  |          |           |           |          |            |          |            |           |            |          |          |            |           |           |          | 1         |          |           |           |          | 1            |
| US-95, I-80, US-95, I-84, I-82, US-395   |          |           |           | 1        |            |          |            |           |            |          |          |            |           |           |          |           |          |           |           |          | 1            |
| ON-SITE  |          |           | 28        |          |            |          |            |           |            |          | 4        |            |           |           |          |           |          |           |           |          | 32           |
| <b>TOTALS</b>  | <b>6</b> | <b>33</b> | <b>29</b> | <b>4</b> | <b>448</b> | <b>5</b> | <b>232</b> | <b>28</b> | <b>497</b> | <b>6</b> | <b>4</b> | <b>201</b> | <b>49</b> | <b>35</b> | <b>3</b> | <b>52</b> | <b>3</b> | <b>12</b> | <b>27</b> | <b>1</b> | <b>1,675</b> |

### **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.

Generators are requested to notify the NNSA/NV Assistant Manager of Environmental Management whenever a discrepancy, non-compliance, or inadequate performance is identified; or if a transportation incident or emergency situation occurs.

Bechtel Nevada personnel control waste receipt and disposal activities at the NTS and are responsible for notifying appropriate DOE personnel regarding any non-compliant or refused radioactive waste shipments. Bechtel Nevada personnel also immediately notify generators in the event of any shipping paper discrepancies.

In FY 2002, no transportation incidents occurred as defined above. However, there were four package related discrepancies identified by Bechtel Nevada personnel during offloading operations. These isolated discrepancies were reported to both NNSA/NV as well as the appropriate generators. Corrective actions were implemented by the generators, with no further occurrences noted or reported during FY 2002.

- Four successive British Nuclear Fuels Inc., Ltd. shipments (received in the same week) contained breached supersacks. The breaches did not result in loss of the material.
- Two British Nuclear Fuels Inc., Ltd. shipments had holes in tarps covering the packages.
- One Princeton Plasma Physics Lab shipment had two holes in one tarp covering packages.
- A small hole was detected in the bottom of one drum in a Fernald shipment.

### **4.0 EVALUATION OF SHIPPING CAMPAIGNS**

None of the 1,643 off site inbound and outbound shipments experienced an incident while in transit. No carrier vehicular accidents were reported. All generator-shipping campaigns were considered successful.

### **5.0 REFERENCES**

The primary sources of shipment information in this report were records kept by the Bechtel Nevada Waste Management Program, who manages the NTS RWMSs at Area 3 and Area 5. These records provided detailed information on each shipment of LLW and MLLW (dates received, generators, number and type of waste packages, volumes, weight, carrier, and final disposition of shipments). In addition, incident and accident information was gathered by reviewing other Bechtel Nevada and NNSA/NV correspondence and through personal communication with NNSA/NV managers, Bechtel Nevada management and

program personnel, representatives from the waste generator facilities, and carrier personnel. Route information was gathered from quarterly routing reports generated by NNSA/NV.

The following source documents are incorporated by reference:

- U.S. Department of Energy, Nevada Operations Office, “Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada” DOE/EIS 0243, Las Vegas, Nevada, August 1996.
- U.S. Department of Energy, Nevada Operations Office, “Mitigation Action Plan - Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada” DOE/EIS 0243, Las Vegas, Nevada, February 1997.
- U.S. Department of Transportation (DOT) 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, 1998

## **6.0 POINTS OF CONTACT**

The following are points of contact for questions concerning the transportation of radioactive waste at the NTS or for requests for information relating to waste management and NNSA/NV operations.

### **WASTE MANAGEMENT**

E. Frank DiSanza, Director  
U.S. Department of Energy  
National Nuclear Security Administration  
Nevada Operations Office  
Waste Management Division  
P.O. Box 98518  
Las Vegas, NV 89193-8518  
(702) 295-5855

## 7.0 ACRONYM LIST

|                       |   |
|-----------------------|---|
| <b>ft<sup>3</sup></b> | Cubic Feet  |
| <b>CFR</b>            | Code Of Federal Regulations   |
| <b>DOE</b>            | U.S. Department of Energy   |
| <b>DOT</b>            | U.S. Department of Transportation   |
| <b>dpm</b>            | Disintegrations per minute  |
| <b>EPA</b>            | U.S. Environmental Protection Agency  |
| <b>FY</b>             | Fiscal Year   |
| <b>ITLV</b>           | IT Corporation, Las Vegas   |
| <b>LLW</b>            | Low-level radioactive waste   |
| <b>MLLW</b>           | Mixed Low-Level Radioactive Waste   |
| <b>NNSA/NV</b>        | U.S. Department of Energy, National Nuclear Security Administration<br>Nevada Operations Office |
| <b>NRC</b>            | U.S. Nuclear Regulatory Commission  |
| <b>NTS</b>            | Nevada Test Site  |
| <b>PCB</b>            | Polychlorinated Biphenyls   |
| <b>RWMSs</b>          | Radioactive Waste Management Sites  |
| <b>WMD</b>            | Waste Management Division   |

## 8.0 DISTRIBUTION LIST

U.S. Department of Energy  
National Nuclear Security Administration  
Nevada Operations Office  
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P.O. Box 98518  
Las Vegas, NV 89193-8518

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