



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

April 20, 2015

10 CFR 30.36

Licensing Assistance Team
Division of Nuclear Materials Safety
U. S. Nuclear Regulatory Commission, Region I
2100 Renaissance Blvd., Suite 100
King of Prussia, Pennsylvania 19406-2713

Tennessee Valley Authority
Materials License Number 41-08165-19
Docket Number 030-38667
Mail Control No. 585991

Subject: By-Product Materials License Number 41-08165-19 for TVA's Mixed Waste Storage Facility – Response to the Request for Records Important to Decommissioning

- References:
1. Electronic Message from NRC to TVA, "Request for Records Important to Decommissioning" dated March 9, 2015.
 2. Letter from TVA to NRC, "By-Product Materials License Number 41-08165-19 for TVA's Mixed Waste Storage Facility – Request to Terminate NRC Materials License" dated January 27, 2015.

In Reference 1, the NRC requested TVA review the applicable regulations pertaining to the transfer of records of information important to decommissioning to the NRC to ensure their long-term availability. The NRC requested that the documents be provided within 30 days to enable the NRC to process TVA's license termination request that was provided in Reference 2. TVA's response, including the requested documents, is provided in the enclosures to this letter.

Information regarding the applicability of the regulations and associated records of information important to decommissioning is provided in Enclosure 1. Records of disposals, including waste manifests and waste disposal processing or disposal facility receipt records are provided in Enclosure 2. The records in Enclosure 2, waste manifests and associated documentation, provide the documentation necessary to demonstrate that all containers of mixed waste received and stored at the TVA's Mixed Waste Storage Facility as authorized by NRC Materials License No. 41-08165-19 were properly disposed by transfer to a waste processing or disposal facility.


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If you have any questions regarding this information, please contact Lee Miller at
(423) 751-3197.

Respectfully,

A handwritten signature in black ink, appearing to read "JW Shea". The signature is stylized and written in cursive.

J. W. Shea
Vice-President, Nuclear Licensing

Enclosures:

1. Records of Information Important to Decommissioning
2. Waste Manifests and Associated Documentation

Enclosure 1

Records of Information Important to Decommissioning

Records of Information Important to Decommissioning
For TVA's Mixed Waste Storage Facility
NRC Materials License No. 41-08165-19

- A. The regulations in 10 CFR 30.35(g), 40.36(f), and 70.25 (g), regard financial assurance and recordkeeping for decommissioning and apply to the licensed activities TVA conducted under NRC Materials License No. 41-08165-19 at the Mixed Waste Storage Facility (MWSF). TVA's response to each pertinent item of these regulations is provided below:

Each person licensed under this part shall keep records of information important to the decommissioning of a facility in an identified location until the site is released for unrestricted use. Information the Commission considers important to decommissioning consists of—

1. *Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.*

There are no records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site at the MWSF, and TVA has no knowledge that such events occurred. There are no known occurrences where licensed material spilled or otherwise leaked from the containers in which the waste was received and stored at the MWST. During the conduct of operations at the MWSF, surveys performed in support of receipt, storage, handling, routine operations, shipping, or other authorized licensed activities revealed no spills or leaks from waste containers and no areas of contamination were detected.

2. *As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.*

As-built drawings of the MWSF were provided in TVA's letter to NRC dated January 27, 2015, Subject: By-Product Materials License Number 41-08165-19 for TVA's Mixed Waste Storage Facility – Request to Terminate NRC Materials License, pages E2-10 through 12. There have been no modifications to the structures and equipment depicted in these drawings since the license was issued. There are no locations of possible inaccessible contamination such as buried pipes which may be subject to contamination at the MWSF.

3. *Except for areas containing only sealed sources (provided the sources have not leaked or no contamination remains after any leak) or byproduct materials having*

only half-lives of less than 65 days, a list contained in a single document and updated every 2 years of the following (30.35(g)(3) & 70.25(g)(3):

Or

Except for areas containing depleted uranium used only for shielding or as penetrators in unused munitions, a list contained in a single document and updated every 2 years, of the following (40.36(f)(3):

- a. *All areas designated and formerly designated as restricted areas as defined under 10 CFR 20.1003;*

The areas designated and formerly designated as restricted areas are the two structures identified as Mixed Waste Storage Building 1 and Mixed Waste Storage Building 2 in the as-built drawings provided in TVA's letter to NRC dated January 27, 2015, Subject: By-Product Materials License Number 41-08165-19 for TVA's Mixed Waste Storage Facility – Request to Terminate NRC Materials License, pages E2-10 through 12.

- b. *All areas outside of restricted areas that require documentation under §30.35(g)(1), 40.36(f)(1), or 70.25(g)(1);*

TVA has no records or knowledge of spills or other unusual occurrences involving the spread of contamination in areas outside of restricted areas at the MWSF.

- c. *All areas outside of restricted areas where current and previous wastes have been buried as documented under 10 CFR 20.2108; and*

TVA has no records or knowledge of disposal of mixed waste received at the MWSF in any area outside of restricted areas where current and previous wastes have been buried. Records provided in the Enclosure 2 indicate that all containers of mixed hazardous waste received at the MWSF were shipped to authorized recipients for processing and/or disposal.

- d. *All areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR part 20, subpart E, or apply for approval for disposal under 10 CFR 20.2002.*

There are no records of areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR Part 20, subpart E, or apply for approval for disposal under 10 CFR 20.2002. The only mixed waste received at the MWSF was stored in the two Mixed Waste Storage Buildings described in the NRC materials license and this material was transferred for disposal to off-site facilities authorized to process and/or receive mixed waste. TVA has no records or knowledge that another means of disposal was utilized nor any knowledge of areas outside of restricted areas that contain material such that, if the license

expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR Part 20, subpart E, or apply for approval for disposal under 10 CFR 20.2002.

4. *Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.*

TVA's decommissioning cost estimate was updated and provided to the NRC in a letter dated March 17, 2014, Subject: "By-Product Materials License Number 41-08165-19 for TVA's Mixed Waste Storage Facility – Low Level Radioactive Waste Storage License – Decommissioning Cost Update, Control No. 582602." The Statement of Intent included with this document was the funding method used for assuring funds would be available for the decommissioning of the MWSF.

- B. The regulations in 10 CFR 30.51(d) & (f), 40.61(d) & (f), and 70.51(a) apply to licensees authorized to possess radioactive material with a half-life greater than 120 days, source, and special nuclear material in an unsealed form and require the licensee to forward records related to various radioactive material disposal methods, release of radioactive effluents to the environment, and the records related to section A above, to the appropriate NRC Regional Office.

As described below, the TVA does not have any records to forward to the NRC regarding the MWSF and these regulations for the reasons given below:

1. **The TVA did not apply for approval of proposed disposal procedures not otherwise authorized in the regulations in 10 CFR Part 20 and has no knowledge of disposal of licensed material in any manner at the MWSF other than authorized in 10 CFR 20.2006, "Transfer for disposal and manifests."**
2. **The TVA has no records or knowledge of the disposal of licensed material at the MWSF as authorized in:**

**20.2003, "Disposal by release into sanitary sewerage."
20.2004, "Treatment or disposal by incineration".
20.2005, "Disposal of specific wastes."**

3. **The TVA has no knowledge of the release of radioactive effluents to the environment at the MWSF and therefore there are no records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment as required by 10 CFR 20.2103(b)(4).**

- C. **Records important to decommissioning associated with the MWSF are those records related to the transfer of the mixed waste to authorized waste processors and disposal facilities.**

The records, which represent the only method of waste disposal utilized to dispose of the mixed waste received and stored at the MWSF, include the waste manifests and related documents that serve as the record of receipt of the mixed waste by the waste processor and/or disposal facility. The records are provided in Enclosure 2.

Enclosure 2

Records Important to Decommissioning

Waste Manifests and Associated Documentation

NRC Form 540, Uniform Low-Level Radioactive Waste Manifest

Form 541 Uniform Low-Level Radioactive Waste Manifest -Container and Waste Description

Form 542 Uniform Low-Level Radioactive Waste Manifest - Manifest Index and Regional Compact Tabulation

EPA Form No. 8700-22, Uniform Hazardous Waste Manifest

Uniform Low-Level Radioactive Waste Manifest - Isotope Report

Certificate of Disposal

Mixed Waste Facility Excel Spreadsheet
Record of Receipts and Shipments
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1	A	B	C	D	E	F	G	H	I	J	K	L	M
1	DRUMNO	GEN DRUMNO	MANIFESTIN	RECEIVED	MANIFESTOUT	SHIPPED_OUT	EPA_CODES	WEIGHT	PROCESS	CHEMCOMP	GENERATOR	DISPOSER	BY
2	972293 91RWD407		HWSF003332	10/29/1997 00017		10/16/2000 D008		146	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
3	972294 LW101		HWSF003332	10/29/1997 00017		10/16/2000 D008		44	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
4	972295 LW102		HWSF003332	10/29/1997 00017		10/16/2000 D008		80	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
5	972296 95RWD010		HWSF003332	10/29/1997 00017		10/16/2000 D008		106	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
6	972297 95RWD050		HWSF003332	10/29/1997 00017		10/16/2000 D008		83	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
7	972298 96RWD001		HWSF003332	10/29/1997 00017		10/16/2000 D008		36	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
8	972299 96RWD166		HWSF003332	10/29/1997 00017		10/16/2000 D008		100	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
9	972300 97RWD028		HWSF003332	10/29/1997 00017		10/16/2000 D008		99	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
10	972301 97RWD035		HWSF003332	10/29/1997 00017		10/16/2000 D008		65	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
11	972302 97RWD053		HWSF003332	10/29/1997 00017		10/16/2000 D008		66	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
12	972303 97RWD083		HWSF003332	10/29/1997 00017		10/16/2000 D008		82	LEAD PAINT	LEAD PAINT SOLIDS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
13	980424 3709-05		HWSF003337	2/27/1998 00017		10/16/2000 D008		7	LEAD PAINT	RADIOACTIVE LEAD	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
14	981444 10777		HWSF003730	8/10/1998 003715091JIK		1/28/2008 D001 D007 D018 D035		183	PAINTING	LIQUID PAINT AND	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
15	981445 11079		HWSF003730	8/10/1998 003715091JIK		1/28/2008 D001 D008 D022 D035		146	PAINTING	LIQUID PAINT AND	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
16	982657 980842		HWSF003959	11/13/1998 003715091JIK		1/28/2008		8	CLEANUP OF	PCB DEBRIS INCLUDING	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
17	983035 4067-05-0		HWSF003734	12/21/1998 00017		10/16/2000 D009		10	LEAD BASE	LEAD PAINT CHIPS AND	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
18	983036 98-RWD-098		HWSF003734	12/21/1998 00017		10/16/2000 D008		53	LEAD BASE	LEAD CONTAMINATED	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
19	991418 98 RWD 137		HWSF004036	6/17/1999 00017		10/16/2000 D008		77	LEAD-BASED	LEAD-CONTAMINATED	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
20	991415 9995-05-0		HWSF004036	6/17/1999 00017		10/16/2000 D008		3	LEAD BASED	LEAD-CONTAM.	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
21	994269 HWSFMMW0304	ONSITEMW030400		3/4/2000 00017		10/16/2000 D008		62	NRC & ADEMI	Hard Debris Items i.e.	TVA HAZARDOUS WASTE STORAGE FACILITY	ENVIROCARE OF UTAH,	MW2
22	994706 ERC-121-00		HWSF004680	6/27/2000 00017		10/16/2000 D008		1	DISCARDING	LEAD/RAD	TVA ENVIRONMENTAL RESEARCH CENTER	ENVIROCARE OF UTAH,	MW2
23	994767 6192-05-0		HWSF004042	6/28/2000 00017		10/16/2000 D008		12	LEAD BASED	LEAD PAINT CHIPS,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
24	1001494 98-rwd-092		HWSF004771	4/16/2002 003715091JIK		1/28/2008 D008		87	Lead base paint	Rubber & cork gaskets,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
25	1004276 980381		HWSF004940	1/27/2003 003715091JIK		1/28/2008 D006 D007 D008		100	Removal of lead	LEAD PAINT/PAINT	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
26	1004277 020650		HWSF004940	1/27/2003 003715091JIK		1/28/2008 D006 D007 D008		105	Removal of lead	LEAD PAINT/PAINT	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
27	1004278 020797		HWSF004940	1/27/2003 003715091JIK		1/28/2008 D006 D007 D008		104	Removal of lead	LEAD PAINT/PAINT	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
28	1005224 02RWD001		HWSF006010	5/9/2003 003715091JIK		1/28/2008 D008		54	LEAD-BASE	LEAD-CONTAM. WASTE	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
29	1005664 020647		HWSF006248	6/17/2003 003715091JIK		1/28/2008 D007 D008		136	Removal of	PAINT CHIPS,	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
30	1005665 030572		HWSF006248	6/17/2003 003715091JIK		1/28/2008 D007 D008		45	Removal of	PAINT CHIPS,	TVA SEQUOYAH NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
31	1022668 90RWD269		0001218271JIK	10/18/2007 003715091JIK		1/28/2008		53		PCB DEBRIS GLOVES,	TVA BROWNS FERRY NUCLEAR PLANT	ENVIROCARE OF UTAH,	MW2
32	1022766 04-81		000121866JIK	10/16/2007 T074683		11/16/2007		217	This material is	USED OIL (RAD.	TVA POWER SERVICE SHOPS WILSON U-BUILDING	ENERGYSOLUTIONS,	MW2
33	1022767 02-77		000121866JIK	10/16/2007 T074683		11/16/2007		218	This material is	USED OIL (RAD.	TVA POWER SERVICE SHOPS WILSON U-BUILDING	ENERGYSOLUTIONS,	MW2
34	1022768 04-072		000121866JIK	10/16/2007 T074683		11/16/2007		123	spent voltz	SPENT VOLTZ CLEANER	TVA POWER SERVICE SHOPS WILSON U-BUILDING	ENERGYSOLUTIONS,	MW2
35	1023150 07-149		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		216	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
36	1023151 07-150		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		221	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
37	1023152 07-151		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		230	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
38	1023153 07-152		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		229	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
39	1023154 07-153		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		234	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
40	1023155 07-154		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		234	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
41	1023156 07-155		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
42	1023157 07-156		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		230	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
43	1023158 07-157		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		235	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
44	1023159 07-159		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
45	1023160 07-158		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		232	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
46	1023161 07-160		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
47	1023162 07-161		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
48	1023163 07-162		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		231	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
49	1023164 07-163		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		234	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
50	1023165 07-164		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
51	1023166 07-165		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		234	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
52	1023167 07-166		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		232	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
53	1023168 07-167		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		237	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
54	1023169 07-168		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		231	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW2
55	1023170 07-169		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		236	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
56	1023171 07-170		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		235	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
57	1023172 07-171		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		236	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
58	1023173 07-172		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		235	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
59	1023174 07-173		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
60	1023175 07-174		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		231	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
61	1023176 07-175		PSS120307-01	12/4/2007 002785862JIK		12/13/2007 D001		233	Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1

Mixed Waste Facility Excel Spreadsheet
 Record of Receipts and Shipments
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	A	B	C	D	E	F	G	H	I	J	K	L	M
1	DRUMNO	GEN DRUMNO	MANIFESTIN	RECEIVED	MANIFESTOUT	SHIPPED_OUT	EPA CODES	WEIGHT	PROCESS	CHEMCOMP	GENERATOR	DISPOSER	BAY
62	1023177	07-176	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		234 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
63	1023178	07-177	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		233 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
64	1023179	07-178	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		162 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
65	1023180	07-179	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		233 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
66	1023181	07-180	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
67	1023182	07-181	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		235 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
68	1023183	07-182	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		236 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
69	1023184	07-183	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		234 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
70	1023185	07-184	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		234 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
71	1023186	07-185	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
72	1023187	07-186	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		236 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
73	1023188	07-187	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		233 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
74	1023189	07-188	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
75	1023190	07-189	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
76	1023191	07-190	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		234 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
77	1023192	07-191	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		231 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
78	1023193	07-192	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		236 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
79	1023194	07-193	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		235 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
80	1023195	07-194	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		231 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
81	1023196	07-195	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		236 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
82	1023197	07-196	P55120307-03	12/4/2007	002785862JJK	12/13/2007	D001		235 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
83	1023198	07-197	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		213 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
84	1023199	07-198	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		238 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
85	1023200	07-199	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		237 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
86	1023201	07-200	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		237 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
87	1023202	07-201	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		233 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
88	1023203	07-202	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		237 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
89	1023204	07-203	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		230 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
90	1023205	07-204	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
91	1023206	07-205	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		232 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
92	1023207	07-206	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		233 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
93	1023208	07-207	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		228 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
94	1023209	07-208	P55120307-01	12/4/2007	002785862JJK	12/13/2007	D001		39 Rebuilding Rad	FLAMMABLE VPI RESIN	TVA POWER SERVICE SHOPS	DIVERSIFIED SCIENTIFIC	MW1
95	1044498	98-RWD-094	005679328JJK	7/31/2012	005342927FLE	4/25/2013	F002		53 Maintenance of	RAGS, PADS,	TVA BROWNS FERRY NUCLEAR PLANT	PERMA FIX OF FLORIDA,	MW2
96	1044499	11-RWD-091	005679328JJK	7/31/2012	005342927FLE	4/25/2013	D039 D040 F002		48 Cleanup debris	PCB <500 PPM,	TVA BROWNS FERRY NUCLEAR PLANT	PERMA FIX OF FLORIDA,	MW2
97	1045162	12-075	RA-120927-01	10/1/2012	005342927FLE	4/25/2013	D001		210 Varnish tank	VARNISH, FILTERS,	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
98	1045163	12-076	RA-120927-01	10/1/2012	005342927FLE	4/25/2013	D001		230 Varnish tank	VARNISH, FILTERS,	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
99	1045164	12-077	RA-120927-01	10/1/2012	005342927FLE	4/25/2013	D001		208 Varnish tank	VARNISH, FILTERS,	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
100	1045165	12-078	RA-120927-01	10/1/2012	005342927FLE	4/25/2013	D001		130 Varnish tank	VARNISH, FILTERS,	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
101	1045166	12-079	RA-120927-01	10/1/2012	005342927FLE	4/25/2013	D001		168 Varnish tank	VARNISH, FILTERS,	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
102	1045186	12-080	RA-121001-01	10/1/2012	005342927FLE	4/25/2013	D001		120 P554 varnish	VARNISH (<50% PEEL AWAY/LEAD	TVA POWER SERVICE SHOPS	PERMA FIX OF FLORIDA,	MW2
103	1046082	07-0030	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		86	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
104	1046080	121050	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		62 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
105	1046081	121090	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		91 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
106	1046082	121007	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		70 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
107	1046083	121016	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		88 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
108	1046084	121067	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		60 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
109	1046085	121222	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		71 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
110	1046086	121354	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		52 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
111	1046087	121474	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		62 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
112	1046088	121325	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		75 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2
113	1046089	120953	005681089JJK	2/22/2013	002226727JJK	6/12/2013	D008		100 Paint removal	PAINT CHIPS, RAGS	TVA SEQUOYAH NUCLEAR PLANT	ENERGYSOLUTIONS,	MW2

Attachment 1

Waste Manifest Numbers 0825-01-0001 and 0825-02-0001

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
0825-01-0001	00017	17	10/16/2000	Envirocare of Utah, Inc. Clive, UT	10/19/2000
0825-02-0001	00017	1	10/16/2000	Envirocare of Utah, Inc. Clive, UT	10/19/2000

NOTE: The contents of MWSF container number 994706 were placed inside MWSF container number 994269 (NRC Form 540 Manifest No. 0825-02-0001).

FORM 540 U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY TVA Hazardous Waste Storage Facility Paul Bernauer - P.O. 1010 AL Highway 133 N. At Wilson Dam Muscle Shoals AL 35661		SHIPMENT ID NUMBER RS-00-212		7. FORM 540 AND 540A PAGE 1 OF <u>5</u> PAGE(S) FORM 541 AND 541A <u>21</u> PAGE(S) ADDITIONAL INFORMATION <u>1</u> PAGE(S)		8. TRACKING NUMBER (Use this number on all continuation pages) 0825-01-0001									
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-237-2322 TVA Duty Ops. / 1-800-424-9300 Chem Trec 1-800-424-8802 National Response Center (RQ) Lead		USER PERMIT NUMBER 0825-01-0001		GENERATOR TYPE <input checked="" type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR		9. COSIGNEE - Name and Facility Address ENVIROCARE OF UTAH, INC. <i>MO4294</i> US I-80, Exit 49 Tooele County License No. UT 2300249 Amendment 10 Clive UT 84003		CONTACT Robert English Receiving Department TELEPHONE NUMBER (Include Area Code) (435) 884-0155									
ORGANIZATION Tennessee Valley Authority - Hazardous Waste Storage Facility		CONTACT Paul Bernauer / Jim Colagross (256) 314-7870 / (256) 386-3019		6. CARRIER - Name and Address Tri-state Motor Transit P.O. Box 113 Joplin MO 64802		EPA I.D. NUMBER MOD095038998		SIGNATURE <i>[Signature]</i> DATE 10/19/00									
2. IS THIS AN "EXCLUSIVE USE SHIPMENT?" <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 17		CONTACT Gerald Whisman		TELEPHONE NUMBER (Include Area Code) (800) 553-8768		10. SHIPPER CERTIFICATION "This is to certify that the here-in named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR part 20 and 61 or equivalent state regulations."									
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "Yes," provide Manifest Number		EPA MANIFEST NUMBER 00017		SIGNATURE - Authorized carrier acknowledging waste receipt <i>[Signature]</i>		DATE 10-16-00		AUTHORIZED SIGNATURE <i>[Signature]</i> TITLE RadCon Technician DATE 10-16-00									
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>		NA		NA		Solid/ Metal Oxides		Cr-51 Mn-54 Fe-55 Co-58 Co-60 Zn-65 Ag-110m Cs-137		2.73E+01 7.37E-01 mCi		LSA II		35.82 Kg 78.97 Lbs		(#1) 972298 96RWD001	
FOR CONSIGNEE USE ONLY <input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Violations Detected on this Shipment				20. Terms and Condition A. HAZARDOUS MATERIALS. Generator represents & warrants that this Waste Material <u>X</u> is (or) <u> </u> is not a hazardous waste as defined in 40CFR261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and complete hazardous waste manifest, along with the appropriate land-disposal restriction notice and by certification as required by 40CFR268.1. B. TITLE: Upon acceptance at the disposal site by Envirocare of Utah, Inc. and all appropriate regulatory authorities, title to the Waste Material which to Generator's representations herein shall hereupon transfer from Generator and be vested in Envirocare of Utah, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and Envirocare of Utah, Inc.'s facility license. D. INDEMNIFICATION: Generator agrees to indemnify Envirocare of Utah, Inc., its officers, employees and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data supplied on the (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.													

FORM 640A

U.S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)**

8. TRACKING NUMBER
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0825-01-0001

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11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIOISOTOPES		16. TOTAL PACKAGE ACTIVITY		17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
						MBq	mCi			
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.25E+01	3.38E-01	LSA II	64.675 Kg 142.57 Lbs	(#2) 972301 97RWD035
				Fe-55 Co-58	Ag-110m Cs-137					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.23E+01	3.32E-01	LSA II	82.45 Kg 181.77 Lbs	(#3) 972297 95RWD050
				Fe-55 Co-58	Ag-110m Cs-137					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.25E+01	3.39E-01	LSA II	65.835 kg 145.14 Lbs	(#4) 972302 97RWD053
				Fe-55 Co-58	Ag-110m Cs-137					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.21E+01	3.26E-01	LSA II	43.56 Kg 95.11 Lbs	(#5) 972294 LW101
				Fe-55 Co-58	Ag-110m Cs-137					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.91E+01	5.16E-01	LSA II	105.735 Kg 233.10 Lbs	(#6) 972296 95RWD010
				Fe-55 Co-58	Ag-110m Cs-137					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Mn-54	Co-60 Zn-65	1.27E+01	3.44E-01	LSA II	99.85 Kg 220.13 Lbs	(#7) 972299 96RWD186
				Fe-55 Co-58	Ag-110m Cs-137					

FORM 540A (4-97)

FORM 540A

U. S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)**

6. MANIFEST NUMBER
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11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIOISOTOPES	16. TOTAL PACKAGE ACTIVITY	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 Fissile Excepted (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Co-60 Mn-54 Zn-65	1.25E+01 : 3.37E-01	LSA II	81.755 Kg 180.27 Lbs	(#8) 972303 97RWD083
				Fe-55 Ag-110m Co-58 Cs-137				
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Co-60 Mn-54 Zn-65	1.18E+01 : 3.20E-01	LSA II	80.41 Kg 183.29 Lbs	(#9) 972295 LW102
				Fe-55 Ag-110m Co-58 Cs-137				
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Co-60 Mn-54 Zn-65	1.29E+01 : 3.47E-01	LSA II	145.854 kg 321.55 Lbs	(#10) 972293 91RWD407
				Fe-55 Ag-110m Co-58 Cs-137				
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) <i>RG</i>	NA	NA	Solids/ Dep Metal Oxides	Cr-51 Co-60 Mn-54 Zn-65	1.27E+01 : 3.44E-01	LSA II	98.901 Kg 218.04 Lbs	(#11) 972300 97RWD028
				Fe-55 Ag-110m Co-58 Cs-137				
Waste, Radioactive Material, Excepted Package-Limited Quantity of Material, 7, UN2910, Fissile Excepted (EPA D008)	NA	NA	Solids/ Dep Metal Oxides	Mn-54 Cs-137 Fe-55 Ce-144	2.56E-03 : 6.92E-05	N/A	6.993 Kg 15.42 Lbs	(#12) 980424 3709-05
				Co-60 Pu-238 Ni-63 Cm-243				
				Zn-65 (H-3-LLD) Sr-90 (C-14-LLD)				
				Ag-110m (Tc-99-LLD) Cs-134 (I-129-LLD)				

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FORM 540A

U. S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)**

 B. MANIFEST NUMBER
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11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIOISOTOPES		16. TOTAL PACKAGE ACTIVITY		17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 Fissile Excepted (EPA D008) (Lead Contaminated Solids)	NA	NA	Solids/ Dep Metal Oxides	C-14 Mn-54	Ce-144 Pu-238	7.80E-06	2.11E-07	LSA II	10 Kg 22.05 Lbs	(#13) 983035 ENV 4067-05-0
				Fe-55	Pu-241					
				Co-60	Cm-242					
				Ni-63	Cm-244					
				Sr-90	(H-3-LLD)					
				Ag-110m	(Tc-99-LLD)					
				Cs-134	(I-129-LLD)					
				Cs-137	(Ce-141-LLD)					
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 Fissile Excepted (EPA D008) (Lead Contaminated Solids)	NA	NA	Solids/ Dep Metal Oxides	C-14 Mn-54	Pu-238 Pu-241	2.31E-05	6.25E-07	LSA II	52.95 kg 116.52 Lbs	(#14) 983036 98RWD098
				Fe-55	Cm-242					
				Co-60	Cm-244					
				Ni-63	(H-3-LLD)					
				Sr-90	(Tc-99-LLD)					
				Ag-110m	(I-129-LLD)					
				Cs-137	(Ce-141-LLD)					
				Ce-144						
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 Fissile Excepted (EPA D008) (Lead Contaminated Solids)	NA	NA	Solids/ Dep Metal Oxides	C-14 Mn-54	Cs-137 Pu-241	1.25E-03	3.38E-05	LSA II	2.55 Kg 5.62 Lbs	(#15) 991419 3995-05-0
				Fe-55	Cm-242					
				Co-60	(H-3-LLD)					
				Ni-63	(Tc-99-LLD)					
				Zn-65	(I-129-LLD)					
				Sr-90	(Ce-141-LLD)					
				Cs-134						

FORM 540A (4-97)

FORM 540A

U. S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
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8. MANIFEST NUMBER
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11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY		17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
						MBq	mCi			
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 Fissile Excepted (EPA D008) (Lead Contaminated Solids)	NA	NA	Solids/ Dep Metal Oxides	C-14 Mn-54	Cs-134 Cs-137	4.23E+00	1.14E-01	LSA II	77 Kg 169.75 Lbs	(#16) 991418 98RWD137
				Fe-55 Co-60	Cm-242 Pu-241					
				Ni-63 Zn-65	(H-3-LLD) (Tc-99-LLD)					
				Sr-90 Ag-110m	(I-129-LLD) (Ce-141-LLD)					
Waste, Radioactive Material, Excepted Package-Limited Quantity, 7, UN2910, (EPA D008) (Lead Contaminated Solids)	NA	NA	Solids/ Dep Metal Oxides	Mn-54 Fe-55	Cs-134 Cs-137	4.19E-02	1.13E-03	N/A	12.2 Kg 26.90 Lbs	(#17) 994767 6192-05-0
				Ca-60 Ni-63	(H-3-LLD) (C-14-LLD)					
				Zn-65 Ag-110m	(Tc-99-LLD) (I-129-LLD)					

FORM 541 U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste	1. MANIFEST TOTALS						TST NUMBER J1-0001	0 825-01-0001
	# OF CONTAINERS/ DISPOSAL	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL			PAGE 1 OF 21 PAGES	
	17	m3 2.857 lB 100.78	kg 1068.5 lb 2351.6	U-233	U-235	PU		TOTAL
				NP	NP	(5 pkgs)	3.15E-10	4. GENERATOR NAME TVA Hazardous Waste Storage Facility
ACTIVITY (MBq/mCi)							SHIPMENT ID NUMBER RS-00-212	
	ALL NUCLIDES	TRITIUM	C-14	TC-99	I-129	SOURCE		
	MBq 162.87	LLD(uCi/cc)	1.95E-04	LLD	LLD	NP		
	mCi 4.4	[3.84E-15]	5.27E-06	[5.19E-15]	[5.92E-15]	NP		

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION (AL, AS, B, C)
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME	8. WASTE AND CONTAINER WEIGHT	9. SURFACE RADIATION	10. SURFACE CONTAMINATION	11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION					
						WASTE DESCRIPTOR (See Note 2)	APPROXIMATE WASTE VOLUME IN CONTAINERS	SOLIDIFICATION OR STABILIZATION MEDIA	CHEMICAL FORM	WEIGHT % CHELATING AGENT IF >0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL: OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT					
		m3 lB	kg lb	mSv/hr mRem/hr	MBq/100 cm2 dpm/100 cm2	ALPHA	BETA	m3 B3	See Note 3	Chelating Agent	RADIONUCLIDES	pCi/gm	MBq	mCi		
(1) 972298		0.212	35.82 Kg	0.04	<3.33E-7	<1.67E-5		0.207		Metal Oxide	Cr-51	1.97E+03	2.60E+00	7.04E-02		
96RWD001	3	7.5	78.97 Lb	4	<20	<1000	28	7.3	100	N/A	Mn-54	2.12E+03	2.80E+00	7.59E-02		
											Fe-55	4.58E+03	6.07E+00	1.64E-01		
											Co-58	2.74E+02	3.64E-01	9.83E-03		
											Co-60	8.44E+03	1.12E+01	3.02E-01		
											Zn-65	1.74E+03	2.30E+00	6.22E-02		
											Ag-110m	1.32E+03	1.75E+00	4.74E-02		
											Cs-137	1.37E+02	1.81E-01	4.90E-03		
											TOTALS	2.06E+04	2.73E+01	7.37E-01		

NOTE 1: CONTAINER DESCRIPTION CODES.
For containers/waste in overpacks, the numerical code must be followed by "-OP".

1. Wooden box or Crate	9. Demineralizer
2. Metal Totes	10. Gas Cylinder
3. Metal Drum or Pail	11. Bulk, Unpackaged Waste
4. Plastic Drum or Pail	12. Unpackaged Components
5. Tanker	13. High Integrity Container
6. Lab Pack	14. Other. Describe in Item 6 or additional page
7. Polyethylene tote Liner	
8. Fiberglass Tote Liner	

NOTE 2: WASTE DESCRIPTOR CODES. (Choose up to three which predominate by volume.)

20. Charcoal	29. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrations
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compactible Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompactible Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid	43. Activated Material
26. Filter Media	35. Glassware or Labware	59. Other. See Waste Profile Sheet
27. Mechanical Filter	36. Sealed Source/Device	
28. EPA or State Hazardous	37. Paint or Plating	

Note 3: Sorption, solidification, stabilization, media codes.
100 = None required

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION (AU, AS, B, C)	
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 L3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. WASTE DESCRIPTOR (See Note 2)	12. PHYSICAL DESCRIPTION		13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	14. CHEMICAL DESCRIPTION		INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL: OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA		APPROXIMATE WASTE VOLUME IN CONTAINERS m3 L3	CHEMICAL FORM CHELATING AGENT		WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm	MBq	mCi		
(2) 972301		0.212	64.675	0.003	<3.33E-07	<1.67E-05	28	0.207			METAL		Cr-51	4.98E+02	1.19E+00	3.22E-02	
97RWD035	3	7.5	142.58	0.3	<20	<1000		7.3	100		OXIDES / NA NP		Mn-54	5.37E+02	1.28E+00	3.47E-02	AU
													Fe-55	1.16E+03	2.78E+00	7.51E-02	
													Co-58	6.94E+01	1.66E-01	4.49E-03	
													Co-60	2.15E+03	5.14E+00	1.39E-01	
													Zn-65	4.40E+02	1.05E+00	2.85E-02	
													Ag-110m	3.35E+02	8.03E-01	2.17E-02	
													Cs-137	3.48E+01	8.33E-02	2.25E-03	
													TOTALS	5.23E+03	1.25E+01	3.38E-01	
(3) 972297		0.212	82.45	0.001	<3.33E-07	<1.67E-05	28	0.207			METAL		Cr-51	3.85E+02	1.17E+00	3.17E-02	
95RWD050	3	7.5	181.77	0.1	<20	<1000		7.3	100		OXIDES / NA NP		Mn-54	4.13E+02	1.28E+00	3.40E-02	AU
													Fe-55	8.94E+02	2.73E+00	7.37E-02	
													Co-58	5.35E+01	1.63E-01	4.41E-03	
													Continued on next page				

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

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DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							16. WASTE CLASSIFICATION (AU, AS, S, C)			
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 l3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 l3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES		pCi/gm	MBq	mCi
(4) 972302		0.212	65.835	0.003	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	4.91E+02	1.20E+00	3.23E-02	AU
97RW053	3	7.5	145.14	0.3	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	5.29E+02	1.29E+00	3.48E-02	
												Fe-55	1.14E+03	2.79E+00	7.53E-02	
												Co-58	6.83E+01	1.67E-01	4.50E-03	
												Co-60	2.12E+03	5.18E+00	1.40E-01	
												Zn-65	4.33E+02	1.05E+00	2.85E-02	
												Ag-110m	3.30E+02	8.03E-01	2.17E-02	
												Cs-137	3.42E+01	8.33E-02	2.25E-03	
												TOTALS	5.15E+03	1.25E+01	3.39E-01	
(5) 972294		0.212	43.56	<0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	7.16E+02	1.15E+00	3.12E-02	AU
LW101	3	7.5	96.05	<0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	7.70E+02	1.24E+00	3.60E-02	
												Fe-55	1.66E+03	2.68E+00	7.25E-02	
												Co58	9.95E+01	1.61E-01	4.34E-03	
												Continued on next page				

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	16. WASTE CLASSIFICATION (AU, AS, B, C)	
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 B3	8. WASTE AND CONTAINER WEIGHT kg b	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. PHYSICAL DESCRIPTION		14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION					
					11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 B3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm	MBq	mCi			
(6) 972296		0.212	105.735	0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	4.67E+02	1.83E+00	4.94E-02	
95RWD010	3	7.5	233.1	0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	5.03E+02	1.97E+00	5.32E-02	AU
												Fe-55	1.08E+03	4.26E+00	1.15E-01	
												Co-58	6.50E+01	2.54E-01	6.87E-03	
												Co-60	2.00E+03	7.81E+00	2.11E-01	
												Zn-65	4.12E+02	1.61E+00	4.36E-02	
												Ag-110m	3.14E+02	1.23E+00	3.32E-02	
												Cs-137	3.25E+01	1.27E-02	3.43E-03	
												TOTALS	4.88E+03	1.91E+01	5.16E-01	
(7) 972296		0.212	99.85	<0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	3.29E+02	1.22E+00	3.29E-02	
96RWD166	3	7.5	220.12	<0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	3.54E+02	1.31E+00	3.53E-02	
												Fe-55	7.65E+02	2.83E+00	7.64E-02	
												Co-58	4.59E+01	1.69E-01	4.58E-03	
											Continued on next page					

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U.S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

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DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION (AU, AS, B, C)
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 83	8. WASTE AND CONTAINER WEIGHT lbs b	9. SURFACE RADIATION mSv/hr mR/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 83	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	14. CHEMICAL DESCRIPTION		INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA				CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm	Bq	mCi	
(8) 972303		0.212	81.755	<0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	3.94E+02	1.19E+00	3.22E-02	AU
97RWD083	3	7.5	180.24	<0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	4.23E+02	1.28E+00	3.46E-02	
												Fe-55	9.16E+02	2.77E+00	7.49E-02	
												Co-58	5.48E+01	1.66E-01	4.48E-03	
												Co-60	1.70E+03	5.14E+00	1.39E-01	
												Zn-65	3.48E+02	1.05E+00	2.85E-02	
												Ag-110m	2.65E+02	8.02E-01	2.17E-02	
												Cs-137	2.73E+01	8.27E-02	2.24E-03	
												TOTALS	4.13E+03	1.25E+01	3.37E-01	
(9) 972295		0.212	80.41	<0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	3.80E+02	1.13E+00	3.06E-02	AU
LW102	3	7.5	177.3	<0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	4.08E+02	1.21E+00	3.28E-02	
												Fe-55	8.84E+02	2.63E+00	7.11E-02	
												Co-58	5.29E+01	1.57E-01	4.25E-03	
												Continued on next page				

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**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

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DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										18. WASTE CLASSIFI- CATION (AU, AS, B, C)			
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 lit	8. WASTE AND CONTAINER WEIGHT kgs lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. WASTE DESCRIPTOR (See Note 2)		12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 lit		13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	14. CHEMICAL DESCRIPTION CHEMICAL FORM CHELATING AGENT WEIGHT % CHELATING AGENT IF >0.1%		15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA						RADIONUCLIDES	pCi/gm	MBq		mCi		
(10) 972293		0.326	145.854	0.001	<3.33E-07	<1.67E-05	28. OP	0.322				METAL		Cr-51	2.27E+02	1.22E+00	3.31E-02	
91RWD407	3	11.5	321.55	0.1	<20	<1000		11.36		100		OXIDES / NA NP		Mn-54	2.45E+02	1.32E+00	3.57E-02	AU
														Fe-55	2.59E+02	2.86E+00	7.72E-02	
														Co-58	3.18E+01	1.72E-01	4.64E-03	
														Co-60	9.79E+02	5.29E+00	1.43E-01	
														Zn-65	2.01E+02	1.08E+00	2.93E-02	
														Ag-110m	1.53E+02	8.24E-01	2.23E-02	
														Cs-137	1.58E+01	8.54E-02	2.31E-03	
														TOTALS	2.38E+03	1.29E+01	3.47E-01	
(11) 972300		0.212	98.901	<0.001	<3.33E-07	<1.67E-05	28	0.207				METAL		Cr-51	3.31E+02	1.21E+00	3.28E-02	
97RWD028	3	7.5	218.04	<0.1	<20	<1000		7.3		100		OXIDES / NA NP		Mn-54	3.58E+02	1.31E+00	3.54E-02	AU
														Fe-55	7.73E+02	2.83E+00	7.64E-02	
														Co-58	4.64E+01	1.70E-01	4.59E-03	
														Continued on next page				

FORM 541A

U.S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

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DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION (AU, AS, B, C)		
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 83	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 83	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm		MBq	mCi
(12) 980424		0.019	6.993	<0.001	<3.33E-07	<1.67E-05	28	0.014		METAL		Mn-54	6.29E-01	1.63E-04	4.40E-06	AU
3709-05	3	0.67	15.42	<0.1	<20	<1000		0.5	100	OXIDES / NA	NP	Fe-55	2.74E+00	7.10E-04	1.92E-05	
												Co-60	3.96E+00	1.02E-03	2.77E-05	
												Ni-63	1.71E-01	4.44E-05	1.20E-06	
												Zn-65	3.29E-01	8.50E-05	2.30E-06	
												Sr-90	4.47E-03	1.16E-06	3.13E-08	
												Ag-110m	5.27E-01	1.36E-04	3.69E-06	
												Cs-134	7.70E-02	1.99E-05	5.38E-07	
												Cs-137	1.46E+00	3.77E-04	1.02E-05	
												Ce-144	7.11E-04	1.84E-07	4.98E-09	
												Pu-238	4.44E-05	1.15E-08	3.11E-10	
												Cm-243	4.94E-05	1.28E-08	3.46E-10	
												H-3 (LLD)	MBq/cc 4.33E-06	uCi/cc 1.17E-10		
												C-14 (LLD)	MBq/cc 3.07E-06	uCi/cc 8.30E-11		
												Continued on next page				

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	18. WASTE CLASSIFI- CATION (AU, AS, B, C)		
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 ft3	8. WASTE AND CONTAINER WEIGHT lbs kg	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. PHYSICAL DESCRIPTION		14. CHEMICAL DESCRIPTION		16. RADIOLOGICAL DESCRIPTION					
					ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 ft3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES			pCi/gm	MBq
(13) 983035		0.019	10	<0.001	<3.33E-07	<1.67E-05	28	0.014		METAL		C-14	1.10E-08	4.07E-10	1.10E-11	
ENV 4067-05-0	3	0.67	22	<0.1	<20	<1000		0.5	100	OXIDES / NA NP		Mn-54	3.80E-04	1.41E-07	3.80E-09	AU
												Fe-55	7.22E-03	2.67E-08	7.22E-08	
												Co-60	9.13E-03	3.38E-06	9.13E-08	
												Ni-63	6.59E-05	2.44E-08	6.59E-10	
												Sr-90	7.07E-06	2.62E-09	7.07E-11	
												Ag110m	5.10E-04	1.89E-07	5.10E-09	
												Cs-134	2.15E-04	7.96E-08	2.15E-09	
												Cs-137	3.56E-03	1.32E-06	3.56E-08	
												Ce-144	8.11E-07	3.00E-10	8.11E-12	
												Pu-238	1.01E-08	3.74E-12	1.01E-13	
												Pu-241	4.61E-06	1.71E-09	4.61E-11	
												Cm-242	4.29E-08	1.59E-11	4.29E-13	
												Cm-244	1.24E-08	4.59E-12	1.24E-13	
											Continue d on next page					

FORM 541A

U.S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

2. MANIFEST NUMBER

0825-01-0001

3.

PAGE 16 OF 21 PAGES

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						16. WASTE CLASSIFI- CATION (A, B, C)				
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 R3	8. WASTE AND CONTAINER WEIGHT lbs Lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION		11. PHYSICAL DESCRIPTION		14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION					
					MBq/100 cm2 dpm/100 cm2	ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 B3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT		WEIGHT % CHELATING AGENT (F > 0.1%)	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
										RADIONUCLIDES	pCi/gm	MBq	mCi			
(14) 983036		0.212	52.95	0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		C-14	5.66E-07	1.11E-09	3.00E-11	ALI
98-RWD-098	3	7.5	116.75	0.1	<20	<1000		7.3	100	OXIDES / NA NP		Mn-54	1.31E-03	2.56E-06	6.92E-08	
												Fe-55	3.72E-03	7.28E-06	1.97E-07	
												Co-60	4.72E-03	9.24E-06	2.50E-07	
												Ni-63	3.40E-05	6.65E-08	1.80E-09	
												Sr-90	2.53E-06	4.95E-09	1.34E-10	
												Ag110m	7.47E-04	1.46E-06	3.96E-08	
												Cs-137	1.28E-03	2.50E-06	6.76E-08	
												Ce-144	2.91E-07	5.69E-10	1.54E-11	
												Pu-238	3.64E-09	7.13E-12	1.93E-13	
												Pu-241	1.65E-06	3.24E-09	8.75E-11	
												Cm-242	1.54E-08	3.02E-11	8.15E-13	
												Cm-244	4.45E-09	8.72E-12	2.36E-13	
												H-3 (LLD)	MBq/cc 1.42E-10	uCi/cc 3.84E-15		
												Continued on next page				

FORM 541A

U.S. NUCLEAR REGULATORY COMMISSION

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

MANIFEST NUMBER

0825-01-0001

PAGE 18 OF 21 PAGES

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFI- CATION (ALL AS, B, C)
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 ft3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION		11. PHYSICAL DESCRIPTION		13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	14. CHEMICAL DESCRIPTION		INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					MBq/100 cm2 dpm/100 cm2	ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)		12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 ft3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT (F > 0.1%)	RADIONUCLIDES	pCi/gm	MBq	
(15) 991419		0.019	2.55	<0.001	<3.33E-07	<1.67E-05	28	0.014		METAL		C-14	8.30E-04	7.83E-08	2.12E-09	
3995-05-0	3	0.67	5.62	<0.1	<20	<1000		0.5	100	OXIDES / NA	NP	Mn-54	5.10E-01	4.81E-05	1.30E-06	
												Fe-55	4.40E+00	4.15E-04	1.12E-05	
												Co-60	6.20E+00	5.85E-04	1.58E-05	
												Ni-63	4.97E-02	4.69E-06	1.27E-07	
												Zn-65	2.89E-01	2.72E-05	7.36E-07	
												Sr-90	2.25E-03	2.12E-07	5.73E-09	
												Cs-134	6.50E-01	6.13E-05	1.66E-06	
												Cs-137	1.13E+00	1.07E-04	2.89E-06	
												Pu-241	1.43E-03	1.35E-07	3.66E-09	
												Cm-242	3.73E-06	3.52E-10	9.52E-12	
												H-3 (LLD)	1.98E-08	3.57E-12		
												Tc-99 (LLD)	2.68E-08	4.83E-12		
												I-129 (LLD)	3.05E-08	5.50E-12		
												Ce-141(LLD)	9.88E-08	1.78E-11		
												TOTALS	1.32E+01	1.25E-03	3.38E-05	

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							16. WASTE CLASSIFICATION (AU, AS, B, C)		
5. CONTAINER IDENTIFICATION NUMBER	8. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 ft3	8. WASTE AND CONTAINER WEIGHT kgs lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm2 dpm/100 cm2		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 ft3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm		MBq	mCi
(16) 991418		0.212	77	0.12	<3.33E-07	<1.67E-05	28	0.207		METAL		C-14	6.84E-02	1.95E-04	5.27E-06	AU
98RWD137	3	7.5	169.75	12	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	3.97E+01	1.13E-01	3.06E-03	
												Fe-55	3.62E+02	1.03E+00	2.79E-02	
												Co-60	5.09E+02	1.45E+00	3.92E-02	
												Ni-83	4.09E+00	1.17E-02	3.15E-04	
												Zn-65	6.35E+01	1.81E-01	4.89E-03	
												Sr-90	6.08E-01	1.73E-03	4.67E-05	
												Ag-110m	5.21E+01	1.48E-01	4.01E-03	
												Cs-134	1.49E+02	4.26E-01	1.15E-02	
												Cs-137	3.05E+02	8.70E-01	2.35E-02	
												Cm-242	1.01E-03	2.87E-06	7.75E-08	
												Pu-241	3.87E-01	1.10E-03	2.98E-05	
												H-3 (LLD)	MBq/cc 2.59E-05	uCi/cc 7.00E-10		
												Tc-99 (LLD)	MBq/cc 3.00E-05	uCi/cc 9.45E-10		
												Continued on next page				

FORM 641A

U.S. NUCLEAR REGULATORY COMMISSION

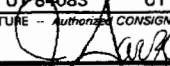
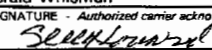
**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)**

2. MANIFEST NUMBER

0825-01-0001

3. PAGE 21 OF 21 PAGES

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	16. WASTE CLASSIFI- CATION (A, AS, B, C)		
5. CONTAINER IDENTIFICATION NUMBER	8. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m ³ B3	8. WASTE AND CONTAINER WEIGHT kg B	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION					
					11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m ³ B3	13. SOLIDIFICATION OR STABILIZATION MEDIA See Note 3	CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	RADIONUCLIDES	pCi/gm	MBq	mCi				
(17) 6192-05-0 994767	3	0.019 0.67	12.2 26.9	<0.001 <0.1	<3.33E-07 <20	<1.67E-05 <1000	28	0.014 0.5		METAL 100 OXIDES / NA NP		Mn-54 Fe-55	4.89E+00 2.89E+01	2.21E-03 1.30E-02	5.97E-05 3.52E-04	AU	
												Co-60 Ni-63	3.60E+01 7.16E-01	1.63E-02 3.23E-04	4.39E-04 8.74E-06		
												Zn-65 Ag-110m	1.95E+00 1.95E+00	8.82E-04 8.82E-04	2.38E-05 2.38E-05		
												Cs-134 Cs-137	1.11E+00 1.73E+01	5.03E-04 7.82E-03	1.36E-05 2.11E-04		
												H-3 (LLD) C-14 (LLD)	MBq/cc 8.51E-04 MBq/cc 2.86E-04	uCi/cc 2.30E-08 uCi/cc 7.74E-09			
												Tc-99(LLD) I-129(LLD)	MBq/cc 1.88E-04 MBq/cc 1.04E-04	uCi/cc 5.07E-09 uCi/cc 2.80E-09			
												TOTALS	9.28E+01	4.19E-02	1.13E-03		
SHIPMENT		3.158	1066.53														
TOTAL:		111.7	2499										4.13E+03	1.63E+02	4.40E+00		

FORM 540 U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY TVA Hazardous Waste Storage Facility Paul Bernauer - P.O. 1010 AL Highway 133 N. At Wilson Dam Muscle Shoals AL 35661		SHIPMENT ID NUMBER RS-00-212		7. FORM 540 AND 540A PAGE 1 OF <u>1</u> PAGE(S) FORM 541 AND 541A <u>2</u> PAGE(S) ADDITIONAL INFORMATION <u>1</u> PAGE(S)		8. TRACKING NUMBER (Use this number on all continuation pages) 0825-02-0001									
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-237-2322 TVA Duty Ops. / 1-800-424-9300 Chem Trec 1-800-424-8802 National Response Center (RQ) Lead		USER PERMIT NUMBER 0825-02-0001		GENERATOR TYPE COLLECTOR PROCESSOR		9. COSIGNEE - Name and Facility Address ENVIROCORE OF UTAH, INC. <u>Mo4293</u> US I-80, Exit 49 Tooele County License No. Clive UT 84083 UT 2300249 Amendment 10		CONTACT Robert English Receiving Department TELEPHONE NUMBER (Include Area Code) (435) 884-0155									
ORGANIZATION Tennessee Valley Authority - Hazardous Waste Storage Facility		CONTACT Paul Bernauer / Jim Colagross (256) 314-7870 / (256) 386-3019		TELEPHONE NUMBER (256) 314-7870 / (256) 386-3019		SIGNATURE - Authorized CONSIGNEE acknowledging waste receipt 		DATE 10/9/00									
2. IS THIS AN "EXCLUSIVE USE SHIPMENT?" <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address Tri-state Motor Transit P.O. Box 113 Joplin MO 64802		EPA I.D. NUMBER MOD095038998		10. SHIPPER CERTIFICATION This is to certify that the here-in named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR part 20 and 61 or equivalent state regulations.									
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		EPA MANIFEST NUMBER 00017		CONTACT Gerald Whisman SIGNATURE - Authorized carrier acknowledging waste receipt 		DATE 10-16-00									
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Waste, Radioactive Material, LSA, n.o.s., 7, UN2912 (EPA D008) (Lead Contaminated Solids) , RG		NA		NA		Solids/ Dep Metal Oxides		Cr-51 Pu-238 Mn-54 Cm-243 Fe-55 (H-3-LLD) Co-58 (Tc-99-LLD) Co-60 (I-129-LLD) Zn-65 (C-14-LLD) Ag-110m Pu-241 Cs-137 Cm-242 Ni-63 Cm-244 Sr-90 (Ce-141-LLD) Cs-134 Ce-144		1.84E+00 4.97E-02		LSA II		62 kg 137.02 Lbs		(#1) 994269	
FOR CONSIGNEE USE ONLY		<input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Violations Detected on this Shipment		20. Terms and Condition A. HAZARDOUS MATERIALS. Generator represents & warrants that this Waste Material <u>X</u> is (or) <u> </u> is not a hazardous waste as defined in 40CFR261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and complete hazardous waste manifest, along with the appropriate land-disposal restriction notice and by certification as required by 40CFR268.1. B. TITLE: Upon acceptance at the disposal site by Envirocare of Utah, Inc. and all appropriate regulatory authorities, title to the Waste Material which to Generator's representations herein shall hereupon transfer from Generator and be vested in Envirocare of Utah, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and Envirocare of Utah, Inc.'s facility license. D. INDEMNIFICATION: Generator agrees to indemnify Envirocare of Utah, Inc., its officers, employees and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data supplied on the (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.													

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS		SPECIAL NUCLEAR (GRAMS)			
# OF DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	U-233	U-235	TOTAL
1	m3 212 lit 7.5	kg 62 lb 137.02	NP	NP	(1 pkgs) 5.75E-15 5.75E-15
ACTIVITY (MBq/mCi)					
ALL NUCLIDES	TRITIUM	C-14	TC-99	I-129	SOURCE
1.84E+00	LLD	LLD	LLD	LLD	NP
4.97E-02	[8.46E-14]	[2.03E-14]	[1.27E-13]	[1.71E-11]	NP

2. MANIFEST NUMBER	0825-02-0001
3. PAGE	1 OF 2 PAGES
4. GENERATOR NAME	TVA Hazardous Waste Storage Facility
SHIPMENT ID NUMBER	RS-00-212

DISPOSAL CONTAINER DESCRIPTION

WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 lit	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION Level mSv/hr mRem/hr	10. SURFACE CONTAMINATION		11. PHYSICAL DESCRIPTION					15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION (NU, AS, B, C)
					MBq/100 cm2 dpm/100 cm2		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 lit	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION	WEIGHT % CHELATING AGENT IF >0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA/GAMMA						RADIONUCLIDES	pCi/gm	MBq	mCi	
(1) 994269	3	0.212	62	<0.001	<3.33E-07	<1.67E-05	28	0.207		METAL		Cr-51	7.66E+01	1.76E-01	4.75E-03	AU
		7.5	137.02	<0.1	<20	<1000		7.3	100	OXIDES / NA	NP	Mn-54	8.22E+01	1.89E-01	5.09E-03	
												Fe-55	1.78E+02	4.09E-01	1.10E-02	
												Co-58	1.07E+01	2.45E-02	6.61E-04	
												Co-60	3.30E+02	7.57E-01	2.05E-02	
												Zn-65	6.76E+01	1.55E-01	4.19E-03	
												Ag-110m	5.15E+01	1.18E-01	3.19E-03	
												Cs-137	5.29E+00	1.23E-02	3.28E-04	
												Package continued				
																on next page

NOTE 1: CONTAINER DESCRIPTION CODES.
For containers/waste in overpacks, the numerical code must be followed by "-OP".

1. Wooden box or Crate	9. Demeritaker
2. Metal Totes	10. Gas Cylinder
3. Metal Drum or Pail	11. Bulk Unpackaged Waste
4. Plastic Drum or Pail	12. Unpackaged Components
5. Tanker	13. High Integrity Container
6. Lab Pack	14. Other: Describe in Item 6 or additional page
7. Polystyrene Iota Liner	
8. Fiberglass Tote Liner	

NOTE 2: WASTE DESCRIPTOR CODES. (Choose up to three which predominate by volume.)

20. Charcoal	29. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrations
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compressible Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompressible Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid	43. Activated Material
26. Filter Media	35. Glassware or Labware	59. Other: See Waste Profile Sheet
27. Mechanical Filter	36. Sealed Source/Device	
28. EPA or State Hazardous	37. Paint or Plating	

Note 3: Sorption, solidification, stabilization, media codes.
100 = None required

10/16/2000

U.S. NUCLEAR REGULATORY COMMISSION
**UNIFORM LOW-LEVEL RADIOACTIVE
 WASTE MANIFEST**
 CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

2. MANIFEST NUMBER
 0825-02-0001
 3. PAGE 2 OF 2 PAGES

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION (AU, AS, S, C)		
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME m3 L3	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION mSv/hr mRem/hr	10. SURFACE CONTAMINATION		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME IN CONTAINERS m3 L3	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF >0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT					
					MBq/100 cm2 dpm/100 cm2	ALPHA						BETA	RADIONUCLIDES	pCi/gm		MBq	mCi
(1) 994269												Ni-63	3.80E-04	8.71E-07	2.36E-08		
												Sr-90	1.68E-05	3.86E-08	1.04E-09		
													Cs-134	4.73E-03	1.08E-05		2.93E-07
													Ce-144	8.03E-08	1.85E-10		4.98E-12
													Pu-238	5.02E-09	1.15E-11		3.11E-13
													Cm-243	5.58E-09	1.28E-11		3.46E-13
													H-3 (LLD)				uCi/cc 8.46E-14
													Tc-99(LLD)				uCi/cc 1.27E-13
													I-129 (LLD)				uCi/cc 1.71E-11
													C-14 (LLD)				uCi/cc 2.03E-14
													Pu-241	1.04E-05	2.39E-08		6.45E-10
													Cm-242	2.71E-08	6.22E-11		1.68E-12
												Cm-244	3.81E-12	8.73E-15	2.36E-16		
												Ce-141(LLD)			uCi/cc 2.79E-13		
												TOTALS	8.02E+02	1.84E+00	4.97E-02		

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. AL 2640090005	Manifest Document No. 000017	2. Page 1 of 2	Information in the shaded areas is not required by Federal law.	
		3. Generator's Name and Mailing Address TVA-Hazardous Waste Storage Facility ATTN: Libby Pitts P.O. Box 1010 Muscle Shoals, AL 35662		A. State Manifest Document Number 00017		
4. Generator's Phone (256) 314-7871		6. US EPA ID Number MOD095038998		B. State Generator's ID		
5. Transporter 1 Company Name Tri-State Motor Transit Company		8. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone 1-800-234-8768		
9. Designated Facility Name and Site Address Envirocare of Utah, Inc. Clive Disposal Site Interstate 80, Exit 49		11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 1-435-884-0155		
GENERATOR	12. Containers		13. Total Quantity		14. Unit Wt/Vol	
	a. RQ Waste Radioactive Material, LSA, N.O.S., 7, UN2912, (EPA Waste Code D008-Solids)		No. Type	Quantity		Waste No.
			0 0 1 D M	0 0 0 6 2		K D008
	b. RQ Waste Radioactive Material, LSA, N.O.S., 7, UN2912 (EPA Waste Code D008-Solids)		0 1 0 D M	0 0 8 2 5		K D008
	c. RQ Waste Radioactive Material, LSA, N.O.S., 7, UN2912, Fissile Excepted (EPA D008-Solids)		0 0 1 D M	0 0 0 8 2		K D008
d. X Waste Radioactive Material, LSA, N.O.S., 7, UN2912, Fissile Excepted (EPA D008-Solids)		0 0 4 D M	0 0 1 4 3		K D008	
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
11a. Mixed Waste-Disposal Profile 0825-02 (Debris D008)						
11b. Mixed Waste-Disposal Profile 0825-01 (D008)						
11c. Mixed Waste-Disposal Profile 0825-01 (D008)						
11d. Mixed Waste-Disposal Profile 0825-01 (D008)						
15. Special Handling Instructions and Additional Information				TVA Contract No. 99PFP-253768-000 0825-02-M04224		
11a. ERG 162 11d. ERG 162				Emergency Contact: Chemtrec 1-800-424-9300		
11b. ERG 162 <i>shipment HS 0825-01-0001</i>				TVA ODS Contact: 1-800-237-2322 0825-01-M04294		
11c. ERG 162 <i>0825-02-0001</i>						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.						
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name B. Paul Bernauer		Signature <i>B Paul Bernauer</i>		Month Day Year 11/11/00		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name <i>Stephen Whitford</i>		Signature <i>Stephen Whitford</i>		Month Day Year 11/11/00	
	18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
FACILITY	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
	Printed/Typed Name J GARZA		Signature <i>J Garza</i>		Month Day Year 11/01/00	

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. AL2640090005	Manifest Document No. 00017	22. Page 2 of 2	Information in the shaded areas is not required by Federal law.	
		23. Generator's Name ATTN: Libby Pitts TVA-Hazardous Waste Storage Facility P. O. Box 1010 Muscle Shoals, Alabama 35662 (256)314-7871		L. State Manifest Document Number		
24. Transporter <u>1</u> Company Name Tri-State Motor Transit Company		25. US EPA ID Number MOD095038998		N. State Transporter's ID		M. State Generator's ID
26. Transporter _____ Company Name		27. US EPA ID Number		O. Transporter's Phone 1-800-234-8768		P. State Transporter's ID
				Q. Transporter's Phone		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers		30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
		No.	Type			
a.	Waste Radioactive Material, Excepted Package-Limited Quantity of Material, 7, UN2910	001	DM	00007	K	D008
b.	Waste Radioactive Material, Excepted Package-Limited Quantity of Material, 7, UN2910	001	DM	00012	K	D008
c.						
d.						
e.						
f.						
g.						
h.						
i.						
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above		
11a. Mixed Waste Disposal Profile 0825-01 (Fissile Excepted-D008)						
11b. Mixed Waste Disposal Profile 0825-01 (D008)						
32. Special Handling Instructions and Additional Information				Shipment #s 0825-01-0001 0825-02-0001		
28a. ERG 161 TVA Contract No. 99PFP-253768-000						
28b. ERG 161 Emergency Contact: Chemtrec 1-800-424-9300 TVA ODS Contact: 1-800-237-2322						
TRANSPORTER	33. Transporter <u>1</u> Acknowledgement of Receipt of Materials			Date		
	Printed/Typed Name <i>Stephen W. Howard</i>	Signature <i>Stephen W. Howard</i>		Month	Day Year	
FACILITY	34. Transporter _____ Acknowledgement of Receipt of Materials			Date		
	Printed/Typed Name	Signature		Month	Day Year	
35. Discrepancy Indication Space						

UNIFORM LOW LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPE REPORT
For Manifest # 0825-01-0001
Envirocare of Utah, Inc.

ISOTOPE	<u>Total Activity</u>	
	MBq	mCi
Cr-51	1.51E+01	4.09E-01
Mn-54	1.64E+01	4.43E-01
Fe-55	3.63E+01	9.80E-01
Co-58	2.11E+00	5.70E-02
Co-60	6.66E+01	1.80E+00
Zn-65	1.35E+01	3.66E-01
Ag-110m	1.03E+01	2.79E-01
Cs-137	1.93E+00	5.22E-02
Ni-63	1.20E-02	3.25E-04
Sr-90	1.73E-03	4.67E-05
Cs-134	4.26E-01	1.15E-02
Ce-144	1.85E-07	5.00E-09
Pu-238	1.15E-08	3.11E-10
Cm-243	1.28E-08	3.46E-10
C-14	1.95E-04	5.27E-06
Pu-241	1.10E-03	2.98E-05
Cm-242	2.87E-06	7.75E-08
Cm-244	1.33E-11	3.60E-13

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT
For Manifest # 0825-02-0001
Envirocare of Utah, Inc.

ISOTOPE	Total Activity	
	(MBq)	(mCi)
Cr-51	1.76E-01	4.75E-03
Mn-54	1.89E-01	5.09E-03
Fe-55	4.09E-01	1.10E-02
Co-58	2.45E-02	6.61E-04
Co-60	7.57E-01	2.05E-02
Zn-65	1.55E-01	4.19E-03
Ag-110m	1.18E-01	3.19E-03
Cs-137	1.23E-02	3.28E-04
Ni-63	8.71E-07	2.36E-08
Sr-90	3.86E-08	1.04E-09
Cs-134	1.08E-05	2.93E-07
Pu-238	1.15E-11	3.11E-13
Cm-243	1.28E-11	3.46E-13
Pu-241	2.39E-08	6.45E-10
Cm-242	6.22E-11	1.68E-12
Cm-244	8.73E-15	2.36E-16
Ce-144	1.85E-10	4.98E-12

CERTIFICATE OF DISPOSAL

3 miles South, Exit 49, I-80
Clive, Utah 84029
EPA ID: UTD982598898


Tennessee Valley Authority, Muscle Shoals

This certificate acknowledges that the following manifested shipments have been disposed of as listed below:

<u>Shipment</u>	<u>Manifest</u>	<u>Disposal Date</u>	<u>Volume (Cu/Ft)</u>	<u>Process</u>	<u>Disposal Location</u>
0825-01-0001	00017	06/19/2001	111.7	Landfill	Mixed Waste

The total volume above represents the cubic feet of waste disposed of at EnergySolutions' Disposal Facility Landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.



4/17/15
Date



ENVIROCARE OF UTAH, INC.

THE SAFE ALTERNATIVE

CERTIFICATE OF DISPOSAL

Tennessee Valley Authority

This Certificate acknowledges that the following manifested shipments:

0825-02-0001

Representing 7.5 cubic feet of waste have been disposed in Envirocare's Mixed Waste Disposal Facility. Disposal is subject to Envirocare's Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

A handwritten signature in black ink, appearing to read "Jesse C. Garcia", is written over a horizontal line.

Jesse C. Garcia
Mixed Waste Storage and Disposal Manager

2/20/01
Date

Attachment 2

Waste Manifest Numbers 0825-03-0001

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
0825-03-0001	003715092JJK	2	1/28/2008	Energy Solutions Clive Disposal Site Clive, UT	2/1/2008

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by EPA to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Read comments regarding burden estimate to the Records and Privacy Service Branch (T-8 P&S), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, HHS-10202, (202-456-6144), Office of Management and Budget, Washington, DC 20503. If a waste used to improve an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		EnergySolutions, Clive Disposal Site		SHIPPER - NAME AND FACILITY		SHIPMENT ID NUMBER		7. FORM 540 AND 546A FORM 541 AND 541A FORM 542 AND 542A ADDITIONAL INFORMATION		8. MANIFEST NUMBER									
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (888) 220-1655				UTAH DISPOSAL PERMIT NUMBER 0711 004 680		SHIPMENT NUMBER 0825-03-0001		COLLECTOR		PAGE 1 OF 1 PAGE(S) 2 PAGE(S) 1 PAGE(S) 1 PAGE(S)		0825-03-0001							
ORGANIZATION Duratek Inc.				CONTACT B. Bernauer		TELEPHONE NUMBER (Include Area Code) (258) 314-7870		9. CONSIGNEE - Name and Facility Address EnergySolutions, Clive Disposal Site Operated By EnergySolutions Tooele County, US I-80 Exit 49 Clive, UT 84029		CONTACT Treatment Facility TELEPHONE NUMBER (Include Area Code) 435-884-0155		PR05475 <i>[Signature]</i>							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 2		8. CARRIER - Name and Address Hibman Transport Services 1560 Bear Creek Road Oak Ridge, TN 37830		EPA I.D. NUMBER THD-66-778-3065		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Quats de</i>		DATE 2/1/08							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "Yes", provide Manifest Number				EPA MANIFEST NUMBER 003715082 JJK		CONTACT Karen Kirby		TELEPHONE NUMBER (Include Area Code) 800-233-0933		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.		DATE 01/28/2008							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)				12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
NON DOT REGULATED SOLID-PCB (50 OR GREATER PPM, < 1 LB) DAW 1 - 5 GALLON DRUM				NA		NA		SOLID/METAL OXIDES		AG-110M; C-14; CE-144; CO-67; CO-59; CO-60; CR-51; CS-134; CS-137; FE-55; FE-69; H-3; I-129; MN-54; NB-95; NI-63; SB-124; SB-125; SN-113; TC-99; ZR-96		1,4684E-02 (3.9632E-04)		NA		0.68 m ³		08-00008 (982657)	
UN2910, Radioactive material, excepted package-limited quantity of material, 7 DAW 1 - 55 GALLON DRUM				NA		NA		SOLID/METAL OXIDES		AG-110M; C-14; CO-60; CR-51; CS-134; CS-137; FE-55; H-3; I-129; MN-54; NI-63; TC-99; ZN-65		9.7371E+00 (2.6317E-01)		NA		7.50 m ³		08-00010 (1022668)	
FOR CONSIGNEE USE ONLY				<ul style="list-style-type: none"> <input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Violations Detected on this Shipment 				20. TERMS AND CONDITIONS A. HAZARDOUS MATERIALS: Generator represents and warrants that Waste Material is (or) is not hazardous waste as defined in 40 CFR 261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and complete hazardous waste manifest, along with the appropriate land-disposal restriction codes and/or certifications as required by 40 CFR 268.1. B. TITLE: Upon acceptance at the disposal site by EnergySolutions, Inc. and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall thereafter transfer from Generator and be vested in EnergySolutions, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, and regulations and provisions of Utah, Inc.'s facility license. D. INDENTIFICATION: Generator agrees to indemnify EnergySolutions, Inc., its officers, employees, and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform to the data reported on this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST, or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.											

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (T-6 PKZ), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0891, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-1922, (3160-0160), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541		EnergySolutions, Clive Disposal Site		1. MANIFEST TOTALS										2. MANIFEST NUMBER		
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION				NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams)				0825-03-0001					
				2	m ³ 8.18000 ton	38.80000 0.04034	U-235	U-238	Pu	TOTAL	PAGE 1 OF 2 PAGE(S)					
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste				ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)						4. SHIPPER NAME						
				ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	TVA Hazardous Waste Storage Facility/CIO Env							
DISPOSAL CONTAINER DESCRIPTION				MBq	3.7519E+00	4.2010E-05	1.4201E-03	9.4128E-04	5.1730E-04	NP	SHIPMENT ID NUMBER					
				mCi	2.8356E-01	1.1354E-04	3.8289E-05	2.5440E-05	1.3951E-05	NP	0825-03-0001					
3. CONTAINER DESCRIPTION																
CONTAINER IDENTIFICATION NUMBER	CONTAINER DESCRIPTION (See Note 1 & 1A)	VOLUME m ³ lit	WASTE AND CONTAINER WEIGHT kg ton	SURFACE RADIATION LEVEL mSv/hr mrem/hr	SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		WASTE DESCRIPTION (See Note 2 & Note 2A)	APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ lit	SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	12. RADIOLOGICAL DESCRIPTION				15. WASTE CLASSIFICATION A - Class A B - Class B C - Class C
					ALPHA	BETA-GAMMA						INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
4. In-situ Container																
08-00008 (98287)	4 Original AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Highway 123N near Wilson Dam Muscle Shoals, AL 35861	0.018261	8.00000	0.005	< 0.000003674	< 0.00003674	H 40	0.018261	100	SOLID METAL OXIDES / NP	NP	AG-110M	1.1800E-01	2.5198E-05	7.2890E-07	ALL
		0.98000	0.00882	0.5	< 220	< 2200		0.98000				C-14	1.8000E-01	3.9600E-05	1.8000E-06	
												CS-134	1.8500E-01	3.4410E-05	8.3000E-07	
												CO-57	8.3833E-02	2.0918E-06	5.8900E-07	
												CO-58	2.7333E-01	5.0800E-03	1.8400E-04	
												CO-60	8.0000E-00	1.1100E-03	3.0000E-05	
												CR-51	1.7000E+00	3.7740E-04	1.0200E-05	
												CS-134	3.7868E-01	8.3620E-05	2.2800E-06	
												CS-137	1.7187E+00	1.8000E-05	1.8000E-05	
												FE-55	1.0899E-01	2.4309E-03	6.8700E-05	
												FE-59	2.2000E-01	4.8840E-05	1.3200E-05	
												H-3	4.2333E-01	9.3900E-05	2.5400E-06	
												I-129	8.8333E-02	2.1497E-05	6.8100E-07	
												MO-94	1.9833E-01	8.8430E-05	2.3900E-06	
												NB-95	5.7333E+00	1.2728E-03	3.4400E-05	
												NI-63	5.7333E+00	1.2836E-03	3.4700E-05	
												SB-124	6.7966E-02	1.5022E-05	4.0800E-07	
												SB-125	3.8900E-01	1.8377E-04	5.0100E-06	
												SN-113	2.4833E-01	5.8150E-05	1.4900E-06	
												TC-99	1.7333E-01	3.8480E-05	1.0400E-06	
												ZR-95	4.4900E+00	9.8790E-04	2.8700E-05	
												Sub Total	8.8053E+01	1.4884E-02	3.9632E-04	
													8.8053E+01	1.4884E-02	3.9632E-04	

NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the overpack code must be followed by "OP."

- Washer Box or Crate
- Steel Drum
- Plastic Drum or Pail
- Steel Drum or Pail
- Steel Tank or Liner
- Concrete Tank or Liner
- Polyethylene Tank or Liner
- Plastic Tank or Liner
- Drum/Crate
- Gas Cylinder
- Box, Unpackaged Waste
- Unpackaged Composites
- High Integrity Container
- Other. Describe in Item 4, or additional page

NOTE 1A: Bulk Packaging Description Codes (Choose one code as they be applicable.)

- Concrete
- Inert/Inert
- End-cap
- Roll-off
- Reinforced

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

- Charcoal
- Inert/Inert Ash
- Sol
- Gas
- Oil
- Aqueous Liquid
- Filter Media
- Mechanical Filter
- EPA or State Reservoirs
- Demolition Rubble
- Cold Ion-exchange Media
- Hot Ion-exchange Media
- Mixed Bed Ion-exchange Media
- Organic Liquid (except oil)
- Glassware or Labware
- Safety Storage Device
- Pit or Piling
- Evaporator Bottoms/Solids
- Composites
- Compressible Trash
- Non-compressible Trash
- Artificial Corrosion
- Biological Material (except animal carcass)
- Acetylene Material
- Safety Storage Device
- Other. Describe in Item 11, or additional page

NOTE 2A: Specific Waste Descriptors (Choose all applicable codes.)

- Organic
- Solid
- Combustible
- Non-combustible
- Air Pollution Filter
- Asbestos

NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal life span/leachability requirements, the numerical code must be followed by "S" and the media vendor and brand name must also be identified in Item 13. Code 100=None Required

Solidification:

- Concrete
- Concrete (recycled/aggregate)
- Bitumen
- Wet Slurk Systems
- Other. Describe in Item 13, or additional page
- None Required

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (7-3 FSL), U.S. Nuclear Regulatory Commission, Washington, DC 20585-0861, or by Internet e-mail to infocoll@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10202, (3160-0108), Office of Management and Budget, Washington, DC 20503. If a notice used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541A		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										EnergySolutions, Clive Disposal Site		Z. MANIFEST NUMBER 0625-03-0001		
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)														3. PAGE 2 OF 2 PAGE(S)		
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION		
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1 & 1A)	7. VOLUME m ³ / R ³	8. WASTE AND CONTAINER WEIGHT kg / ton	9. SURFACE RADIATION LEVEL mSv/hr / rem/hr	10. SURFACE CONTAMINATION Bq/100 cm ² / dpm/100 cm ²	11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION A0 - Class A A1 - Class A U - Class A B - Class B C - Class C	
						11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUMES IN CONTAINER m ³ / R ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT					
											RADIONUCLIDES pCi/gm MBq mCi					
08-000190 (1023689) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133M near Wilson Dam Muscle Shoals, AL 35661	4	0.21238	32.80000	0.005	< 0.00003874	< 0.00003874	H 40	0.21238	108	SOLID METAL OXIDES / NP	NP	A0-110M	3.5948E+02	4.0700E-01	1.9000E-02	AU
		7.90000	0.05798	0.5	< 220	< 2200		7.50000				C-14	1.2189E+00	1.3801E-03	3.7300E-05	
												CO-60	3.6294E+03	3.9080E+00	1.0800E-01	
												CR-51	8.7254E+01	9.8790E-02	2.6700E-03	
												C3-134	2.5973E+02	3.3488E-01	8.0598E-03	
												CS-137	7.2873E+02	8.2910E-01	2.2398E-02	
												FS-46	2.8233E+03	3.1988E+00	8.8400E-02	
												H-3	3.8274E+00	4.1070E-03	1.1100E-04	
												I-129	4.3791E-01	4.9500E-04	1.3400E-05	
												MN-54	3.8238E+02	4.3280E-02	1.1700E-02	
												NR-83	7.0688E+01	7.8820E-02	2.1600E-03	
												TC-99	7.9738E-01	9.0280E-04	2.4400E-05	
												ZN-65	3.1898E+02	3.5890E-01	9.7000E-03	
												Sub Total	6.8002E+03	9.7371E+00	2.6317E-01	
Package Total													6.8002E+03	9.7371E+00	2.6317E-01	
Shipment Total		0.23164	36.80000											9.7518E+00	2.6366E-01	
		8.18000	0.06880													

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Privacy Service Branch (7-8 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NECS-1822, (3165-0165), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 542		EnergySolutions, Clive Disposal Site		1. WASTE COLLECTOR/PROCESSOR							2. MANIFEST NUMBER					
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST				NAME		SHIPPER USE ONLY					0825-03-0001					
MANIFEST INDEX AND REGIONAL COMPACT TABULATION				TVA Hazardous Waste Storage Facility/CO EnergySolutions							PAGE 1 OF 1 PAGE(S)					
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators				SHIPPING DATE												
				01/28/2008												
AS PROCESSED/COLLECTED TOTAL																
3. GENERATOR NAME AND TELEPHONE NUMBER	4. GENERATOR FACILITY ADDRESS	5A. WASTE DESCRIPTION (NOMENCLATURE)	6. PREPROCESSED WASTE (OR MATERIAL) VOLUME		7. MANIFEST NUMBER UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	8. WASTE CODE	9. ORIGINATOR'S COMPACT REGION OR STATE	10. A. SOURCE MATERIAL		11. B. SNM	C. ACTIVITY		D. VOLUME		E. WEIGHT	F. MAXIMUM RADIATION LEVEL (mrem/yr)
			m ³	kg				(a)	(b)		(a)	mCi	m ³	kg		
TVA Hazardous Waste Storage Facility (258) 314-7670	TVA Reservation Road/Hwy 133N near Wrenn Dam Wetzel, AL 35891	Solid	0.23164	8.18008	Onsite Generation 01/28/2008	C	AL	NP	NP	NP	0.7918E+00	2.6358E-01	0.23164	8.18008	80.08860	8.5
TOTALS OF ALL PAGES (FORMS 542 AND 542A)																
								NP	NP	NP	0.7918E+00	2.6358E-01	0.23164	8.18008	80.08860	N/A

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL 26H0090005	2. Page 1 of 1	3. Emergency Response Phone 865 220 1555		4. Manifest Tracking Number 003715092 JJK					
		5. Generator's Name and Mailing Address TVA Hazardous Waste Storage Facility EIO Energy Solutions TVA RESERVATION ROAD HWY 155 N. near Wilson Dam						Generator's Site Address (if different than mailing address)			
		Generator's Phone: (256) 314-7876 Muscle Shoals AL 35661									
6. Transporter 1 Company Name Hittman Transport Services								U.S. EPA ID Number UTD 987783065			
7. Transporter 2 Company Name								U.S. EPA ID Number			
8. Designated Facility Name and Site Address Energy Solutions, Clive Disposal Site Tooele County, UT I 80, Exit 49 CLIVE UT 84029								U.S. EPA ID Number UTD 982598898			
Facility's Phone: (435) 884-0155											
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		1. NOU DOT REGULATED SOLID - PCB (500g greater PPM, < 1 lb)			No.	Type					
		2. UN 2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - LIMITED QUANTITY OF MATERIAL, 7									
		3.									
		4.									
14. Special Handling Instructions and Additional Information 1) PCB type-debris out of service date - 10/15/98 ERG-NA 2) PCB type-debris out of service date - 12/20/89 ERG-161 container 26316 - RD 2004530 Shipment #025-03-0001											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name DAVID W WIFFEN				Signature <i>DWW</i>				Month Day Year 10 28 08			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____											
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials										
	Transporter 1 Printed/Typed Name ERNEST PROCTOR				Signature <i>Ernest Proctor</i>				Month Day Year 1 18 08		
Transporter 2 Printed/Typed Name				Signature				Month Day Year			
DESIGNATED FACILITY	18. Discrepancy										
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
	18b. Alternate Facility (or Generator)						U.S. EPA ID Number				
	Facility's Phone: _____										
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H129			2. H129			3.			4.		
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name Justin Lee				Signature <i>Justin Lee</i>				Month Day Year 12 1 08			

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPIC SUMMARY

For Manifest # 0825-03-0001

EnergySolutions, Clive Disposal Site

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
AG-110M	4.0703E-01	1.1001E-02	1.1001E-05	.0000E+00	.0000E+00
C-14	1.4201E-03	3.8380E-05	3.8380E-08	.0000E+00	.0000E+00
CE-144	3.4410E-05	9.3000E-07	9.3000E-10	.0000E+00	.0000E+00
CO-57	2.0831E-05	5.6300E-07	5.6300E-10	.0000E+00	.0000E+00
CO-58	6.0680E-03	1.6400E-04	1.6400E-07	.0000E+00	.0000E+00
CO-60	3.8971E+00	1.0803E-01	1.0803E-04	.0000E+00	.0000E+00
CR-51	9.9167E-02	2.6802E-03	2.6802E-06	.0000E+00	.0000E+00
CS-134	3.3493E-01	9.0523E-03	9.0523E-06	.0000E+00	.0000E+00
CS-137	8.2548E-01	2.2310E-02	2.2310E-05	.0000E+00	.0000E+00
FE-55	3.1892E+00	8.6466E-02	8.6466E-05	.0000E+00	.0000E+00
FE-59	4.8840E-05	1.3200E-06	1.3200E-09	.0000E+00	.0000E+00
H-3	4.2010E-03	1.1354E-04	1.1354E-07	.0000E+00	.0000E+00
I-129	5.1730E-04	1.3981E-05	1.3981E-08	.0000E+00	.0000E+00
MN-54	4.3299E-01	1.1702E-02	1.1702E-05	.0000E+00	.0000E+00
NB-95	1.2728E-03	3.4400E-05	3.4400E-08	.0000E+00	.0000E+00
NI-63	6.1204E-02	2.1947E-03	2.1947E-06	.0000E+00	.0000E+00
SB-124	1.5022E-05	4.0600E-07	4.0600E-10	.0000E+00	.0000E+00
SB-125	1.8537E-04	5.0100E-06	5.0100E-09	.0000E+00	.0000E+00
SN-113	5.5130E-05	1.4900E-06	1.4900E-09	.0000E+00	.0000E+00
TC-99	9.4128E-04	2.5440E-05	2.5440E-08	.0000E+00	.0000E+00
ZN-65	3.5890E-01	9.7000E-03	9.7000E-06	.0000E+00	.0000E+00
ZR-95	9.8790E-04	2.6700E-05	2.6700E-08	.0000E+00	.0000E+00
Totals:	9.7518E+00	2.6356E-01	2.6356E-04	.0000E+00	.0000E+00

CERTIFICATE OF DISPOSAL

3 mi. S. Ext. 49, I-80 Clive, Utah
84029 EPA ID: UT982598898

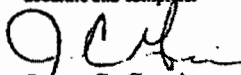
Tennessee Valley Authority, Muscle Shoals

This Certificate acknowledges that the following manifested shipments:

<u>Shipment</u>	<u>Manifest</u>	<u>Date(s) of Disposal</u>	<u>Cu/Ft</u>	<u>Process</u>	<u>Disposal Location</u>
0825-03-0001	15092	3/7/2008	8.18	Landfill	Mixed Waste

Representing 8.18 Cubic feet of waste disposed of at EnergySolutions' above listed Disposal Facility landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.



Jesse C. Garcia
Mixed Waste Site Manager

3/18/08
Date

423 West 300 South, Salt Lake City, Utah 84101 Telephone (801) 649-2000

Attachment 3

Waste Manifest Numbers 0825-04-0001

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
0825-04-0001	003715093JJK	2	1/28/2008	Energy Solutions Clive Disposal Site Clive, UT	2/1/2008

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Privacy Services Branch (T-3 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0091, or by internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NRC-10202, (301-814-6144), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		EnergySolutions, Clive Disposal Site		SHIPPER - NAME AND FACILITY		SHIPMENT ID NUMBER		7. FORM 540 AND 540A FORM 541 AND 541A FORM 542 AND 542A ADDITIONAL INFORMATION		PAGE 1 OF 1 PAGE(S) 2 PAGE(S) 1 PAGE(S) 1 PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages)	
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (802) 220-1555		UTAH DISPOSAL PERMIT NUMBER 0711 004 980		SHIPMENT NUMBER 0625-04-0001		COLLECTOR		PROCESSOR		9. CONSIGNEE - Name and Facility Address		CONTACT	
ORGANIZATION Durstak Inc.		CONTACT B. Bernauer		TELEPHONE NUMBER (Include Area Code) (256) 314-7870		EPA I.D. NUMBER TND-99-778-3065		SHIPPING DATE 01/29/2008		EnergySolutions, Clive Disposal Site Operated By EnergySolutions Tooele County, US I-80 Exit 49 Clive, UT 84029		Treatment Facility TELEPHONE NUMBER (Include Area Code) 435-884-0155	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 2		6. CARRIER - Name and Address Hitman Transport Services 1560 Bear Creek Road Oak Ridge, TN 37630		Truck #: 599 Trailer #: W45817		TELEPHONE NUMBER (Include Area Code) 800-233-9933		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Quels de</i>		DATE 2/1/08	
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes", provide Manifest Number		EPA MANIFEST NUMBER 003715083.JJK		CONTACT Karen Kirby		SIGNATURE - Authorized carrier acknowledging waste receipt <i>Ende Roberts 48934</i>		DATE 1-28-08		AUTHORIZED SIGNATURE <i>DWJW</i>		TITLE Certified Broker	
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS	
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S.(D001), 3; III LIQUID 1 - 55 GALLON DRUM		NA		NA		LIQUID/METAL OXIDES		C-14 ; CE-144 ; CM-243 ; CO-60 ; CS-137 ; FE-55 ; H-3 ; I-129 ; NH-63 ; PU-238 ; SR-90 ; TC-99		3.6644E-01 (9.9039E-03)		NA	
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S.(D001), (LIMITED QUANTITY RADIOACTIVE MATERIAL), 3; III LIQUID 1 - 110 GAL. DRUM		NA		NA		LIQUID/METAL OXIDES		C-14 ; CM-243 ; CO-60 ; CS-137 ; FE-55 ; H-3 ; I-129 ; NH-63 ; PU-238 ; SR-90 ; TC-99		3.1454E+00 (8.5010E-02)		NA	
18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE											
7.50 R ³		08-000011 (981444)											
15.00 R ³		08-000012 (981445)											
FOR CONSIGNEE USE ONLY				<ul style="list-style-type: none"> <input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Violations Detected on this Shipment 				<p>20. TERMS AND CONDITIONS:</p> <p>A. HAZARDOUS MATERIALS: Generator represents and warrants that Waste Material is (or) is not hazardous waste as defined in 40 CFR 261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and complete hazardous waste manifest, along with the appropriate land-disposal restriction notice under certification as required by 40 CFR 268.1.</p> <p>B. TITLE: Upon acceptance of the disposal site by EnergySolutions, Inc. and all appropriate regulatory authorities, title to the Waste Material which conforms to Department's representations herein shall pass upon transfer from Generator and be vested in EnergySolutions, Inc.</p> <p>C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, and regulations and directives of Utah, Inc.'s facility license.</p> <p>D. INDEMNIFICATION: Generator agrees to indemnify EnergySolutions, Inc., its officers, employees, and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data supplied on the UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST, or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.</p>					

Estimated burden per response to comply with this information collection request: 1.5 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (F-4 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEIS-1026, (2025-0166), Office of Management and Budget, Washington, DC 20503. If a manifest used to improve an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541		EnergySolutions, Clive Disposal Site		1. MANIFEST TOTALS							2. MANIFEST NUMBER					
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION				NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams)				TOTAL	0025-04-0001				
							U-233	U-235	Pu							
				2	m ³ ft ³	0.83714 kg 22.50000 lb	241.00000 0.26589	NP	NP	2.3025G-12 g (2 pkg.)	2.3025E-12 g (2 pkg.)					
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste				ACTIVITY (Bq/mCi) (LLS UNITS IN cCur)							3. PAGE 1 OF 2 PAGE(S)					
				ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	4. SHIPPER NAME						
				MBq		3.5116E+001	8.489E-08	6.027E-08	1.332E-04	5.043E-08	TVA Hazardous Waste Storage Facility/CO Em					
				mCi		8.4914E-02	2.289E-08	1.529E-08	4.941E-05	1.353E-08	5. SUPPLEMENT ID NUMBER					
										0025-04-0001						
DISPOSAL CONTAINER DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION AS - Class A AU - Class A Unstable B - Class B C - Class C		
A. CONTAINER IDENTIFICATION NUMBER	B. CONTAINER DESCRIPTION (See Note 1 & 1A)	C. VOLUME m ³ ft ³	D. WASTE AND CONTAINER WEIGHT kg lb	E. SURFACE RADIATION LEVEL mSv/hr mrem/hr	F. SURFACE CONTAMINATION Bq/100 cm ² Ci/100 cm ²		G. PHYSICAL DESCRIPTION			H. CHEMICAL DESCRIPTION		I. RADIOLOGICAL DESCRIPTION				
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2 & 2A)	12. APPROXIMATE WASTE VOLUMES IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT (# > 0.1%)	16. INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
											RADIONUCLIDES					
8 - Interpack Container											C-14	1.0497E-03	6.250E-08	1.890E-07	AU	
09-000011 (981444)											CS-144	3.3727E-03	2.0091E-08	5.430E-07		
Origin: AL											CM-243	2.2897E-04	1.3618E-08	3.680E-08		
TVA Hazardous Waste Storage Facility											CO-60	3.1481E-01	1.6736E-01	5.070E-03		
TVA Reservation Road/Highway 133N near Wilson Dam Muscle Shoals, AL 35881											CS-137	6.7080E+00	3.8886E-02	1.880E-03		
											FS-95	2.1925E-01	1.3081E-01	3.530E-03		
											H-3	1.4945E-03	8.8430E-08	2.380E-07		
											I-129	8.8919E-04	5.3910E-08	1.430E-07		
											N-63	1.3892E-02	6.1030E-03	2.180E-04		
											PL-238	2.0487E-04	1.2210E-08	3.800E-08		
													[1.9412E-12 g]			
											SR-90	2.0821E-02	1.2284E-04	3.330E-06		
											TC-99	2.8770E-03	1.8947E-03	4.310E-07		
											Sub Total	6.1515E-01	3.8944E-01	9.9038E-03		
													[1.9412E-12 g]			
Package Total											6.1515E-01	3.8944E-01	9.9038E-03			
													[1.9412E-12 g]			

Form 541 (10-98) * - Indicates Cross Contamination

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-6 FB2), U.S. Nuclear Regulatory Commission, Washington, DC 20585-0001, or by internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NRC-16222, (3130-0198), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION (CONTINUATION)										2. MANIFEST NUMBER 0823-04-0001		3. PAGE 2 OF 2 PAGE(S)				
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						15. WASTE CLASSIFICATION AS - Class A Subclass AU - Class A Unstable B - Class B C - Class C				
6. CONTAINER IDENTIFICATION NUMBER	7. CONTAINER DESCRIPTION (See Note 1 & 1A)	8. VOLUME m ³ or BT	9. WASTE AND CONTAINER WEIGHT kg and lbs	10. SURFACE RADIATION LEVEL mSv/hr or μR/hr	10. SURFACE CONTAMINATION MBq/100 cm ² or dpm/100 cm ²		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION			13. RADIOLOGICAL DESCRIPTION			
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ or BT	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM OR CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%		INDIVIDUAL RADIOISOTOPES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIOISOTOPE PERCENT			
										RADIOISOTOPES						
9. Inventory Container 08-00012 (081448) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Reactory 133H near Wilson Dam Muscle Shoals, AL 35861	(110 GAL DRUM) 4	0.42478	148.00000	0.008	< 0.00003874	< 0.00003874	1	0.42478	100	LICUID METAL OXIDES / NP	NP	C-14	1.820E-02	6.402E-05	1.402E-08	AU
		15.00000	0.18094	0.5	< 220	< 2200	25	15.00000				CM-243	8.800E-05	2.530E-07	8.940E-09	
												CO-60	6.100E-02	1.808E+00	4.860E-02	
												CS-137	2.818E+00	7.497E+00	2.010E-04	
												FE-55	4.237E+02	1.294E+00	3.900E-02	
												H-3	2.982E-02	7.580E-05	2.090E-08	
												I-129	1.525E-02	4.514E-05	1.220E-08	
												K-43	2.825E+01	7.770E-02	2.100E-03	
												PU-238	7.887E-05	2.278E-07	6.150E-09	
															(3.617E-13 g)	
												SR-90	7.727E-03	2.280E-05	6.180E-07	
												TC-99	4.837E-02	1.377E-04	3.710E-06	
												Sub Total	1.082E+03	3.145E+00	8.501E-02	
Package Total													1.082E+03	3.145E+00	8.501E-02	
															(3.617E-13 g)	
Shipment Total		0.63714	329.00000											3.5118E+00	9.4914E-02	
		22.90000	0.36288											(2.3028E-12 g)		

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by HRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (7-4 P52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10302, (2150-0146), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 542		EnergySolutions, Clive Disposal Site		1. WASTE COLLECTOR/PROCESSOR										2. MANIFEST NUMBER		
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST				NAME		SHIPPER USE ONLY								0625-04-0001		
MANIFEST INDEX AND REGIONAL COMPACT TABULATION				TVA Hazardous Waste Storage Facility/CO EnergySolutions										PAGE 1 OF 1 PAGE(S)		
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators				SHIPPING DATE										01/28/2006		
										AS PROCESSED/COLLECTED TOTAL						
5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME		8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE	10. ORIGINATING REGION OR STATE	11. A. SOURCE MATERIAL		B. SHM	C. ACTIVITY		D. VOLUME		E. WEIGHT	F. MAXIMUM PACKAGE RADIATION LEVEL
			m ³	kg				(kg)	(Bq)		mCi	m ³	Bq	(M)		
TVA Hazardous Waste Storage Facility (256) 314-7670	TVA Reservation Road/ Hwy 133N near Wilson Dam Muscle Shoals, AL 35861	Aqueous Liquid Combustible	0.63714	22.50000	On-site Generation: 01/28/2006	C	AL	NP	NP	2.3029E-12	3.9118E+00	6.4914E-02	0.63714	22.50000	531.31879	0.5
TOTALS OF ALL PAGES (FORMS 542 AND 542A)																
NP NP 2.3029E-12 3.9118E+00 6.4914E-02 0.63714 22.50000 531.31879 N/A																



UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL 2640090005	2. Page 1 of 1	3. Emergency Response Phone 865 220 1553		4. Manifest Tracking Number 003715093 JJK					
		5. Generator's Name and Mailing Address TVA HAZARDOUS WASTE STORAGE FACILITY <i>c/o Enviro Solutions</i> TVA Reservation Road Hwy 133N near Wilson Dam						Generator's Site Address (if different than mailing address)			
Generator's Phone: (256) 344 7876						Mobile Shoals AL 35661					
6. Transporter 1 Company Name Hittman Transport Services						U.S. EPA ID Number TND 987783065					
7. Transporter 2 Company Name						U.S. EPA ID Number					
8. Designated Facility Name and Site Address ENVIRO SOLUTIONS, CLIVE DISPOSAL SITE TOWLE COUNTY, US E-BOXKIT 49 CLIVE UT 84029						U.S. EPA ID Number UTL 982598898					
Facility's Phone: (435) 884-0155											
GENERATOR	9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes		
	X		1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (D001), 3, III		01 DM		161	K	D001	D007	D018
	X		2. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (D001) (LIMITED QUANTITY RADIOACTIVE MATERIAL), 3, III		01 DM		80	K	D001	D008	D022
			3.						D035	D039	D040
			4.								
14. Special Handling Instructions and Additional Information ERG-128 SHIPMENT # 0825-04-0001 Contract # 26316 - RD 2004530											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name DAVID W WIFFEN						Signature <i>DW Wiffen</i>		Month Day Year 01 28 08			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____											
17. Transporter Acknowledgment of Receipt of Materials											
Transporter 1 Printed/Typed Name ROBERT PROCTOR						Signature <i>Robert Proctor</i>		Month Day Year 1 28 08			
Transporter 2 Printed/Typed Name						Signature		Month Day Year			
18. Discrepancy											
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
Manifest Reference Number: _____											
18b. Alternate Facility (or Generator) U.S. EPA ID Number											
Facility's Phone: _____											
18c. Signature of Alternate Facility (or Generator) Month Day Year											
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H129			2. H129			3.		4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name Justin Lee						Signature <i>Justin Lee</i>		Month Day Year 2 1 08			

ISOTOPIC SUMMARY
For Manifest # 0825-04-0001
EnergySolutions, Clive Disposal Site

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
C-14	6.0273E-05	1.6290E-06	1.6290E-09	.0000E+00	.0000E+00
CE-144	2.0091E-05	5.4300E-07	5.4300E-10	.0000E+00	.0000E+00
CM-243	1.6147E-06	4.3640E-08	4.3640E-11	.0000E+00	.0000E+00
CO-60	1.9932E+00	5.3870E-02	5.3870E-05	.0000E+00	.0000E+00
CS-137	4.7397E-02	1.2810E-03	1.2810E-06	.0000E+00	.0000E+00
FE-55	1.3849E+00	3.7430E-02	3.7430E-05	.0000E+00	.0000E+00
H-3	8.4893E-05	2.2890E-06	2.2890E-09	.0000E+00	.0000E+00
I-129	5.0431E-05	1.3630E-06	1.3630E-09	.0000E+00	.0000E+00
NI-63	8.5803E-02	2.3190E-03	2.3190E-06	.0000E+00	.0000E+00
PU-238	1.4486E-06	3.9150E-08	3.9150E-11	2.3029E-12	.0000E+00
SR-90	1.4574E-04	3.9390E-06	3.9390E-09	.0000E+00	.0000E+00
TC-99	1.5322E-04	4.1410E-06	4.1410E-09	.0000E+00	.0000E+00
Totals:	3.5118E+00	9.4914E-02	9.4914E-05	2.3029E-12	.0000E+00



3 mi. S. Ext. 49, I-80
Clive, Utah 84029 EPA
ID: UT982598898

CERTIFICATE OF DISPOSAL

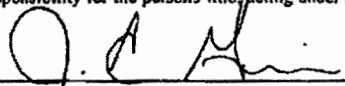
Rev. 0

This Certificate acknowledges that the following manifested shipment(s):

<u>Shipment</u>	<u>Manifest</u>	<u>Date(s) of Disposal</u>	<u>Cu/Ft</u>	<u>Process</u>	<u>Disposal Location</u>
0825-04-0001	15093	06/23/08	22.5	Landfill	Mixed Waste Cell

Representing 22.5 Cubic feet of waste of at listed Disposal Facility landfill. Disposal is subject to EnergySolutions Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement. This does not include the treatment byproduct secondary waste (condensate). Treatment byproduct secondary waste is awaiting incineration at a third party incinerator.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.



Jesse C. Garcia
Director of Mixed Waste Operations

7/21/08
Date

Attachment 4

Waste Manifest Numbers 0825-02-0002

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
0825-02-0002	003715091JJK	7	1/28/2008	Energy Solutions Clive Disposal Site Clive, UT	2/1/2008

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Policy Advisory Services Branch (7-5 FED), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, HEOS-16382, (202-914-4144), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		EnergySolutions, Clive Disposal Site		SHIPPER - NAME AND FACILITY		SHIPMENT ID NUMBER		7. FORM 540 AND 540A PAGE 1 OF 2 PAGE(S) FORM 541 AND 541A PAGE(S) FORM 542 AND 542A PAGE(S) ADDITIONAL INFORMATION PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages)							
1. EMERGENCY TELEPHONE NUMBER (include Area Code) (866) 220-1555		UTAH DISPOSAL PERMIT NUMBER 0711 004 980		TVA Hazardous Waste Storage Facility C/O EnergySolutions TVA Reservation Road/Highway 153M near Wilson Dam Muscle Shoals, AL 36661		0625-02-0002				0625-02-0002							
ORGANIZATION Duratek Inc.		CONTACT B. Bernauer		SHIPMENT NUMBER 0625-02-0002		COLLECTOR		PROCESSOR		CONTACT Treatment Facility							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 7		8. CARRIER - Name and Address Hibman Transport Services 1560 Bear Creek Road Oak Ridge, TN 37830		Truck #: 699 Trailer #: W46817		X GENERATOR TYPE (Specify) <input type="checkbox"/> O		EnergySolutions, Clive Disposal Site M10360 Operated By EnergySolutions Tooele County, US I-80 Exit 49 Clive, UT 84029							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes", provide Manifest Number		EPA MANIFEST NUMBER 003715091 JJK		CONTACT Karen Kirby		EPA I.D. NUMBER TND-98-776-3085		TELEPHONE NUMBER (include Area Code) (208) 314-7870		TELEPHONE NUMBER (include Area Code) 435-884-0165							
				SIGNATURE - Authorized carrier acknowledging waste receipt E. S. Hunter #48937		SHIPPING DATE 01/28/2008		DATE 1-28-08		DATE 2/1/08							
				SIGNATURE - Authorized consignee acknowledging waste receipt D.W. Baker		DATE 01/28/08		DATE 01/28/08		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D008), 9; III DAW 1 - 55 GALLON DRUM		NA		NA		SOLID/METAL OXIDES		C-14; CE-144; CM-242; CM-243; CM-244; CO-60; CS-137; FE-55; H-3; I-129; NI-63; SR-90; TC-99; U-235		1.4873E-02 (4.0198E-04)		NA		7.50 m ³		08-000002 (1001484)	
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D008,D007,D008), 9; III DAW 1 - 55 GALLON DRUM		NA		NA		SOLID/METAL OXIDES		AG-110M; C-14; CO-60; CO-58; CO-60; CR-51; CS-134; CS-137; FE-55; FE-59; H-3; I-129; MN-54; NB-95; NI-63; SB-125; SN-113; TC-99; ZN-65; ZR-95		9.8109E-02 (2.6518E-03)		NA		7.50 m ³		08-000003 (1004276)	
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D008,D007,D008), 9; III DAW 1 - 55 GALLON DRUM		NA		NA		SOLID/METAL OXIDES		C-14; CR-51; CS-137; H-3; MN-54; NI-63; SB-125; ZN-65		3.1678E-02 (8.5346E-04)		NA		7.50 m ³		08-000004 (1004277)	
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D008,D007,D008), 9; III DAW 1 - 55 GALLON DRUM		NA		NA		SOLID/METAL OXIDES		CO-57; CR-51; FE-59; MN-54; SB-125		6.9312E-03 (1.8733E-04)		NA		7.50 m ³		08-000005 (1004278)	
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D008), 9; III DAW 1 - 55 GALLON DRUM		NA		NA		SOLID/METAL OXIDES		AG-110M; AM-241; C-14; CM-243; CM-244; CS-134; CS-137; FE-55; H-3; MN-54; PU-238; PU-239; PU-240; PU-241; SR-90		4.7170E-02 (1.2749E-03)		NA		7.50 m ³		08-000006 (1005224)	
FOR CONSIGNEE USE ONLY		<ul style="list-style-type: none"> <input type="checkbox"/> Record Waste Description Inadequate <input type="checkbox"/> Contamination or Leakage Detected <input type="checkbox"/> Unexpected Exposure Rates Detected <input type="checkbox"/> Labels, Markings, etc. Inadequate <input type="checkbox"/> Container Integrity Inadequate <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Violations Detected on this Shipment 		3A. TERMS AND CONDITIONS A. HAZARDOUS MATERIALS: Generator represents & warrants that Waste Material is (or is not hazardous waste as defined in 49 CFR 241. Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate manifest routing notice and/or certification as required by 49 CFR 241.1. B. TITLE: User assumes all the disposal site by EnergySolutions, Inc. and all appropriate regulatory authorities. Title to the Waste Material which conforms to Generator's representations herein shall thereafter transfer from Generator and be vested in EnergySolutions, Inc. C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST are true and correct in all respects and is in accordance with all applicable governmental laws, rules, and regulations and Consensus of Use, Inc.'s Facility Records. D. IDENTIFICATION: Generator agrees to indemnify EnergySolutions, Inc. its officers, employees, and agents against all losses and liability whatsoever if such losses or liability results from the failure of the Waste Material to conform in all material respects to the data specified on this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST, or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.													

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (7-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollecta@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NECEB-10202, (3150-0184), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540A		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER (CONTINUATION)							EnergySolutions, Clive Disposal Site		8. MANIFEST NUMBER (Use this number on all continuation pages) 0825-02-0002	
PAGE 2 OF 2 PAGE(S)												
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE			
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D007,D008), 9; III DAW 1 - 55 GALLON DRUM	NA	NA	SOLID/METAL OXIDES	CR-51 ; SB-125	8.1844E-03	(2.2120E-04)	NA	7.50 R ³	08-000007 (1005664)			
NA3077, HAZARDOUS WASTE, SOLID, N.O.S.(D007,D008), 9; III DAW 1 - 55 GALLON DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CO-57 ; CO-58 ; CO-60 ; CR-51 ; CS-134 ; CS-137 ; FE-55 ; FE-59 ; H-3 ; MN-54 ; SB-125	9.6470E-02	(2.6073E-03)	NA	7.50 R ³	08-000008 (1005665)			

Estimated burden per response to comply with this information collection request: 2.5 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Privacy Services Branch (7-8 P2), U.S. Nuclear Regulatory Commission, Washington, DC 20549-0091, or by Internet e-mail to infoburden@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NIOSH-1990, (202) 456-6060, Office of Management and Budget, Washington, DC 20503. If a measure used to improve an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541 EnergySolutions, Drive Disposal Site	UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION	Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste	1. MANIFEST TOTALS											2. MANIFEST NUMBER 0025-02-0002		
			NUMBER OF PACKAGES/ DISPOSAL CONTAINERS: 7	NET WASTE VOLUME: 1.4890 kg / 32.8090 ton	NET WASTE WEIGHT: 481.0000 / 0.5302	SPECIAL NUCLEAR MATERIAL (grams)				TOTAL: 9.8000E-03 g (2 pkg.)	ACTIVITY (MBq/mCi) (LLD (B175) in uCi/g)		SOURCE			
			U-233	U-235	Plu											
			U-233	U-235	Plu								4. SHIPPER NAME TVA Hazardous Waste Storage Facility/C/O Ent			
			ALL NUCLEIDES	TOTAL	C-14	To-99	3-129							SHIPMENT ID NUMBER 0025-02-0002		
			MBq	3.0532E-01	1.0314E-02	1.1195E-03	7.2195E-04	4.1074E-04	NP							
			mCi	8.1977E-05	2.7876E-04	3.0178E-05	1.9022E-05	1.1101E-05	NP							
WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER																
DISPOSAL CONTAINER DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION				
1. CONTAINER IDENTIFICATION NUMBER	2. CONTAINER DESCRIPTION (See Note 1 & 1A)	3. VOLUME (m³ / ft³)	4. WASTE AND CONTAINER WEIGHT (kg / ton)	5. SURFACE RADIATION LEVEL (mSv/hr / mR/hr)	6. SURFACE CONTAMINATION (Bq/cm² / dpm/100 cm²)		7. WASTE DESCRIPTION (See Note 2 & Note 2A)	8. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m³ / ft³)	9. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	10. CHEMICAL FORM/ CHELATING AGENT	11. WEIGHT % CHELATING AGENT (F > 0.1%)	12. RADIOLOGICAL DESCRIPTION				13. Waste Classification (See Note 14)
					ALPHA	BETA-GAMMA						RADIONUCLIDES	pCi/g	MBq	uCi	
08-000002 (1001494) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35661	4	0.21236	87.00000	0.009	< 0.00003674	< 0.00003674	H 40	0.21236	100	SOLID METAL OXIDES / NP	NP	C-14	1.8194E-05	4.3800E-08	1.8000E-09	AU
		7.50000	0.09900	0.5	< 220	< 2200		7.50000				CE-144	1.5538E-02	3.7370E-05	1.0100E-05	
												CM-242	2.9077E-05	6.9600E-09	1.8600E-09	
												CM-243	2.4306E-05	5.8480E-09	1.5800E-09	
												CM-244	2.4306E-05	5.8480E-09	1.5800E-09	
												CO-60	6.8230E-01	1.4240E-03	3.8600E-05	
												CS-137	6.1846E-01	1.2489E-03	3.3700E-05	
												FE-56	4.7384E+00	1.1389E-02	3.0800E-04	
												H-3	8.4819E-05	2.0380E-07	6.8000E-09	
												I-129	1.8823E-06	4.0700E-08	1.1000E-09	
												NI-63	1.0881E-02	2.8122E-05	7.6800E-07	
												SR-90	7.8825E-04	1.8188E-06	5.1800E-08	
												TC-99	2.3848E-05	6.2180E-09	1.8600E-09	
												U-235	3.0768E-01	7.4000E-04	2.0000E-05	
												Sub Total	6.1843E+00	1.4873E-02	4.0198E-04	
												Package Total	6.1843E+00	1.4873E-02	4.0198E-04	
NOTE 1: Container Description Codes. For containers which require special handling or disposal in approved structural supports, the numerical code must be followed by "OP."				NOTE 1A: Bulk Packaging Description Codes (Choose one code to apply to each container)				NOTE 2: Waste Descriptor Codes. (Choose up to three which pertain to the waste.)				NOTE 2A: Specific Waste Descriptors (Choose all applicable codes.)		NOTE 2B: Solidification and Stabilization Media Codes. (Choose up to three which pertain to the waste.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "S" and the media vendor and batch name must also be identified in Item 13. Code (B-V) is Required		
1. Wooden Box or Crate	2. Metal Box	3. Plastic Drum or Pail	4. Metal Drum or Pail	5. Metal Tank or Cask	6. Composite Tank or Cask	7. Polyethylene Tank or Liner	8. Fiberglass Tank or Liner	9. Drum	10. Steel Drum	11. High Integrity Container	12. Other, Describe in Item 8, or additional page	13. Other, Describe in Item 8, or additional page	14. Other, Describe in Item 8, or additional page	15. Other, Describe in Item 8, or additional page	16. Other, Describe in Item 8, or additional page	
17. Other, Describe in Item 8, or additional page	18. Other, Describe in Item 8, or additional page	19. Other, Describe in Item 8, or additional page	20. Other, Describe in Item 8, or additional page	21. Other, Describe in Item 8, or additional page	22. Other, Describe in Item 8, or additional page	23. Other, Describe in Item 8, or additional page	24. Other, Describe in Item 8, or additional page	25. Other, Describe in Item 8, or additional page	26. Other, Describe in Item 8, or additional page	27. Other, Describe in Item 8, or additional page	28. Other, Describe in Item 8, or additional page	29. Other, Describe in Item 8, or additional page	30. Other, Describe in Item 8, or additional page	31. Other, Describe in Item 8, or additional page		
32. Other, Describe in Item 8, or additional page	33. Other, Describe in Item 8, or additional page	34. Other, Describe in Item 8, or additional page	35. Other, Describe in Item 8, or additional page	36. Other, Describe in Item 8, or additional page	37. Other, Describe in Item 8, or additional page	38. Other, Describe in Item 8, or additional page	39. Other, Describe in Item 8, or additional page	40. Other, Describe in Item 8, or additional page	41. Other, Describe in Item 8, or additional page	42. Other, Describe in Item 8, or additional page	43. Other, Describe in Item 8, or additional page	44. Other, Describe in Item 8, or additional page	45. Other, Describe in Item 8, or additional page	46. Other, Describe in Item 8, or additional page		

Form 541 (10-96)

* - Indicates Cross Contamination

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (T-5 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEGB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541A	UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST											EnergySolutions, Clive Disposal Site		2. MANIFEST NUMBER 0825-02-0002							
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)																					
DISPOSAL CONTAINER DESCRIPTION											WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
6. CONTAINER IDENTIFICATION NUMBER	7. CONTAINER DESCRIPTION (See Note 1 & 1A)	8. VOLUME m ³ ft ³	9. WASTE AND CONTAINER WEIGHT kg ton	10. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10a. SURFACE CONTAMINATION		11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				16. WASTE CLASSIFICATION AA - Class A Stable AU - Class A Unstable B - Class B C - Class C					
					ALPHA MBq/100 cm ² dpm/100 cm ²	BETA-GAMMA				CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT									
06-00003 (1004278) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35661	4	0.21238	100.00000	0.005	< 0.00003874	< 0.00003874	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	AG-110M	1.1410E-01	3.2930E-04	8.9000E-06	AU					
		7.50000	0.11023	0.5	< 220	< 2200		7.50000				C-14	1.1397E-01	3.2893E-04	8.8900E-06						
												CO-57	4.0641E-02	1.1729E-04	3.1700E-05						
												CO-58	7.2820E+00	2.1016E-02	5.6800E-04						
												CO-60	3.0128E+00	8.8950E-03	2.3500E-04						
												CR-51	1.2103E+00	3.4828E-03	9.4400E-05						
												CS-134	1.5786E-01	4.5510E-04	1.2300E-05						
												CS-137	7.2882E-01	2.0979E-03	5.6700E-05						
												FE-55	1.2949E-01	3.7370E-02	1.0100E-03						
												FE-59	1.0744E-01	3.1008E-04	8.3800E-06						
												H-3	1.0603E+00	3.0599E-03	8.2700E-05						
												I-129	1.4231E-01	4.1070E-04	1.1100E-05						
												MN-54	5.4359E-01	1.5888E-03	4.2400E-05						
												NB-95	1.2205E-01	3.5224E-04	9.5200E-06						
												NB-83	5.7438E+00	1.6578E-02	4.4800E-04						
												SB-125	1.9231E-01	5.5900E-04	1.5000E-05						
												SN-113	4.7584E-02	1.3727E-04	3.7100E-06						
												TC-99	2.5000E-01	7.2150E-04	1.9500E-05						
												ZN-65	1.0258E-01	2.9800E-04	8.0000E-06						
												ZR-95	7.5897E-02	2.1804E-04	5.9200E-06						
Package Total												Sub Total	3.3895E+01	9.8109E-02	2.6516E-03						
													3.3895E+01	9.8109E-02	2.6516E-03						
08-00004 (1004277) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35661	4	0.21238	100.00000	0.005	< 0.00003874	< 0.00003874	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	C-14	1.1609E-01	3.7370E-04	1.0100E-05	AU					
		7.50000	0.12019	0.5	< 220	< 2200		7.50000				CR-51	1.2299E+00	3.5980E-03	1.0700E-04						
												CS-137	7.1494E-01	2.3014E-03	6.2200E-05						
												H-3	1.0747E+00	3.4989E-03	9.3900E-05						
												MN-54	5.5287E-01	1.7797E-03	4.8100E-05						
												NI-63	5.8278E+00	1.6799E-02	5.0700E-04						
												SB-125	1.8985E-01	6.1050E-04	1.6500E-05						
												ZN-65	1.0414E-01	3.3522E-04	9.0800E-06						
Package Total												Sub Total	9.8098E+00	3.1578E-02	8.5346E-04						
													9.8098E+00	3.1578E-02	8.5346E-04						

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10202, (3158-0186), Office of Management and Budget, Washington, DC 20503. If a measure used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										EnergySolutions, Clive Disposal Site		2. MANIFEST NUMBER 0825-02-0002					
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)										3. PAGE 3 OF 4 PAGE(S)							
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C			
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1 & 1A)	7. VOLUME m ³ (l)	8. WASTE AND CONTAINER WEIGHT kg (lb)	9. SURFACE RADIATION LEVEL mSv/hr (mrem/hr)	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION CHEMICAL FORM / CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT					
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ (l)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)			RADIONUCLIDES	pCi/gg		MBq	mCi	
08-000005 (1004278) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservoir Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35661	4	0.21238	104.00000	0.005	< 0.00003674	< 0.00003674	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	CO-57 CR-51 FE-59 MN-54 SB-125 Sub Total	4.4268E-02 1.3171E+00 1.1707E-01 5.9268E-01 2.1341E-01 2.2845E+00	1.3431E-04 3.9680E-03 3.5920E-04 1.7082E-03 6.4750E-04 6.9312E-03	3.6300E-06 1.0800E-04 9.8000E-06 4.8000E-05 1.7500E-05 1.6733E-04	AU	
Package Total																	
08-000008 (1005224) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservoir Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35661	4	0.21238	54.00000	0.005	< 0.00003674	< 0.00003674	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	AG-110M AM-241 C-14 CM-243 CM-244 CS-134 CS-137 FE-55 H-3 MN-54 PU-238 PU-239 PU-240 PU-241 SR-90 Sub Total	6.1875E-01 4.4375E-02 5.8437E-03 9.1250E-03 9.1250E-03 3.5937E+00 1.3250E+01 1.4562E+01 1.7312E-02 6.4887E+00 4.0625E-02 1.0989E-02 1.0989E-02 6.7187E-01 1.2531E-01 3.9839E+01	9.6940E-04 3.2540E-05 6.9190E-06 1.0604E-05 1.0604E-05 4.2550E-03 1.5688E-02 1.7242E-02 2.0488E-05 7.6580E-03 4.8100E-05 1.2987E-05 1.2987E-05 1.0323E-03 2.7900E-10 1.4637E-04 4.7170E-02 7.5428E-09 g	2.6200E-05 1.4200E-06 1.6700E-07 2.9200E-07 2.9200E-07 1.1500E-04 4.2400E-04 4.8600E-04 5.5400E-07 2.0700E-04 1.3000E-06 3.5100E-07 3.5100E-07 2.7900E-05 4.0100E-06 1.2749E-03 1.2749E-03	AU	
Package Total																	

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 P32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollecta@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, MEOB-10202, (3150-0168), Office of Management and Budget, Washington, DC 20503. If a release used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										EnergySolutions, Clive Disposal Site		2. MANIFEST NUMBER 0825-02-0002				
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)												3. PAGE 4 OF 4 PAGE(S)				
DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										18. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C	
5. CONTAINER IDENTIFICATION NUMBER	6. CONTAINER DESCRIPTION (See Note 1 & 1A)	7. VOLUME m ³ / R ³	8. WASTE AND CONTAINER WEIGHT kg / ton	9. SURFACE RADIATION LEVEL mSv/hr / microrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² / dpm/100 cm ²		11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ / R ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				
					ALPHA	BETA-GAMMA				CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
												RADIONUCLIDES	pCi/gm	MBq	mCi	
08-000007 (1005664) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35881 Package Total	4	0.21238	138.00000	0.005	< 0.000003674	< 0.00003674	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	CR-51	1.4123E+00	5.9570E-03	1.8100E-04	AU
		7.50000	0.14982	0.5	< 220	< 2200	7.50000					SB-125	5.2807E-01	2.2274E-03	6.0200E-05	
		Sub Total		1.9403E+00	8.1844E-03	2.2120E-04										
08-000008 (1005665) Origin: AL TVA Hazardous Waste Storage Facility TVA Reservation Road/Hwy 133N near Wilson Dam Muscle Shoals, AL 35881 Package Total	4	0.21238	45.00000	0.005	< 0.000003674	< 0.00003674	H 40	0.21238	100	SOLID METAL OXIDES / NP	NP	C-14	4.7828E-01	4.0700E-04	1.1000E-05	AU
		7.50000	0.04880	0.5	< 220	< 2200	7.50000					CO-57	2.0478E-01	1.7427E-04	4.7100E-08	
		Sub Total		1.1336E+02	9.8470E-02	2.6073E-03										
Shipment Total		1.48886	835.00000										3.0332E-01	8.1977E-03		
		52.50000	0.69997										(8.0909E-03 g)			

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 FS2), U.S. Nuclear Regulatory Commission, Washington, DC 20565-0001, or by internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-18202, (3150-0185), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 542		EnergySolutions, Clive Disposal Site 1		1. WASTE COLLECTOR/PROCESSOR						2. MANIFEST NUMBER						
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST				NAME		SHIPPER USE ONLY				0825-02-0002						
MANIFEST INDEX AND REGIONAL COMPACT TABULATION				TVA Hazardous Waste Storage Facility		C/O EnergySolutions				3. PAGE 1 OF 1 PAGE(S)						
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators				SHIPPING DATE		01/28/2008										
											AS PROCESSED/COLLECTED TOTAL					
5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NOMENCLATURE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME		8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE	10. ORIGINATING COMPACT REGION OR STATE	11. A. SOURCE MATERIAL		B. SNM	C. ACTIVITY		D. VOLUME		E. WEIGHT	F. MAXIMUM PACKAGE RADIATION LEVEL
			m ³	l ³				(kg)	(lb)		(g)	MBq	mCi	m ³		
TVA Hazardous Waste Storage Facility	TVA Remediation Road/Highway 133N near Wilson Dam Muscle Shoals, AL 35891	Solid	1.48668	52.50000	Onsite Generation 01/28/2008	C	AL	NP	NP	9.0909E-03	3.8332E-01	8.1977E-03	1.48668	52.50000	1060.42896	0.5
TOTALS OF ALL PAGES (FORMS 542 AND 542A)								NP	NP	9.0909E-03	3.8332E-01	8.1977E-03	1.48668	52.50000	1060.42896	N/A

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL 2640090005	2. Page 1 of 1	3. Emergency Response Phone 865 220 1555	4. Manifest Tracking Number 003715091 JJK			
5. Generator's Name and Mailing Address TVA Hazardous Waste Storage Facility 210 Energy Solutions TVA Reservation Road Hwy 133N near Wilson Dam		Generator's Site Address (if different than mailing address)						
Generator's Phone: (256) 314-7876		Muscle Shoals AL 35661						
6. Transporter 1 Company Name Hittman Transport Services				U.S. EPA ID Number TND 98 7783065				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address Energy Solutions, Clive Disposal Site TOOOLE COUNTY, US E-80 EXIT 44 CLIVE UT 84029				U.S. EPA ID Number UTD 982598698				
Facility's Phone: (435) 884-0155								
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. NA3077, HAZARDOUS WASTE, SOLID, U.O.S. (D008), 9, III	02	DM	97	K	D008		
X	2. NA3077, HAZARDOUS WASTE, SOLID, U.O.S (D006, D007, D008), 9, III	03	DM	247	K	D006	D007	D008
X	3. NA3077, HAZARDOUS WASTE, SOLID, U.O.S (D007, D008), 9, III	02	DM	137	K	D007	D008	
	4.							
14. Special Handling Instructions and Additional Information ERG-171 ERG-171 SHIPMENT # 0825-02-0002 Contract # 26316-RD 2004530								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offeror's Printed/Typed Name DAVID W WIFFEN				Signature DWW		Month Day Year 10 28 08		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name Ernest PACTON				Signature Ernest PACTON		Month Day Year 1 28 08		
Transporter 2 Printed/Typed Name				Signature		Month Day Year		
18. Discrepancy								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number: _____ U.S. EPA ID Number _____								
18b. Alternate Facility (or Generator) Facility's Phone: _____								
18c. Signature of Alternate Facility (or Generator)						Month Day Year		
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H129		2. H129		3. H129		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name Justin Lee				Signature Justin Lee		Month Day Year 12 1 08		

**UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPIC SUMMARY**

For Manifest # 0828-02-0002
EnergySolutions, Clive Disposal Site

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
AG-110M	1.2987E-03	3.5100E-05	3.5100E-08	.0000E+00	.0000E+00
AM-241	6.2540E-05	1.4200E-06	1.4200E-09	.0000E+00	.0000E+00
C-14	1.1188E-03	3.0178E-05	3.0178E-08	.0000E+00	.0000E+00
CE-144	3.7370E-05	1.0100E-06	1.0100E-09	.0000E+00	.0000E+00
CM-242	6.9830E-08	1.8900E-08	1.8900E-12	.0000E+00	.0000E+00
CM-243	1.0862E-05	2.9358E-07	2.9358E-10	.0000E+00	.0000E+00
CM-244	1.0462E-05	2.9358E-07	2.9358E-10	.0000E+00	.0000E+00
CO-57	4.2587E-04	1.1510E-05	1.1510E-08	.0000E+00	.0000E+00
CO-58	2.5715E-02	6.9500E-04	6.9500E-07	.0000E+00	.0000E+00
CO-60	2.2848E-02	6.1750E-04	6.1750E-07	.0000E+00	.0000E+00
CR-51	2.3362E-02	6.3140E-04	6.3140E-07	.0000E+00	.0000E+00
CS-134	8.5453E-03	1.7690E-04	1.7690E-07	.0000E+00	.0000E+00
CS-137	2.9686E-02	8.0260E-04	8.0260E-07	.0000E+00	.0000E+00
FE-55	1.2114E-01	3.2740E-03	3.2740E-06	.0000E+00	.0000E+00
FE-59	1.1648E-03	3.1480E-05	3.1480E-08	.0000E+00	.0000E+00
H-3	1.0314E-02	2.7878E-04	2.7878E-07	.0000E+00	.0000E+00
I-129	4.1074E-04	1.1101E-05	1.1101E-08	.0000E+00	.0000E+00
LN-54	1.3483E-02	3.6440E-04	3.6440E-07	.0000E+00	.0000E+00
NG-95	3.5224E-04	9.5200E-06	9.5200E-09	.0000E+00	.0000E+00
NI-63	3.5361E-02	9.6571E-04	9.6571E-07	.0000E+00	.0000E+00
PU-238	4.8100E-05	1.3000E-06	1.3000E-09	7.6471E-11	.0000E+00
PU-239	1.2967E-05	3.5100E-07	3.5100E-10	5.6613E-08	.0000E+00
PU-240	1.2987E-05	3.5100E-07	3.5100E-10	1.5261E-09	.0000E+00
PU-241	1.0323E-03	2.7900E-05	2.7900E-08	2.7900E-10	.0000E+00
SB-125	8.2678E-03	1.8940E-04	1.8940E-07	.0000E+00	.0000E+00
SN-113	1.3727E-04	3.7100E-06	3.7100E-09	.0000E+00	.0000E+00
SR-90	1.5029E-04	4.0618E-06	4.0618E-09	.0000E+00	.0000E+00
TC-99	7.2156E-04	1.9502E-05	1.9502E-08	.0000E+00	.0000E+00
U-235	7.4000E-04	2.0000E-05	2.0000E-08	8.0909E-03	.0000E+00
ZN-65	6.3122E-04	1.7060E-05	1.7060E-08	.0000E+00	.0000E+00
ZR-95	2.1804E-04	5.9200E-06	5.9200E-09	.0000E+00	.0000E+00
Totals:	3.0332E-01	8.1977E-03	8.1977E-06	9.0809E-03	.0000E+00

CERTIFICATE OF DISPOSAL

3 mi. S. Ext. 49, I-80 Clive, Utah
84029 EPA ID: UT982598898

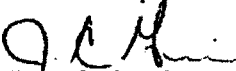
Tennessee Valley Authority, Muscle Shoals

This Certificate acknowledges that the following manifested shipments:

<u>Shipment</u>	<u>Manifest</u>	<u>Date(s) of Disposal</u>	<u>Cu/Ft</u>	<u>Process</u>	<u>Disposal Location</u>
0825-02-0002	15091	3/19/2008	52.5	Landfill	Mixed Waste

Representing 52.5 Cubic feet of waste disposed of at EnergySolutions' above listed Disposal Facility landfill. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identification section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate and complete.


Jesse C. Garcia
Mixed Waste Site Manager

4/2/08
Date

423 West 300 South, Salt Lake City, Utah 84101 Telephone (801) 649-2000

Attachment 5

Waste Manifest Numbers T074683


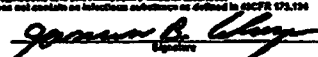
NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
T074683		3	11/16/2007	Energy Solutions Clive Disposal Site Clive, UT	11/21/2007

NOTE: The container numbers routinely used on the NRC Form 540 is the number assigned to the container by the Mixed Waste Storage Facility. In this case, the container numbers listed on the NRC Form 540 are the Generator assigned container numbers. The numbers correspond as listed below:

Generator Container No.	MWSF Container No.
DR04-081	1022766
DR02-077	1022767
DR04-072	1022768

As noted on NRC Form 540 Item 4 No EPA Manifest is required.

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and Privacy Services Branch (T-6 FS), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocoll@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, ME08-10302, (3195-0164), Office of Management and Budget, Washington, DC 20503. If a response is required to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540 EnergySolutions, Bear Creek Processing Operations UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY TVA-Power Service Center C/O Energy Solutions 127 Reservation Road Muscle Shoals, AL 35661		SHIPMENT ID NUMBER T074683 <input checked="" type="checkbox"/> COLLECTOR PROCESSOR		7. FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) FORM 541 AND 541A 1 PAGE(S) FORM 542 AND 542A 1 PAGE(S) ADDITIONAL INFORMATION 1 PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) T074683									
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (885) 220-1555		USER PERMIT NUMBER T074683		SHIPMENT NUMBER T074683		9. COMSIGNEE - Name and Facility Address EnergySolutions, Bear Creek Processing Operations Operated By EnergySolutions 1500 Bear Creek Road Oak Ridge, TN 37830		CONTACT Fred Solutz TELEPHONE NUMBER (Include Area Code) (885) 481-0222									
ORGANIZATION Energy Solutions Attn: Emergency Duty Officer		CONTACT Paul Bernauer		TELEPHONE NUMBER (Include Area Code) (256) 314-7870		SIGNATURE - Authorized consignee acknowledging waste receipt 		DATE 11/21/07									
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 3		6. CARRIER - Name and Address Energy Solutions, operated by Hitman 626 Galbraith Road Kingston, TN 37765-9888		TRUCK #: 5437 TRAILER #: 730988		EPA I.D. NUMBER TND 067763065 SHIPPING DATE 11/16/2007									
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "Yes", provide Manifest Number		EPA MANIFEST NUMBER N/A		CONTACT Karen Kirby		TELEPHONE NUMBER (Include Area Code) 585-376-6100		10. CERTIFICATION This is to certify that the herein-stated materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulation.									
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY MBq : mCi		17. LSA/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
Non-Radioactive per DOT LIQUID 1 - METAL DRUM		NA		NA		LIQUID/METAL OXIDES		CS-137		4.2180E-04 : 1.1400E-05		NA		11.50 lb 271.00 lb		07-001581 (DR04-072)	
Non-Radioactive per DOT OIL 1 - METAL DRUM		NA		NA		LIQUID/METAL OXIDES		CO-60 ; CS-137		2.5404E-02 : 6.8860E-04		NA		11.50 lb 480.00 lb		07-001582 (DR02-77)	
Non-Radioactive per DOT OIL 1 - METAL DRUM		NA		NA		LIQUID/METAL OXIDES		CO-60 ; CS-137		6.6526E-02 : 1.7980E-03		NA		11.50 lb 477.00 lb		07-001583 (DR04-081)	
FOR CONSIGNEE USE ONLY Tennessee "License For Delivery" No. _____ South Carolina Transport Permit No. _____ US Ecology Generator No. _____ US Ecology Permit No. _____		20. Generator Certification Statement A) Radioactive Materials. Certification is hereby made that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and with the current edition of the title 10 Federal Acquisition Regulation. B) Hazardous Materials. Generator hereby certifies that this material does not contain a hazardous waste as defined in 40 CFR 261. C) Date. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) are true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and state (Radioactive Material) licenses. D) HAZARDOUS SUBSTANCE. Generator hereby certifies that this material does not contain an infectious substance as defined in 29 CFR 173.133. James B. Colapros  11-16-07															

Form 540 (10-06)

Modified Date: 11/15/2007 09:38

Received 11/20/07
 B Hawwell

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 FSZ), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541 EnergySolutions, Bear Creek Processing Operations UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste.		1. MANIFEST TOTALS										2. MANIFEST NUMBER																																												
		NUMBER OF PACKAGES/ DISPOSAL CONTAINERS		NET WASTE VOLUME		NET WASTE WEIGHT		SPECIAL NUCLEAR MATERIAL (grams)				T074683																																												
		3		m ³ 0.83 R ³ 22.50		kg 380.12 lb 838.00		U-233 NP		U-235 NP		Pu NP		TOTAL NP																																										
		ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/cc)										SOURCE																																												
		ALL NUCLIDES		TRITIUM		C-14		Tc-99		I-129		SHIPMENT ID NUMBER																																												
		MBq 9.2352E-02		NP		NP		NP		NP		T074683																																												
		mCi 2.4960E-03		NP		NP		NP		NP																																														
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER				16. WASTE CLASSIFICATION																																										
5.	6.	7.	8.	9.	10.		11.			12.		13.		14.		15.		16.																																						
CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	VOLUME m ³ ft ³	WASTE AND CONTAINER WEIGHT kg lb	SURFACE RADIATION LEVEL mSv/hr mrem/hr	SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		WASTE DESCRIPTOR (See Note 2)	APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ R ³	SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		RADIONUCLIDES	MBq	mCi	CLASSIFICATION																																							
# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container		# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container		# - Interpack Container	# - Interpack Container	# - Interpack Container	# - Interpack Container																																							
07-001581 (DR04-072) 3650	4 LI E	0.33 11.50	127.92 271.00	< 5.000E-03 < 5.000E-01	< 1.6700E-06 < 1.000E+02		25	0.21 7.50	100	LIQUID METAL OXIDES / NP	NP	CS-137		4.2180E-04	1.1400E-05	AU																																								
07-001582 (DR04-77) 3650	4 CI E	0.33 11.50	217.72 480.00	< 5.000E-03 < 5.000E-01	< 1.6700E-06 < 1.000E+02		24	0.21 7.50	100	LIQUID METAL OXIDES / NP	NP	CO-60 CS-137		3.2412E-03 2.2101E-02	8.7900E-05 4.6000E-04	AU																																								
07-001583 (DR04-061) 3650	4 CI E	0.33 11.50	218.38 477.00	< 5.000E-03 < 5.000E-01	< 1.6700E-06 < 1.000E+02		24	0.21 7.50	100	LIQUID METAL OXIDES / NP	NP	CO-60 CS-137		2.8580E-02 3.8960E-02	7.1800E-04 1.0800E-03	AU																																								
Shipment Total		0.99 34.50	557.00 1228.00									9.2352E-02		2.4960E-03																																										
NOTE 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks, the numerical code must be followed by "OP."			NOTE 1A: Process Requested			NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)			NOTE 2A: Burial/Disposition Site			NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media involving disposal site structural stability requirements, the numerical code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13. Code 100=None Required																																												
1. Wooden Box or Crate	2. Metal Box	3. Plastic Drum or Pail	4. Metal Drum or Pail	5. Metal Tank or Liner	6. Concrete Tank or Liner	7. Polyethylene Tank or Liner	8. Fiberglass Tank or Liner	9. Demolition Rubble	10. Steam Reforming	11. Direct Incineration	12. Soil & Infiltrate	13. Dosem	14. Green Is Clean	15. Metal Mat	16. Trans-Ship	17. Liquid for Incineration	18. Oil for Incineration	19. Other (describe)	20. Charcoal	21. Incinerator Ash	22. Soil	23. Gas	24. Oil	25. Aqueous Liquid	26. Filter Media	27. Mechanical Filter	28. EPA or State Hazardous	29. Demolition Rubble	30. Cation Ion-exchange Media	31. Anion Ion-exchange Media	32. Mixed Bed Ion-exchange Media	33. Contaminated Equipment	34. Organic Liquid (except oil)	35. Sludges or Liquors	36. Sealed Source/Device	37. Paint or Plating	38. Evaporator Bottoms/Sludge/ Concentrates	39. Compressible Trash	40. Noncompressible Trash	41. Animal Carcass	42. Biological Material (except animal carcass)	43. Activated Material	44. Other, describe in Item 11, or additional page	5. Barnwell Waste Management Facility	6. Environmental	R. Richland, WA	PR. Process and Return	O. Other	Solidification	98. Cement	99. Concrete (encompassed)	100. None Required	94. Vinyl Ester/ Styrene	95. Other, describe in Item 13, or additional page	96. Bitumen	97. Vinyl Chloride

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to InfoCollection@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NRC-10202, (3159-0100), Office of Management and Budget, Washington, DC 20503. If a message used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 542 (7-2001)		Energy Solutions, Bear Creek Processing Operations		1. WASTE COLLECTOR/PROCESSOR				2. MANIFEST NUMBER			
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST				NAME		SHIPPER USE ONLY		TD74683			
MANIFEST INDEX AND REGIONAL COMPACT TABULATION				IDENTIFICATION NUMBER				PAGE 1 OF 1 PAGE(S)			
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators				3650							
				SHIPPING DATE							
				11/19/2007							
4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m ³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P-PROCESSED C-COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL				
							A. SOURCE MATERIAL (kg)	B. SHR (g)	C. ACTIVITY MBq	D. VOLUME m ³	
3650	TVA-Power Service Center EPA #: 2356 314-7970	127 Reservation Road Muscle Shoals, AL 35681	0.63	Onsite Generation 11/19/2007	C	AL	NP	NP	9.2352E-02	0.63	
TOTALS OF ALL PAGES (FORMS 542 AND 542A)							NP	NP	9.2352E-02	0.63	

ISOTOPIC SUMMARY

For Manifest # T074683

EnergySolutions. Bear Creek Processing Operations

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
CO-60	2.9807E-02	8.0560E-04	8.0560E-07	.0000E+00	.0000E+00
CS-137	6.2545E-02	1.5904E-03	1.6904E-06	.0000E+00	.0000E+00
Totals:	9.2352E-02	2.4960E-03	2.4960E-05	.0000E+00	.0000E+00



Wednesday, November 21, 2007

Bobby Davis
Tennessee Valley Authority (Power Service Shop)/AL
1490 Dock Street
Memphis, TN 38113

Dear Mr. Davis:

The attached signed shipping manifest copies are your notice of receipt of the radioactive waste materials shipment specified on the manifest number below.

<u>Manifest Number</u>	<u>Date Received</u>
3650-T074683	11/21/2007

Thank you for your business.

Sincerely,

A handwritten signature in black ink that reads "Pam Thompson".

Shipping and Receiving

cc: Manifest File
Shipping and Receiving file



February 11, 2008

Mr. Jim Colagross
Tennessee Valley Authority (Power Service Shop)/AL
Reservation Road
Muscle Shoals, AL 35662

Dear Mr. Colagross:

This letter certifies that Duratek, Inc. has completed processing and/or shipment of all the radioactive materials shipped to Duratek, Inc. on the following manifest(s) sent by Tennessee Valley Authority (Power Service Shop)/AL.

<u>Manifest Number</u>	<u>Close Date</u>
3650-T074683	01/03/08

Should you have any questions concerning the processing of the waste, please refer to your monthly Customer Summary Report. Please contact your Account Executive if further data is required.

Duratek Tracking Systems

To: Jim Colagross

Attachment 6

Waste Manifest Numbers 002785862JJK

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
002785862JJK	002785862JJK	60	12/13/2007	Diversified Scientific Services, Inc. Kingston, TN	12/13/2007

APPROVED BY OMB: NO. 3180-0184
EXPIRES: 06/30/2007

Estimated burden per response to comply with this information collection request: 48 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch, (T-8 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to infocollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, (REG-10233, (1600-0184), Office of Management and Budget, Washington, DC 20463. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (6-2004)		U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		3. SHIPPER - NAME AND FACILITY Diversified Scientific Services, Inc. 457 Gallaher Road Kingston, TN 37763		SHIPPER I.D. NUMBER TND982109143 <input checked="" type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR		7. NRC FORM 540 AND 540A PAGE 1 OF 8 PAGE(S) NRC FORM 541 AND 541A 14 PAGE(S) NRC FORM 542 AND 542A 1 PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all construction pages) 00278682 JJK	
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 800-237-2322				USER PERMIT NUMBER T-TN011-157		SHIPMENT NUMBER		8. CONSIGNEE - Name and Facility Address Diversified Scientific Services, Inc. 667 Gallaher Road Kingston, TN 37763		CONTACT Waste Tracking TELEPHONE NUMBER (Include Area Code) 865-376-8747	
ORGANIZATION TVA Operation Duty Specialist				CONTACT Ready Fletcher		TELEPHONE NUMBER (Include Area Code) 913-345-1644		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Clawm Yawitz</i>		DATE 12/13/07	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 80		6. CARRIER - Name and Address Wizman Transportation Services 628 Gallaher Road Kingston, TN 37763		EPA I.D. NUMBER TND98773068		SHIPPING DATE 12/13/2007		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, stored, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.	
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number _____		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		EPA MANIFEST NUMBER 00278682 JJK		CONTACT Jeff Peckatt		TELEPHONE NUMBER (Include Area Code) 865-376-8187		SIGNATURE - Authorized shipper acknowledging waste receipt <i>Jeff Peckatt</i>	
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. IDENTIFICATION NUMBER OF PACKAGE	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>(Rq, D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,4763E-02	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>Rq (D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,6133E-02	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>Rq (D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,6836E-02	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>Rq (D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,5762E-02	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>Rq (D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,6132E-02	
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>Rq (D001)</i>		NA		NA		Liquid Oxide		Cs-137		1,6132E-02	
FOR CONSIGNEE USE ONLY											

NP-77004 540 (6-2004)

RECEIVED AT HW
DEC 19 2007
MUSCLE SHOALS

NRC FORM 540A
(3-95)

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)**

U.S. NUCLEAR REGULATORY COMMISSION

8. MANIFEST NUMBER
(Use this number on all continuation pages)
002785862 JJK

Page 2 of 6

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023158 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5836E-02	NA	506 LBS; 7.35 FT3	1023157 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023158 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023159 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023160 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023161 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023162 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5910E-02	NA	508 LBS; 7.35 FT3	1023163 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023164 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023165 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023166 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023167 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6354E-02	NA	521 LBS; 7.35 FT3	1023168 ✓

NRC FORM 540A (3-95)

NRC FORM 540A
(3-95)

**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)**

U.S. NUCLEAR REGULATORY COMMISSION

8. MANIFEST NUMBER
(Use this number on all continuation pages)
002785862 JJK

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11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSASCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5910E-02	NA	508 LBS; 7.35 FT3	1023169 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023170 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023171 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023172 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023173 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023174 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5910E-02	NA	508 LBS; 7.35 FT3	1023175 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023176 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023177 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023178 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.0619E-02	NA	356 LBS; 7.35 FT3	1023179 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023180 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RQ (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023181 ✓

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NRC FORM 540A
(3-95)

U.S. NUCLEAR REGULATORY COMMISSION

8. MANIFEST NUMBER
(Use this number on all continuation pages)
002785862 JJK

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)

Page 4 of 6

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSASCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023182 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023183 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023184 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023185 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023186 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023187 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023188 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023189 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023190 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6132E-02	NA	515 LBS; 7.35 FT3	1023191 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5910E-02	NA	508 LBS; 7.35 FT3	1023192 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023193 ✓
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG (D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023194 ✓

NRC FORM 540A (3-95)

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5910E-02	NA	508 LBS; 7.35 FT3	1023195
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6280E-02	NA	519 LBS; 7.35 FT3	1023196
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6206E-02	NA	517 LBS; 7.35 FT3	1023197
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.4541E-02	NA	469 LBS; 7.35 FT3	1023198
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6465E-02	NA	524 LBS; 7.35 FT3	1023199
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6354E-02	NA	521 LBS; 7.35 FT3	1023200
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6354E-02	NA	521 LBS; 7.35 FT3	1023201
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023202
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6354E-02	NA	521 LBS; 7.35 FT3	1023203
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5836E-02	NA	506 LBS; 7.35 FT3	1023204
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023205
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.5984E-02	NA	510 LBS; 7.35 FT3	1023206
Waste, Resin solution, flammable 3 UN1866 PGIII, Spent Insulating Varnish <i>RG(D001)</i>	NA	NA	Liquid Oxide	Cs-137	1.6058E-02	NA	513 LBS; 7.35 FT3	1023207

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES			16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Waste, Resin solution, flammable 3 UN1886 PGIII, Spent Insulating Varnish <i>RA (D01)</i>	NA	NA	Liquid Oxide	Cs-137			1.5688E-02	NA	502 LBS; 7.35 FT3	1023208
Waste, Resin solution, flammable 3 UN1886 PGIII, Spent Insulating Varnish <i>RA (D01)</i>	NA	NA	Liquid Oxide	Cs-137			1.2247E-03	NA	86 LBS; 7.35 FT3	1023209

2.57E-2 mCi ✓

APPROVED BY OMB: NO. 3150-0186
EXPIRES: 06/30/2007

Estimated burden per response to comply with this information collection request: 1.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 P52), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0186), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										1. MANIFEST TOTALS					2. MANIFEST NUMBER			
CONTAINER AND WASTE DESCRIPTION										SPECIAL NUCLEAR MATERIAL (grams)					002785862 JJK			
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste										60	12.4860	13660.3888	NP	NP	NP	NP	3. PAGE 1 OF 14 PAGE(S)	
DISPOSAL CONTAINER DESCRIPTION										ACTIVITY (MBq)					4. SHIPPER NAME			
										ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	Diversified Scientific Services, Inc.	
										9.4121E-01		NP	NP	NP	NP	NA	SHIPPER ID NUMBER TND982109142	
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					15. WASTE CLASSIFICATION			
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (µSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		AS-Class A AU-Class A U-Instable B-Class B C-Class C				
				µSv/hr	ALPHA	BETA-GAMMA			CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT							
10231501/AL2640090005	4	0.2081	215.4554	<5.0000E+00	<3.6740E-08	<3.6740E-05	34	0.2081	100/100	Oxide/N/A	NP	Cs-137	1.4763E-02	AU				
													Total	1.4763E-02 MBq				
10231511/AL2640090005	4	0.2081	220.4459	<5.0000E+00	<3.6740E-08	<3.6740E-05	34	0.2081	100/100	Oxide/N/A	NP	Cs-137	1.5133E-02	AU				
													Total	1.5133E-02 MBq				
10231521/AL2640090005	4	0.2081	229.5178	<5.0000E+00	<3.6740E-08	<3.6740E-05	34	0.2081	100/100	Oxide/N/A	NP	Cs-137	1.5838E-02	AU				
													Total	1.5838E-02 MBq				

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "-OP."

- | | |
|-------------------------------|---|
| 1. Wooden Box or Crate | 9. Demineralizer |
| 2. Metal Box | 10. Gas Cylinder |
| 3. Plastic Drum or Pail | 11. Bulk Unpackaged Waste |
| 4. Metal Drum or Pail | 12. Unpackaged Components |
| 5. Metal Tank or Liner | 13. High Integrity Container |
| 6. Concrete Tank or Liner | 19. Other. Describe in Item 8, or additional page |
| 7. Polyethylene Tank or Liner | |
| 8. Fiberglass Tank or Liner | |

Note 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

- | | | |
|----------------------------|----------------------------------|--|
| 20. Charcoal | 29. Demolition Rubble | 38. Evaporator Bottoms/Skudges/Concentrates |
| 21. Incinerator Ash | 30. Cation Ion-exchange Media | 39. Compactible Trash |
| 22. Soil | 31. Anion Ion-exchange Media | 40. Noncompactible Trash |
| 23. Gas | 32. Mixed Bed Ion-exchange Media | 41. Animal Carcass |
| 24. Oil | 33. Contaminated Equipment | 42. Biological Material (except animal carcass) |
| 25. Aqueous Liquid | 34. Organic Liquid (except oil) | 43. Activated Material |
| 26. Filter Media | 35. Glassware or Lintware | 59. Other. Describe in Item 11, or additional page |
| 27. Mechanical Filter | 36. Sealed Source/Device | |
| 28. EPA or State Hazardous | 37. Paint or Plating | |

Note 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

- | | | | | | | | |
|-------------------------|------------------|--------------------|-----------------|---|------------------------------|--|--|
| Sorption | | | | Solidification | | | |
| 60. Speedi Dri | 64. Safe T Sorb | 69. Chemisil 30 | 74. Petroset I | 89. Other Describe in item 13, or additional page | 90. Cement | 94. Vinyl Ester Styrene | |
| 61. Celatom | 65. Safe N Dri | 70. Chemisil 50 | 75. Petroset II | | 91. Concrete (encapsulation) | 99. Other. Describe in item 13, or additional page | |
| 62. Floor Dry/Superfine | 66. Florco X | 71. Chemisil 3030 | 76. Aquaset I | | 92. Bitumen | | |
| | 67. Florco X | 72. Dicaperl HP200 | 77. Aquaset II | | 93. Vinyl Chloride | 100. None Required | |
| 63. Hi Dri | 68. Solid A Sorb | 73. Dicaperl HP500 | | | | | |

NRC FORM 541 (8-2004)

12/13/07

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR REGULATORY COMMISSION

2. MANIFEST NUMBER
002785862 JJK

3. PAGE 2 OF 14 PAGE(S)

CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION					PHYSICAL DESCRIPTION			WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER		RADIOLOGICAL DESCRIPTION		18. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C	
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input type="checkbox"/> (uSv/hr) <input type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2) ALPHA BETA-GAMMA		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%		15. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT
1023153/AL284008000 5	4	0.2081	228.6106	<input checked="" type="checkbox"/> <5.0000E-00	<3.6740E-06	<3.6740E-06	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.5762E-02	AU
												Total 1.5762E-02 MBq	
1023154/AL284008000 5	4	0.2081	233.8001	<5.0000E-00	<3.6740E-06	<3.6740E-06	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6132E-02	AU
												Total 1.6132E-02 MBq	
1023155/AL284008000 5	4	0.2081	233.8001	<5.0000E-00	<3.6740E-06	<3.6740E-06	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6132E-02	AU
												Total 1.6132E-02 MBq	
1023156/AL284008000 5	4	0.2081	232.8929	<5.0000E-00	<3.6740E-06	<3.6740E-06	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6058E-02	AU
												Total 1.6058E-02 MBq	
1023157/AL284008000 5	4	0.2081	229.5178	<5.0000E-00	<3.6740E-06	<3.6740E-06	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.5836E-02	AU

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR REGULATORY COMMISSION

2. MANIFEST NUMBER
002785862 JJK

3. PAGE 3 OF 14 PAGE(S)

CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C		
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (μ Sv/hr) <input checked="" type="checkbox"/>	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT IF > 0.1%		15. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	
					ALPHA	BETA-GAMMA						Total	1.5838E-02 MBq	
10231581AL284009000 5	4	0.2081	234.5973	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6206E-02	AU
												Total	1.6206E-02 MBq	
10231581AL284009000 5	4	0.2081	232.5929	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU
												Total	1.6058E-02 MBq	
10231601AL284009000 5	4	0.2081	231.3321	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
												Total	1.5984E-02 MBq	
10231611AL284009000 5	4	0.2081	232.6929	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU
												Total	1.6058E-02 MBq	

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7
3
3

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR REGULATORY COMMISSION

2. MANIFEST NUMBER
002785862 JJK

CONTAINER AND WASTE DESCRIPTION

3. PAGE 4 OF 14 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION					PHYSICAL DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER			18. WASTE CLASSIFICATION: AS-Class A Stable AU-Class A Unstable B-Class B C-Class C	
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (µSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION		
					ALPHA	BETA-GAMMA								
1023162/AL264009000 5	4	0.2081	232.6929	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6058E-02	AU	
												Total	1.6058E-02 MBq	
1023163/AL264009000 5	4	0.2081	230.4249	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.5910E-02	AU	
												Total	1.5910E-02 MBq	
1023164/AL264009000 5	4	0.2081	233.6001	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6132E-02	AU	
												Total	1.6132E-02 MBq	
1023185/AL264009000 5	4	0.2081	232.6929	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6058E-02	AU	
												Total	1.6058E-02 MBq	
1023189/AL264009000 5	4	0.2081	233.6001	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6132E-02	AU	

UNIFORM LOW-LEVEL RADIOACTIVE
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CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C	
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input checked="" type="checkbox"/> (uSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
												Total	1.6132E-02 MBq	
1023187/AL2840090005	4	0.2081	231.3321	<5.0000E-00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Code/N/A	NP	Cs-137	1.5984E-02	AU
												Total	1.5984E-02 MBq	
1023188/AL2840090005	4	0.2081	236.3216	<5.0000E-00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Code/N/A	NP	Cs-137	1.6354E-02	AU
												Total	1.6354E-02 MBq	
1023189/AL2840090005	4	0.2081	230.4249	<5.0000E-00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Code/N/A	NP	Cs-137	1.5910E-02	AU
												Total	1.5910E-02 MBq	
1023170/AL2840090005	4	0.2081	235.4145	<5.0000E-00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Code/N/A	NP	Cs-137	1.6280E-02	AU
												Total	1.6280E-02 MBq	

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CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							18. WASTE CLASSIFICATION AS-Class A B-Class A U-Class A Unstable B-Class B C-Class C			
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION <small>(See Note 1)</small>	7. VOLUME <small>(m3)</small>	8. WASTE AND CONTAINER WEIGHT <small>(kg)</small>	9. SURFACE RADIATION LEVEL <small>(μSv/hr) (mSv/hr)</small>	10. SURFACE CONTAMINATION <small>(MBq/100 cm2)</small>			11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION <small>(See Note 2)</small>	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER <small>(m3)</small>	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA <small>(See Note 3)</small>	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT <small>IF > 0.1%</small>		INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
102317/UAL2640090005	4	0.2081	234.5073	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6206E-02	AU	
												Total	1.6206E-02 MBq		
102317/UAL2640090005	4	0.2081	238.4145	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6280E-02	AU	
												Total	1.6280E-02 MBq		
102317/UAL2640090005	4	0.2081	234.5073	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6206E-02	AU	
												Total	1.6206E-02 MBq		
102317/UAL2640090005	4	0.2081	232.6829	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU	
												Total	1.6058E-02 MBq		
102317/UAL2640090005	4	0.2081	230.4246	<5.0000E+00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5910E-02	AU	

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DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							14. WASTE CLASSIFICATION AS-Class A Subclass AU-Class A Unstable B-Class B C-Class C		
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input type="checkbox"/> (μSv/hr) <input type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION			15. RADIOLOGICAL DESCRIPTION	
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT (F > 0.1%)	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
												Total	1.5910E-02 MBq	
1023178/AL284008000 5	4	0.2081	232.8929	<5.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU
												Total	1.6058E-02 MBq	
1023177/AL284008000 5	4	0.2081	233.6001	<5.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6132E-02	AU
												Total	1.6132E-02 MBq	
1023178/AL284008000 5	4	0.2081	232.6829	<5.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU
												Total	1.6058E-02 MBq	
1023179/AL284008000 5	4	0.2081	161.4789	<5.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.0619E-02	AU
												Total	1.0619E-02 MBq	

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**UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
CONTAINER AND WASTE DESCRIPTION**

DISPOSAL CONTAINER DESCRIPTION					SURFACE CONTAMINATION			PHYSICAL DESCRIPTION			WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER		15. RADIOLOGICAL DESCRIPTION	16. WASTE CLASSIFICATION
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (μSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)	ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION	WEIGHT % CHELATING AGENT IF > 0.1%		
1023180/AL2840090005	4	0.2081	232.6829	<5.0000E-00	<3.6740E-06	<3.6740E-06		34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6058E-02	AU
													Total 1.6058E-02 MBq	
1023181/AL2840090005	4	0.2081	231.3321	<5.0000E-00	<3.6740E-06	<3.6740E-06		34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.5984E-02	AU
													Total 1.5984E-02 MBq	
1023182/AL2840090005	4	0.2081	234.5073	<5.0000E-00	<3.6740E-06	<3.6740E-06		34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6206E-02	AU
													Total 1.6206E-02 MBq	
1023183/AL2840090005	4	0.2081	235.4145	<5.0000E-00	<3.6740E-06	<3.6740E-06		34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6280E-02	AU
													Total 1.6280E-02 MBq	
1023184/AL2840090005	4	0.2081	233.5001	<5.0000E-00	<3.6740E-06	<3.6740E-06		34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6132E-02	AU

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CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							16. WASTE CLASSIFICATION AS-Class A Subclass A AU-Class A Unstable B-Class B C-Class C		
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input type="checkbox"/> (uSv/hr) <input type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION			15. RADIOLOGICAL DESCRIPTION	
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
												Total	1.6132E-02 MBq	
1023185/AL284009000 5	4	0.2081	233.6091	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6132E-02	AU
												Total	1.6132E-02 MBq	
1023188/AL284009000 5	4	0.2081	231.3321	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
												Total	1.5984E-02 MBq	
1023187/AL284009000 5	4	0.2081	235.4145	<5.0000E-00	<3.6740E-09	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6280E-02	AU
												Total	1.6280E-02 MBq	
1023189/AL284009000 5	4	0.2081	232.8929	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6058E-02	AU
												Total	1.6058E-02 MBq	

**UNIFORM LOW-LEVEL RADIOACTIVE
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CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							18. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C		
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (μ Sv/hr) <input checked="" type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		12. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION	15. RADIOLOGICAL DESCRIPTION			
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)				WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT
1023189/AL2640090005	4	0.2081	231.3321	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
Total													1.5984E-02 MBq	
1023190/AL2640090005	4	0.2081	231.3321	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
Total													1.5984E-02 MBq	
1023191/AL2640090005	4	0.2081	233.6001	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6132E-02	AU
Total													1.6132E-02 MBq	
1023192/AL2640090005	4	0.2081	230.4249	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5910E-02	AU
Total													1.5910E-02 MBq	
1023193/AL2640090005	4	0.2081	235.3145	<5.0000E-00	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6280E-02	AU

**UNIFORM LOW-LEVEL RADIOACTIVE
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CONTAINER AND WASTE DESCRIPTION**

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER							18. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C		
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (<input checked="" type="checkbox"/> μ Sv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		12. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION			15. RADIOLOGICAL DESCRIPTION	
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%		INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	
												Total	1.6280E-02 MBq	
1023194/AL284008000 5	4	0.2081	234.5073	<3.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6206E-02	AU
												Total	1.6206E-02 MBq	
1023195/AL284008000 5	4	0.2081	230.4249	<3.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5910E-02	AU
												Total	1.5910E-02 MBq	
1023196/AL284008000 5	4	0.2081	235.4145	<3.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6280E-02	AU
												Total	1.6280E-02 MBq	
1023197/AL284008000 5	4	0.2081	234.5073	<3.0000E+00	<3.6740E-08	<3.6740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6206E-02	AU
												Total	1.6206E-02 MBq	

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CONTAINER AND WASTE DESCRIPTION

DISPOSAL CONTAINER DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C				
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input checked="" type="checkbox"/> (µSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2)		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION	15. RADIOLOGICAL DESCRIPTION		
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)		WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	
1023198/AL284009000 5	4	0.2081	212.7348	<5.0000E-00	<3.8740E-08	<3.8740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.4541E-02	AU
												Total 1.4541E-02 MBq	
1023199/AL284009000 5	4	0.2081	237.8824	<5.0000E-00	<3.8740E-08	<3.8740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6465E-02	AU
												Total 1.6465E-02 MBq	
1023200/AL284009000 5	4	0.2081	238.3218	<5.0000E-00	<3.8740E-08	<3.8740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6354E-02	AU
												Total 1.6354E-02 MBq	
1023201/AL284009000 5	4	0.2081	238.3218	<5.0000E-00	<3.8740E-08	<3.8740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6354E-02	AU
												Total 1.6354E-02 MBq	
1023202/AL284009000 5	4	0.2081	232.8828	<5.0000E-00	<3.8740E-08	<3.8740E-08	34	0.2081	100 100	Oxide/N/A	NP	Cs-137 1.6058E-02	AU

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DISPOSAL CONTAINER DESCRIPTION					PHYSICAL DESCRIPTION			WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER			18. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C			
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (<input type="checkbox"/> $\mu\text{Sv/hr}$ <input type="checkbox"/> mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²) ALPHA BETA-GAMMA		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT		15. RADIOLOGICAL DESCRIPTION WEIGHT % CHELATING AGENT IF > 0.1% INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
											Total	1.6058E-02 MBq		
1023203/AL284009000 5	4	0.2081	236.3216	<3.0000E-00	<3.6740E-08	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.6354E-02	AU
												Total	1.6354E-02 MBq	
1023204/AL284009000 5	4	0.2081	229.5178	<3.0000E-00	<3.6740E-08	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5836E-02	AU
												Total	1.5836E-02 MBq	
1023205/AL284009000 5	4	0.2081	231.3321	<3.0000E-00	<3.6740E-08	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
												Total	1.5984E-02 MBq	
1023208/AL284009000 5	4	0.2081	231.3321	<3.0000E-00	<3.6740E-08	<3.6740E-05	34	0.2081	100 100	Oxide/N/A	NP	Cs-137	1.5984E-02	AU
												Total	1.5984E-02 MBq	

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR REGULATORY COMMISSION

2. MANIFEST NUMBER
002785862 JJK

CONTAINER AND WASTE DESCRIPTION

3. PAGE 14 OF 14 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
3. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL		10. SURFACE CONTAMINATION (MBq/100 cm2)		11. WASTE DESCRIPTION (See Note 2)	12. PHYSICAL DESCRIPTION		13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION	
				α (μSv/hr)	β (mSv/hr)	ALPHA	BETA-GAMMA		APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	WEIGHT % CHELATING AGENT IF > 0.1%		INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			
1023207/AL284008000 5	4	0.2081	232.8929	<5.0000E-00	<3.6740E-06	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/WA	NP	Cs-137 1.6058E-02	AU	
													Total 1.6058E-02 MBq		
1023208/AL284008000 5	4	0.2081	227.7034	<5.0000E-00	<3.6740E-06	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/WA	NP	Cs-137 1.5688E-02	AU	
													Total 1.5688E-02 MBq		
1023209/AL284008000 5	4	0.2081	38.0089	<5.0000E-00	<3.6740E-06	<3.6740E-06	<3.6740E-05	34	0.2081	100 100	Oxide/WA	NP	Cs-137 1.2247E-03	AU	
													Total 1.2247E-03 MBq		

APPROVED BY OMB: NO. 3150-0165
EXPIRES: 09/30/2007

Estimated burden per response to comply with this information collection request: 46 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0061, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE0B-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 542 (6-2004)		U.S. NUCLEAR REGULATORY COMMISSION		1. WASTE COLLECTOR/PROCESSOR				2. MANIFEST NUMBER									
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST		MANIFEST INDEX AND REGIONAL COMPACT TABULATION		NAME		SHIPPER USE ONLY		002785982 JJK									
				Diversified Scientific Services, Inc.													
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.		IDENTIFICATION NUMBER		IDENTIFICATION NUMBER		SHIPPING DATE		3. PAGE 1 OF 1 PAGE(S)									
				TND982109142													
4. GENERATOR IDENTIFICATION NUMBER		5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER		6. GENERATOR FACILITY ADDRESS		7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m3)		8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT		9. WASTE CODE P = PROCESSED C = COLLECTED		10. ORIGINATING COMPACT REGION OR STATE		11. AS PROCESSED/COLLECTED TOTAL			
														A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY (MBq)	D. VOLUME (m3)
AL2940090005	TVA Power Service Ctr. Waste Storage Facility 256-314-7870	Hwy 133 North PO Box 1010 Muscle Shoals, AL 35662-1010	12.4860	002785982 JJK (12/13/2007)	C	AL	0.0000E+00	0.0000E+00	9.4121E-01	12.4877							
TOTALS OF ALL PAGES (FORMS 542 AND 542A):							0.0000E+00	0.0000E+00	9.4121E-01	12.4877							

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL2640090005	2. Page 1 of 1	3. Emergency Response Phone 1-800-237-2322	4. Manifest Tracking Number 002785862 JJK	
5. Generator's Name and Mailing Address <i>attn: Kirby Pitts PSC 1E-M</i>		Generator's Site Address (if different than mailing address) <i>TVA Hazardous Waste Storage Facility R.D. Box 1010, Hwy 133N near Wilson Dam Mascote 5/2/85, AL 35662</i>				
Generator's Phone: 256-314-7871						
6. Transporter 1 Company Name H. H. Mann Transport Services		U.S. EPA ID Number TND987783065				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address <i>Diversified Scientific Sys. Inc. (DSSI) 657 Gallaher Road Kingsston, TN 37763</i>		U.S. EPA ID Number TND982109142				
Facility's Phone: 965-376-8586						
9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
		No.	Type			
RG	Waste Resin Solution, 3, UN1866, PG III	60	CM	13689	K	DC01
14. Special Handling Instructions and Additional Information <i>See Attached Manifest Info Sheet 961-ERG 127 TVA Contact No. 66726 wps # 07-11-015</i> Note: Material in each package contains radioactivity at a concentration less than that specified in 49CFR 173.403, 10CFR 71.5, and IATA Regulation 10.3.1						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offeror's Printed/Typed Name P. Paul Bonauer		Signature <i>P. Paul Bonauer</i>		Month Day Year 12 13 87		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name RICHARD STEPHENS		Signature <i>[Signature]</i>		Month Day Year 12 13 87		
Transporter 2 Printed/Typed Name		Signature		Month Day Year		
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____						
18b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)				Month Day Year		
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1	2	3	4			
	H129					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name Dawn Garrett		Signature <i>Dawn Garrett</i>		Month Day Year 12 13 87		

ISOTOPIC SUMMARY

For Manifest # T074683

EnergySolutions, Bear Creek Processing Operations

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
CO-60	2.9807E-02	8.0560E-04	8.0560E-07	.0000E+00	.0000E+00
CS-137	6.2545E-02	1.6904E-03	1.6904E-06	.0000E+00	.0000E+00
Totals:	9.2352E-02	2.4960E-03	2.4960E-06	.0000E+00	.0000E+00



Diversified Scientific Services, Inc.
 657 Gallaher Road Kingston, TN 37763
 Phone: 865-376-0084
 Fax: 865-376-0087

Date Sent: 12/13/07

ACKNOWLEDGMENT OF RECEIPT OF RADIOACTIVE WASTE

This is to certify that the radioactive material described below was received at the Diversified Scientific Services, Inc. (DSSI) facility in Kingston, Tennessee. This certification satisfies the requirements of Title 10 Code of Federal Regulations Par 20, Appendix G and the Tennessee "State Regulations for Protection Against Radiation". This letter acknowledges receipt of the waste only. Waste analysis has not been completed. If any discrepancies exist after waste analysis is complete, you will be contacted by separate correspondence.

Manifest Number: 002785862JJK

Shipment Authorization #: DSSI-07-224

Generator Name: TVA Power Service Center
 Address: P.O. Box 1010, Hwy. 133N near Wilson
Dam
Muscle Shoals, AL 35662-1010

Attention: Paul Bernauer

Shipper: Hittman Transport Services

Date Received: 12/13/07

Waste Tracking Specialist Signature: *Dawn Garrett* Date: 12/13/07

Discrepancies (if any):

RECEIVED AT HWL
DEC 18 2007
MUSCLE SHOALS

Attachment 7

Waste Manifest Numbers TVA-April-2013

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
TVA-April-2013	005342927FLE	8 (MWSF)	4/25/2013	Perma-Fix of Florida Gainesville, FL	4/26/2013

NOTE: The container numbers routinely used on the NRC Form 540 is the number assigned to the container by the Mixed Waste Storage Facility. In this case, the container numbers listed on the NRC Form 540 are the Generator assigned container numbers. The numbers correspond as listed below:

Generator Container No.	MWSF Container No.
11-RW0091	1044499
98-RWD-094	1044498
12-075	1045162
12-076	1045163
12-077	1045164
12-078	1045165
12-079	1045166
12-080	1045186

The NRC Form 540 includes 6 containers of low-level radioactive waste that are not hazardous waste and were not received or stored at the MWSF. This material is identified on the NRC Form 540 as Non-Regulated Material and was generated by the TVA's Power Services Shop under NRC Materials License No. 41-08165-08. The container numbers for this material as listed on the NRC Form 540 are provided below:

12-081	12-082	12-088
12-089	12-090	12-115

NRC FORM 540 (8-2010)		U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER - NAME AND FACILITY TVA PSC Hazardous Waste Storage Facility 283 Materials Drive Muscle Shoals, AL 35661		SHIPPER I.D. NUMBER NA <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR <input checked="" type="checkbox"/> GENERATOR TYPE (Specify) NP		7. NRC FORM 540 AND 540A PAGE 1 OF 2 PAGE(S) NRC FORM 541 AND 541A 4 PAGE(S) NRC FORM 542 AND 542A None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) TVA-April-2013							
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-535-5053				USER PERMIT NUMBER NA		SHIPMENT NUMBER		9. CONSIGNEE - Name and Facility Address Perma-Fix of Florida 1940 NW 67th Place Gainesville, FL 32653		CONTACT Tom McCartt TELEPHONE NUMBER (Include Area Code) 800-365-6066							
ORGANIZATION Infotrac (Account # 98800)				CONTACT Stacey McCluskey		TELEPHONE NUMBER (Include Area Code) 256-314-7872		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Tom McCartt</i>		DATE 4-26-13							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 14		6. CARRIER - Name and Address Hubbard Trucking 1017 Highway 223 Flat Lick, KY 40635		EPA I.D. NUMBER KYR000833241		SHIPPING DATE 04/25/2013		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		EPA MANIFEST NUMBER 005342927 FLE		CONTACT Joe Hubbard		SIGNATURE - Authorized shipper acknowledging waste receipt <i>James Blakley</i>		DATE 4-25-13							
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. INDIVIDUAL RADIONUCLIDES		16. TOTAL PACKAGE ACTIVITY (MBq)		17. LSAS/SCO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
RQ, NA3077, Hazardous waste, solid, n.o.s., 9, PG III (Polychlorinated Biphenyls, Tetrachloroethylene) ERG #171 Profile #R9997		NA		NA		Solid Oxide		Ag-110m Co-60 Mn-54		1.6495E-04		NA		105.84 LBS; 7.4 FT3		11-RWD-091	
RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 Profile #RS9664		NA		NA		Liquid Oxide		Ca-137		3.1043E-03		NA		483.05 LBS; 7.4 FT3		12-075	
RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 Profile #RS9664		NA		NA		Liquid Oxide		Ca-137		4.8840E-03		NA		507.15 LBS; 7.4 FT3		12-076	
RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 Profile #RS9664		NA		NA		Liquid Oxide		Ca-137		2.1867E-03		NA		458.64 LBS; 7.4 FT3		12-077	
RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 Profile #RS9664		NA		NA		Liquid Oxide		Ca-137		2.9933E-03		NA		286.65 LBS; 7.4 FT3		12-078	
RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 Profile #RS9664		NA		NA		Liquid Oxide		Ca-137		8.1770E-03		NA		370.44 LBS; 7.4 FT3		12-079	
FOR CONSIGNEE USE ONLY												Serial # 610284					

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST
SHIPPING PAPER (CONTINUATION)

1. U.S. DEPARTMENT OF TRANSPORTATION/DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	2. DOT LABEL "RADIOACTIVE"	3. TRANSPORT INDEX	4. PHYSICAL AND CHEMICAL FORM	5. ISOTOPE RADIOISOTOPES				6. TOTAL PACKAGE ACTIVITY (MBq)	7. IAEA/SCO CLASS	8. TOTAL WEIGHT OR VOLUME (Use appropriate units)	9. IDENTIFICATION NUMBER OF PACKAGE	
RG, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #120 - Profile #RB99004	NA	NA	Liquid Oxide	Cs-137				4.3960E-03	NA	264.6 LBS; 7.4 FT3	12-080	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				6.8970E-03	NA	249.349 LBS; 7.4 FT3	12-081	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				4.8610E-03	NA	264.448 LBS; 7.4 FT3	12-082	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				6.4390E-03	NA	264.6 LBS; 7.4 FT3	12-083	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				9.6790E-04	NA	260.035 LBS; 7.4 FT3	12-089	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				1.6428E-02	NA	263.875 LBS; 7.4 FT3	12-090	
Non-Regulated Material Profile #RB99000	NA	NA	Solid Oxide	Cs-137				1.0686E-03	NA	60.228 LBS; 7.4 FT3	12-118	
VA9077, Hazardous waste, solid, n.o.s., 8, PG III (Methylene Chloride, Methanol) Profile #RB99000	NA	NA	Solid Oxide	Ag-110m, Co-60 Nb-97 Zr-93	Co-134	Cs-137	P-18	Mn-54	3.2834E-04	NA	119.868 LBS; 7.4 FT3	98-RWD-054

APPROVED BY OMB: NO. 3150-0166
EXPIRES: 08/31/2013

Estimated burden per response to comply with this information collection request is 15 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State laws for the safe transportation and disposal of low-level radioactive waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollections.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										1. MANIFEST TOTALS				2. MANIFEST NUMBER		
CONTAINER AND WASTE DESCRIPTION										SPECIAL NUCLEAR MATERIAL (grams)				TVA-April-2013		
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste										U-233	U-235	Pu	Total	3. PAGE 1 OF 4 PAGE(S)		
DISPOSAL CONTAINER DESCRIPTION										ACTIVITY (MBq)				4. SHIPPER NAME		
WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	SHIPPER I.D. NUMBER
PHYSICAL DESCRIPTION										RADIOLOGICAL DESCRIPTION				6. WASTE CLASSIFICATION		
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (µSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm²)		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m³)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION	15. WEIGHT % CHELATING AGENT IF > 0.1%	16. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		17. CLASSIFICATION		
11-RWD-091AL2640090005 104499	4	0.2095	48.0082	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-SOLID, 28	0.2095	100 100	Oxide/NP	NP	Ag-110m Co-60 Mn-54	9.2130E-06 1.5022E-04 5.5130E-06	AU		
												Total	1.6495E-04 MBq			
12-075/AL2640090005 1045162	4	0.2095	210.0360	<5.0000E-03	<3.6740E-06	<3.6740E-05	34,28	0.2095	100 100	Oxide/NP	NP	Cs-137	3.1043E-03	AU		
												Total	3.1043E-03 MBq			
12-076/AL2640090005 1045163	4	0.2095	230.0394	<5.0000E-03	<3.6740E-06	<3.6740E-05	34,28	0.2095	100 100	Oxide/NP	NP	Cs-137	4.8840E-03	AU		
												Total	4.8840E-03 MBq			

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "OP."

1. Wooden Box or Crate	9. Demineralizer
2. Metal Box	10. Gas Cylinder
3. Plastic Drum or Pail	11. Bulk Unpackaged Waste
4. Metal Drum or Pail	12. Unpackaged Components
5. Metal Tank or Liner	13. High Integrity Container
6. Concrete Tank or Liner	19. Other. Describe in item 6, or additional page
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal	29. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrates
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compactible Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompactible Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid (except oil)	43. Activated Material
26. Filter Media	35. Glassware or Labware	59. Other. Describe in item 11, or additional page
27. Mechanical Filter	36. Sealed Source/Device	
28. EPA or State Hazardous	37. Paint or Plating	

Note 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in item 13. Code 100=NONE REQUIRED.

Sorption				Solidification			
50. Speedi On	54. Safe T Sorb	69. Chemsil 30	74. Petroset	89. Other	90. Cement	94. Vinyl Ester Styrene	
51. Caleform	55. Safe N On	70. Chemsil 50	75. Petroset II	Describe in item 13, or additional page	91. Concrete (encapsulation)	99. Other. Describe in item 13, or additional page	
52. Floor Dry/ Superfine	56. Florco	71. Chemsil 3030	76. Aquaset		92. Bitumen		
53. Hi Dn	57. Florco X	72. Diapan HP200	77. Aquaset II		93. Vinyl Chloride	100. None Required	
	58. Solid A Sorb	73. Diapan HP500					

4/25/13

UNIFORM LOW LEVEL RADIOACTIVE WASTE MANIFEST

U.S. NUCLEAR REGULATORY COMMISSION

2. MANIFEST NUMBER
1... April-2013

3. PAGE 2 OF 4 PAGE(S)

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (µSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT/SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION	WEIGHT % CHELATING AGENT (if > 0.1%)	15. RADIOLOGICAL DESCRIPTION			
				<input type="checkbox"/> (µSv/hr) <input checked="" type="checkbox"/> (mSv/hr)	ALPHA	BETA-GAMMA						INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			
12-077/AL2640090005 1045164	4	0.2055	208.0356	<5.0000E-03	<3.6740E-06	<3.6740E-05	34.28	0.2095	100 100	Oxide/NP	NP	Cs-137	2.1867E-03	AU	
												Total	2.1867E-03 MBq		
12-078/AL2640090005 1045165	4	0.2095	130.0223	<5.0000E-03	<3.6740E-06	<3.6740E-05	34.28	0.2095	100 100	Oxide/NP	NP	Cs-137	2.9933E-03	AU	
												Total	2.9933E-03 MBq		
12-079/AL2640090005 1045166	4	0.2095	168.0288	<5.0000E-03	<3.6740E-06	<3.6740E-05	34.28	0.2095	100 100	Oxide/NP	NP	Cs-137	8.1770E-03	AU	
												Total	8.1770E-03 MBq		
12-080/AL2640090005 1045186	4	0.2095	120.0265	<5.0000E-03	<3.6740E-06	<3.6740E-05	34.28	0.2095	100 100	Oxide/NP	NP	Cs-137	4.3660E-03	AU	
												Total	4.3660E-03 MBq		
12-081/AL2640090005 N.W.W.	4	0.2095	109.0187	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137	5.9570E-03	AU	

N.W.W. - NOT MIXED WASTE

UNIFORM LOW LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR

REGULATORY COMMISSION

2. MANIFEST NUMBER

100-100-000000

100-100-000000

3. PAGE 3 OF 4 PAGE(S)

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION									WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (μSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²) ALPHA BETA-GAMMA		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT WEIGHT % CHELATING AGENT IF > 0.1%		15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
				<input type="checkbox"/> (μSv/hr) <input checked="" type="checkbox"/> (mSv/hr)								Total	5.9570E-03 MBq	
12-088/AL2640090005 <i>NMW</i>	4	0.2095	129.0221	<5.0000E-03	<3.6740E-06	<3.6740E-05	99-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137	4.5510E-03	AU
												Total	4.5510E-03 MBq	
12-088/AL2640090005 <i>NMW</i>	4	0.2095	120.0205	<5.0000E-03	<3.6740E-06	<3.6740E-05	99-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137	5.4390E-03	AU
												Total	5.4390E-03 MBq	
12-089/AL2640090005 <i>NMW</i>	4	0.2095	127.0217	<5.0000E-03	<3.6740E-06	<3.6740E-05	99-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137	9.8790E-04	AU
												Total	9.8790E-04 MBq	
12-090/AL2640090005 <i>NMW</i>	4	0.2095	115.0197	<5.0000E-03	<3.6740E-06	<3.6740E-05	99-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137	1.6428E-02	AU
												Total	1.6428E-02 MBq	

Handwritten initials

UNIFORM LOW LEVEL RADIOACTIVE
WASTE MANIFEST

U.S. NUCLEAR

REGULATORY COMMISSION

2. MANIFEST NUMBER

April-2013

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

3. PAGE 4 OF 4 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL <input type="checkbox"/> μ Sv/hr <input checked="" type="checkbox"/> (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. WASTE DESCRIPTION (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT SCLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT IF > 0.1%	18. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	
12-115/AL2640090005 NMW	4	0.2095	45.0077	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-SOLID	0.2095	100 100	Oxide/NP	NP	Cs-137 1.0656E-03 Total 1.0656E-03 MBq	AU
38-RWD-094/AL2640090005 1044478	4	0.2095	53.091	<5.0000E-03	<3.6740E-06	<3.6740E-05	59-SOLID 28	0.2095	100 100	Oxide/NP	NP	Ag-110m 8.1770E-06 Co-60 5.1430E-05 Cs-134 1.0841E-04 Cs-137 8.3620E-05 F-18 7.4740E-06 Mn-54 2.1460E-05 Nb-97 9.2870E-06 Zn-65 3.8480E-05 Total 3.2834E-04 MBq	AU

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL 2840000005	2. Page 1 of 1	3. Emergency Response Phone 800-535-5053	4. Manifest Tracking Number 005342927 FLE	
5. Generator's Name and Mailing Address TVA PSC Hazardous Waste Storage Facility PO Box 1D10 Muscle Shoals, AL 35662						
Generator's Site Address (if different than mailing address) 289 Materials Drive Muscle Shoals, AL 35661						
Generator's Phone: 258-944-7879 <i>Att: Libby Pitts</i>						
6. Transporter 1 Company Name Hubbard Trucking, Inc.					U.S. EPA ID Number KYR000033241	
7. Transporter 2 Company Name						
U.S. EPA ID Number						
8. Designated Facility Name and Site Address Perma-Fix of Florida, Inc. 1840 NW 87th Pl Gainesville, FL 32653					U.S. EPA ID Number FLD990711071	
Facility's Phone: 800-365-8068						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity
	X 1.	RQ, UN1993, Waste flammable liquids, n.o.s., 3, PG II (Vinyl Toluene, Resin) ERG #128 2, 3, 4, 5, 6, 7		8		DM 1088
	X 2.	NA3077, Hazardous waste, solid, n.o.s., 9, PG III (Methylene Chloride, Methanol) ERG #171 Profile #RS9895 14		1		DM 53
	X 3.	RQ, NA3077, Hazardous waste, solid, n.o.s., 9, PG III (Polychlorinated Biphenyls, Tetrachloroethylene) ERG #171 Profile #RS9897 <i>out of service date: 10/6/2009</i>		1		DM 48
	4.	Non-Regulated Material 8, 9, 10, 11, 12, 13		8		DM 845
12. Unit WL/Vol. K						
13. Waste Codes DDD1 FDD2 DD39 DD4D FDD2						
14. Special Handling Instructions and Additional Information 9-1) 12-075, 12-076, 12-077, 12-078, 12-079, 12-080; 9-2) 98-RWD-004; 9-3) 11-RWD-001; 9-4) 12-081, 12-082, 12-088, 12-089, 12-090, 12-115 Emergency Contact #: Infotrac 1-800-535-5053 (Account #98800) 964- P55-4 Exclusive Use Shipment PCB Manifest Contract #: 534716						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/packaged, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offeror's Printed/Typed Name Stacey S McCluskey						
Signature <i>[Signature]</i>						
Month Day Year 4 25 13						
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name James Blakley						
Signature <i>[Signature]</i>						
Month Day Year 4 25 13						
Transporter 2 Printed/Typed Name						
Signature						
Month Day Year						
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____ U.S. EPA ID Number _____						
18b. Alternate Facility (or Generator)						
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)						
Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. H41		2. H41		3. H41		4. H41
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name Tom McGary						
Signature <i>[Signature]</i>						
Month Day Year 7 26 13						

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST ISOTOPES REPORT

For Manifest # TVA-April-2013
U.S. NUCLEAR REGULATORY COMMISSION

<u>Isotope</u>	Total Activity	
	<u>(MBq)</u>	<u>(mCi)</u>
Ag-110m	1.7390E-05	4.7000E-07
Co-60	2.0165E-04	5.4500E-06
Cs-134	1.0841E-04	2.9300E-06
Cs-137	6.0223E-02	1.6277E-03
F-18	7.4740E-06	2.0200E-07
Mn-54	2.6973E-05	7.2900E-07
Nb-97	9.2870E-06	2.5100E-07
Zn-65	3.8480E-05	1.0400E-06



01-May-13

TVA PSC HAZARDOUS WASTE STORAGE FAC
LIBBY PITTS
ENVIRONMENTAL SAFETY
PO BOX 1010
MUSCLE SHOALS AL 35662

REF: MANIFEST NUMBER: 005342927FLE
SHIPMENT NUMBER: DSSI-942-O
SHIPMENT DATE: 04/26/2013

ON THE ABOVE DATE, YOUR WASTE MATERIAL WAS RECEIVED AT OUR FACILITY.
PERMA-FIX OF FLORIDA EPA ID NUMBER FLD980711071

Received at HWSF

MAY 06 2013

Muscle Shoals, AL



EPA ID No. : FLD 980 711 071
Florida Part B Permit No. : 17680-010-HC

Certificate No. 20150331-001



Certificate of Management

Perma-Fix of Florida, Inc. has managed wastes received from: TVA PSC Hazardous Waste Storage Facility

EPA ID Number: AL2640090005
Manifest Number: 005342927FLE

3/31/2015

as identified in waste and hereby certifies such management as of in accordance with applicable Federal and State Regulations.

(Refer to the attached table for container specific information)

Shipment ID Number: DSSI-942-O

Date Received: 4/26/2013

Generator: TVA PSC Hazardous Waste Storage Facility

Address: P.O. Box
Muscle Shoals, AL 35662
ATTN: Libby Pitts

By: Randy Self
Title: Site Nuclear Manager

Signature: _____

A handwritten signature in black ink, appearing to read "Randy Self", written over a horizontal line.



Certificate of Management

Perma-Fix ID No.	Contract ID No.	Profile No.	Final Package ID No.
DSSI-942-01	11-RWD-091	RS-9697	E-3326
DSSI-942-02	12-075	RS-9664	P14-05-068
DSSI-942-03	12-076	RS-9664	P14-05-068
DSSI-942-04	12-077	RS-9664	P14-05-068
DSSI-942-05	12-078	RS-9664	E-3245
DSSI-942-06	12-079	RS-9664	E-3245
DSSI-942-07	12-080	RS-9664	E-3245

Perma-Fix ID No.	Contract ID No.	Profile No.	Final Package ID No.
DSSI-942-08	12-081	RS-9666	E-3195
DSSI-942-09	12-082	RS-9666	E-3195
DSSI-942-10	12-088	RS-9666	E-3179
DSSI-942-11	12-089	RS-9666	E-3195
DSSI-942-12	12-090	RS-9666	E-3195
DSSI-942-13	12-115	RS-9666	E-3156
DSSI-942-14	98-RWD-094	RS-9665	E-3177 E-3245

Attachment 8

Waste Manifest Numbers 2764-01

NRC Form 540 Manifest No.	EPA Form 8700-22 Manifest No.	Containers	Date Shipped	Recipient	Date Received
2764-01	002226727JJK	11	6/12/2013	Diversified Scientific Services, Inc. Kingston, TN	6/13/2013

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Privacy Services Branch (7-6 P62), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (2160-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540A		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER (CONTINUATION)						Energy Solutions / Bear Creek Operations		8. MANIFEST NUMBER (Use this number on all continuation pages) 2764-01	
PAGE 2 OF 2 PAGE(S)											
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq mCi		17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CE-144 ; CO-58 ; CO-60 ; CS-137 ; FE-55 ; MN-54 ; NB-95 ; NI-63 ; ZN-65	5.7851E+00	(1.5635E-01)	NA	7.50 ft ³ 180.00 lb	13-000040 (121326 (1046868))		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CE-144 ; CO-58 ; CO-60 ; CS-137 ; FE-55 ; MN-54 ; NB-95 ; NI-63 ; ZN-65	2.7383E+00	(7.4008E-02)	NA	7.50 ft ³ 165.00 lb	13-000041 (121384 (1046865))		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CE-144 ; CO-58 ; CO-60 ; CS-137 ; FE-55 ; MN-54 ; NB-95 ; NI-63 ; ZN-65	2.7283E+00	(7.3738E-02)	NA	7.50 ft ³ 100.00 lb	13-000042 (121474 (1046867))		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	CE-144 ; CO-67 ; CO-58 ; CO-60 ; CR-51 ; CS-137 ; FE-55 ; FE-59 ; MN-54 ; NB-95 ; NI-63 ; ZN-65 ; ZR-95	5.6058E+01	(1.8161E+00)	NA	7.50 ft ³ 180.00 lb	13-000043 (07-0030 (1046862))		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CE-144 ; CO-58 ; CO-60 ; CS-137 ; FE-55 ; MN-54 ; NB-95 ; NI-63 ; ZN-65	2.8220E+00	(7.8270E-02)	NA	7.50 ft ³ 150.00 lb	13-000044 (121222 (1046865))		
UN2810, WASTE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7; RQ (DO08) DAW; EPA OR STATE HAZARDOUS; LEAD; PAINT OR PLATING 1 - METAL DRUM	NA	NA	SOLID/METAL OXIDES	C-14 ; CE-144 ; CO-58 ; CO-60 ; CS-137 ; FE-55 ; MN-54 ; NB-95 ; NI-63 ; ZN-65	2.9462E+00	(7.9827E-02)	NA	7.50 ft ³ 200.00 lb	13-000045 (121016 (1046863))		

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (7-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollcts@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3100-0105), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541		Energy Solutions / Bear Creek Operations				1. MANIFEST TOTALS								2. MANIFEST NUMBER					
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION						NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams)				TOTAL	2754-01					
									U-233	U-235	Pu								
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste						11	m ³ l ³	2,336.4 kg 82,5000 lb	582.48 1240.00	NP	NP	NP	NP	3. PAGE 1 OF 6 PAGE(S)					
						ACTIVITY (MBq/mCi) (LLD UNITS in uCi/cc)						SOURCE				4. SHIPPER NAME			
						ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	TVA Power Service Center/CO Energy Solutions							
						MBq	mCi	7.740E-01	2.7702E-00	NP	NP	SHIPMENT ID NUMBER							
						7.3548E-00	NP	7.4870E-02	NP	NP	NP	T132323							
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
6. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	7. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURNAL POSITION (See Note 2A)	8. VOLUME	9. WASTE AND CONTAINER WEIGHT	10. SURFACE RADIATION LEVEL	11. SURFACE CONTAMINATION		12. WASTE DESCRIPTOR	13. APPROXIMATE WASTE VOLUME(S) IN CONTAINER	14. SOLIDIFICATION OR STABILIZATION MEDIA	15. CHEMICAL FORM/ CHELATING AGENT	16. WEIGHT % CHELATING AGENT IF > 0.1%	17. RADIOLOGICAL DESCRIPTION			18. WASTE CLASSIFICATION				
					ALPHA	BETA-GAMMA						INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	MBq	mCi					
13-000035 (121057 (1046882)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124 7.5000	77.11 170.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-06 < 1.0000E-02	< 1.8700E-06 < 1.0000E-03	59(LEAD) 59(DAW) 37 26	0.2124 7.5000	100	SOLID METAL OXIDES / NP	NP	C-14 CE-144 CO-58 CO-60 CS-137 FE-55 MN-54 NB-95 NI-63 ZN-65	2.5271E-01 1.2173E-02 1.2543E-01 4.1070E-01 2.6540E-02 1.6206E-00 1.2839E-01 3.6926E-02 2.1607E-01 3.6265E-02	6.8310E-03 3.2900E-04 3.3900E-03 1.1100E-02 7.2000E-04 4.3900E-02 3.4700E-03 9.9800E-04 5.9100E-03 9.8000E-04	7.7527E-02	AU			
Sub Total												2.8685E-00	7.7527E-02						
Package Total												2.8685E-00	7.7527E-02						
13-000038 (120993 (1046869)) 2784	4 C - PROCESS TO BE DETERMINED E	0.2124 7.5000	102.06 225.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-06 < 1.0000E-02	< 1.8700E-06 < 1.0000E-03	59(LEAD) 59(DAW) 37 26	0.2124 7.5000	100	SOLID METAL OXIDES / NP	NP	C-14 CE-144 CO-58 CO-60 CS-137 FE-55 MN-54 NB-95 NI-63 ZN-65	2.5666E-01 1.2802E-02 1.3172E-01 4.2920E-01 2.8009E-02 1.7020E-00 1.3505E-01 3.6800E-02 2.3016E-01 3.8110E-02	7.1900E-04 3.1500E-04 3.5600E-03 1.1600E-02 7.5700E-04 4.6000E-02 3.6500E-03 1.0500E-03 6.2210E-03 1.0300E-03	8.1394E-02	AU			
Sub Total												3.0116E-00	8.1394E-02						
Package Total												3.0116E-00	8.1394E-02						

NOTE 1: Container Description Codes. For containers/wastes requiring disposal in approved structural overpacks, the numerical code must be followed by "OP".

1. Wood/Plastic Box or Crate	8. Drum/Canister
2. Metal Box	9. Gas Cylinder
3. Flexible Drum or Pail	10. Bulk, Unpackaged Waste
4. Metal Drum or Pail	11. Bulk, Unpackaged Waste
5. Metal Tank or Liner	12. Unpackaged Component
6. Concrete Tank or Liner	13. High Integrity Container
7. Polyethylene Tank or Liner	14. Other. Describe in Item 8, or additional page
8. Fiberglass Tank or Liner	

NOTE 1A: Process Requested

C. Compositon
SR. Steam Reforming
D. Direct Incineration
B. Sort & Incinerate
O. Oxidize
G. Green in Cream
M. Metal Melt
T. Trans-Ship
L. Liquid for Incineration
DL. Oil for Incineration
O. Other (describe)

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Chemical	26. Demolition Rubble	38. Evaporator Bottoms/Sediment/Concentrates
21. Incinerator Ash	27. Cell Ion Exchange Media	39. Compressible Trash
22. Soil	28. Mixed Bed Ion Exchange Media	40. Noncompactible Trash
23. Gas	29. Contaminated Equipment	41. Animal Carcass
24. Oil	30. Organic Liquids (except oil)	42. Biological Material (except animal carcasses)
25. Aqueous Liquids	31. Filter Media	43. Activated Material
32. Filter Media	32. Filter Media	44. Other. Describe in Item 11, or additional page
27. Mechanical Filter	33. Spent Source Device	
28. EPA or State Hazardous	34. Paint or Plating	

NOTE 2A: B or A at Disposal Site

B. Bore. -1 Waste Management Facility
E. Envelope
R. Reclaim. W.
PN. Process and Return
O. Other

NOTE 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume.) For media meeting disposal site structural stability requirements, the numerical code must be followed by "S" and the media vendor and brand name must also be identified in Item 15. Code 100=none Required.

50. Cement	84. Vinyl Ester Styrene
51. Concrete (encapsulation)	85. Other. Describe in Item 13, or additional page
52. Slurries	100. None Required
53. Vinyl Chloride	

6/12/13

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (T-5 P52), U.S. Nuclear Regulatory Commission, Washington, DC 20455-0901, or by Internet e-mail to infocollections@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-1022, (3150-0188), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541A		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST											Energy Solutions / Bear Creek Operations		2. MANIFEST NUMBER 2764-01					
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)													3. PAGE 2 OF 6 PAGE(S)							
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER														16. WASTE CLASSIFICATION A5 - Class A Stable AU - Class A Unstable B - Class B C - Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/POSITION (See Note 2A)	7. VOLUME m ³ ft ³	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT								
					ALPHA	BETA-GAMMA						RADIONUCLIDES	MBq	mCi						
13-000037 (121050 (1046860)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124 7.5000	66.04 150.00	< 6.0000E-03 < 6.0000E-01	< 1.6700E-08 < 1.0000E-02	< 1.6700E-06 < 1.0000E-03	69(LEAD) 59(DAW) 37 28	0.2124 7.5000	100	SOLID METAL OXIDES / NP	NP	C-14	2.4864E-01	6.7200E-03	AU					
												CE-144	1.1988E-02	3.2400E-04						
												CO-58	1.2368E-01	3.3400E-03						
												CO-60	4.0330E-01	1.0900E-02						
												CS-137	2.6233E-02	7.0900E-04						
												FE-55	1.6947E-00	4.3100E-02						
												MN-54	1.2584E-01	3.4200E-03						
												NB-95	3.6334E-02	9.8200E-04						
												NI-63	2.1497E-01	5.8100E-03						
												ZN-65	3.5709E-02	9.6500E-04						
												Sub Total	2.8220E+00	7.8270E-02						
												Package Total	2.8220E+00	7.8270E-02						
13-000038 (121067 (1046864)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124 7.5000	54.43 120.00	< 5.0000E-03 < 5.0000E-01	< 1.6700E-08 < 1.0000E-02	< 1.6700E-06 < 1.0000E-03	69(LEAD) 59(DAW) 37 28	0.2124 7.5000	100	SOLID METAL OXIDES / NP	NP	C-14	2.4346E-01	6.6800E-03	AU					
												CE-144	1.1729E-02	3.1700E-04						
												CO-58	1.2099E-01	3.2700E-03						
												CO-60	3.9500E-01	1.0700E-02						
												CS-137	2.5678E-02	6.9400E-04						
												FE-55	1.5614E+00	4.2200E-02						
												MN-54	1.2395E-01	3.3500E-03						
												NB-95	3.5594E-02	9.6200E-04						
												NI-63	2.1053E-01	5.6600E-03						
												ZN-65	3.4928E-02	9.4400E-04						
												Sub Total	2.7642E+00	7.4707E-02						
												Package Total	2.7642E+00	7.4707E-02						

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-8 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0901, or by Internet e-mail to infocollecta@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NECB-1022, (3150-0188), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										Energy Solutions / Bear Creek Operations		2. MANIFEST NUMBER 2764-01			
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)										3. PAGE 3 OF 6 PAGE(S)					
DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
6. CONTAINER IDENTIFICATION NUMBER / GENERATOR NUMBER	7. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/COMPOSITION (See Note 2A)	8. VOLUME m ³ ft ³	9. WASTE AND CONTAINER WEIGHT kg lb	10. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		16. RADIOLOGICAL DESCRIPTION			
					11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM / CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT					
				ALPHA		BETA-GAMMA						RADIONUCLIDES			
13-000039 (121090 (1046861)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124	90.72	< 5.0000E-03	< 1.5700E-05	< 1.5700E-05	69(LEAD) 69(DAW) 37 28	0.2124	100	SOLID METAL OXIDES / NP	NP	C-14 CE-144 CO-68 CO-60 CS-137 FE-55 MN-54 NB-95 NI-63 ZN-65	2.5937E-01 1.2606E-02 1.2678E-01 4.2180E-01 2.7343E-02 1.6650E-00 1.3208E-01 3.7740E-02 2.2422E-01 3.7370E-02	7.0100E-03 3.3800E-04 3.4800E-03 1.1400E-02 7.3900E-04 4.5000E-02 3.5700E-03 1.0200E-03 8.0800E-03 1.0100E-03	AU
		7.5000	200.00	< 5.0000E-01	< 1.0000E-02	< 1.0000E-03		7.5000				Sub Total	2.9452E+00	7.9627E-02	
												Package Total	2.9452E+00	7.9627E-02	
13-000040 (121325 (1049868)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124	81.65	< 5.0000E-03	< 1.5700E-05	< 1.5700E-05	69(LEAD) 59(DAW) 37 28	0.2124	100	SOLID METAL OXIDES / NP	NP	C-14 CE-144 CO-58 CO-80 CS-137 FE-55 MN-54 NB-95 NI-63 ZN-65	5.1660E-01 2.4568E-02 2.5308E-01 8.2510E-01 5.3650E-02 3.2708E-00 2.5937E-01 7.4370E-02 4.4030E-01 7.3260E-02	1.3800E-02 6.6400E-04 6.6400E-03 2.2300E-02 1.4500E-03 8.8400E-02 7.0100E-03 2.0100E-03 1.1900E-02 1.9800E-03	AU
		7.5000	180.00	< 5.0000E-01	< 1.0000E-02	< 1.0000E-03		7.5000				Sub Total	5.7651E+00	1.5635E-01	
												Package Total	5.7651E+00	1.5635E-01	

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F&2), U.S. Nuclear Regulatory Commission, Washington, DC 20553-0001, or by Internet e-mail to infocollecta@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150 0165), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										Energy Solutions / Bear Creek Operations		2. MANIFEST NUMBER		16. WASTE CLASSIFICATION		
FORM 541A										2754-G1		PAGE 4 OF 6 PAGE(S)		AS - Class A Stable AU - Class A Unstable B - Class B C - Class C		
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DEPOSITION (See Note 2A)	7. VOLUME m ³ R ³	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ (l)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION			16. WASTE CLASSIFICATION	
					ALPHA	BETA-GAMMA						INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
												RADIONUCLIDES	MBq	mCi		
# - Inspect Container 13-000041 (121354 (1046886)) 2754	4 O - PROCESS TO BE DETERMINED E	0.2124 7.5000	47.83 105.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-06 < 1.0000E+02	< 1.8700E-05 < 1.0000E-03	59(LEAD) 59(DAW) 37 26	0.2124 7.5000	100	SOLID METAL OXIDES / NP	NP	C-14	2.4124E-01	6.6200E-03	AU	
												CE-144	1.1618E-02	3.1400E-04		
												CO-58	1.1980E-01	3.2400E-03		
												CO-60	3.9220E-01	1.0500E-02		
												CS-137	2.5415E-02	6.8700E-04		
												FE-55	1.5456E+00	4.1800E-02		
												MN-54	1.2284E-01	3.3200E-03		
												NB-96	3.5224E-02	9.5260E-04		
												NI-63	2.0866E-01	5.8400E-03		
												ZN-65	3.4595E-02	9.3500E-04		
												Sub Total	2.7383E+00	7.4008E-02		
												Package Total	2.7383E+00	7.4008E-02		
												13-000042 (121474 (1046887)) 2754	4 O - PROCESS TO BE DETERMINED E	0.2124 7.5000		48.38 103.00
CE-144	1.1581E-02	3.1300E-04														
CO-58	1.1951E-01	3.2300E-03														
CO-60	3.8850E-01	1.0500E-02														
CS-137	2.6345E-02	6.8500E-04														
FE-55	1.5429E+00	4.1700E-02														
MN-54	1.2247E-01	3.3100E-03														
NB-96	3.5113E-02	9.4900E-04														
NI-63	2.0794E-01	5.6200E-03														
ZN-65	3.4484E-02	9.3200E-04														
Sub Total	2.7283E+00	7.3739E-02														
Package Total	2.7283E+00	7.3739E-02														

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and Privacy Services Branch (T-5 F92), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, HEOB-10322, (3150-0160), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										Energy Solutions / Bear Creek Operations		2. MANIFEST NUMBER 2764-01			
CONTAINER AND WASTE DESCRIPTION (CONTINUATION)												3. PAGE 5 OF 6 PAGE(S)			
DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) SURFACE POSITION (See Note 2A)	7. VOLUME m ³ ft ³	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)			RADIONUCLIDES			
13-000043 (07-0030 (1046082)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124	88.18	< 5.0000E-03	< 1.6700E-06	< 1.6700E-05	59(LEAD) 59(DAW)	0.2124	100	SOLID METAL OXIDES / NP	NP	CE-144	1.4874E-02	4.0200E-04	AU
		7.6000	190.00	< 6.0000E-01	< 1.0000E-02	< 1.0000E-03	37 28	7.5000	CO-67 CO-58 CO-60 CR-51 CS-137 FE-55 FE-59 MN-54 NB-95 NI-63 Zn-65 ZR-95			6.3840E-03 7.3260E-01 3.7740E-03 6.7710E-01 6.8080E-03 4.3200E-01 3.0340E-01 3.9960E-00 9.0650E-02 1.7945E+00 1.2813E+00 8.9860E-02	1.7200E-04 1.9600E-02 1.0200E-01 1.6300E-02 1.8400E-04 1.1700E-00 6.2000E-03 1.0800E-01 2.4500E-03 4.6500E-02 3.4900E-02 2.1800E-03		
												Sub Total	5.6058E-01	1.5151E-00	
												Package Total	5.6058E+01	1.5151E+00	
13-000044 (121222 (1046885)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124	88.04	< 6.0000E-03	< 1.6700E-06	< 1.6700E-05	59(LEAD) 59(DAW)	0.2124	100	SOLID METAL OXIDES / NP	NP	C-14	2.4864E-01	6.7200E-03	AU
		7.5000	190.00	< 6.0000E-01	< 1.0000E-02	< 1.0000E-03	37 28	7.5000	CE-144 CO-58 CO-60 CS-137 FE-55 MN-54 NB-95 NI-63 Zn-65			1.1988E-02 1.2358E-01 4.0330E-01 2.6233E-02 1.6947E-00 1.2654E-01 3.6334E-02 2.1497E-01 3.3706E-02	3.2400E-04 3.3400E-03 1.0900E-02 7.0600E-04 4.3100E-02 3.4200E-03 9.8200E-04 5.8100E-03 9.8500E-04		
												Sub Total	2.8220E-00	7.6270E-02	
												Package Total	2.8220E-00	7.6270E-02	

Form 541A (10-96)

* - Indicates Cross Contamination

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-8 P52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to Infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202 (31 50-0168), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541A

Energy Solutions / Bear Creek Operations

2. MANIFEST NUMBER

2754-01

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

3. PAGE 6 OF 6 PAGE(S)

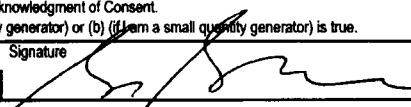
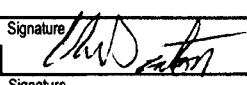
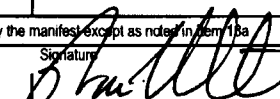
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										15. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
6. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	8. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) SURFACE POSITION (See Note 2A)	7. VOLUME m ³ ft ³	8. WASTE AND CONTAINER WEIGHT kg lb	9. SURFACE RADIATION LEVEL mSv/hr mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm ² dpm/100 cm ²		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m ³ ft ³	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT				
					ALPHA	BETA-GAMMA						RADIONUCLIDES	MBq	mCi		
# - Innerpack Container 13-000045 (121018 (1046953)) 2764	4 O - PROCESS TO BE DETERMINED E	0.2124 7.6000	90.72 200.00	< 5.0000E-03 < 5.0000E-01	< 1.6700E-06 < 1.0000E+02	< 1.6700E-06 < 1.0600E-03	69(LEAD) 69(DAW) 37 28	0.2124 7.6000	100	SOLID METAL OXIDES / NP	NP	C-14 CE-144 CO-58 CO-60 CS-137 FE-55 MN-54 NB-95 NI-63 ZN-65	2.5937E-01 1.2606E-02 1.2676E-01 4.2190E-01 2.7343E-02 1.6650E-00 1.3209E-01 3.7740E-02 2.2422E-01 3.7370E-02	7.0100E-03 3.3800E-04 3.4800E-03 1.1400E-02 7.3900E-04 4.5000E-02 3.5700E-03 1.0200E-03 6.0600E-03 1.0100E-03	AU	
												Sub Total	2.9462E+00	7.9627E-02		
Shipment Total		2.3384 82.5000	611.94 1790.00									Package Total	2.9462E+00	7.9627E-02		
													3.7491E-01	2.3648E-00		

Estimated burden per response to comply with this information collection request: 46 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (7-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NRC-10202, (3150-0169), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 542 (7-2001)			Energy Solutions / Bear Creek Operations				1. WASTE COLLECTOR/PROCESSOR		2. MANIFEST NUMBER			
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST			NAME TVA Power Service Center/CO EnergySolutions				SHIPPER USE ONLY		2764-01			
MANIFEST INDEX AND REGIONAL COMPACT TABULATION			IDENTIFICATION NUMBER 2764						3. PAGE 1 OF 1 PAGE(S)			
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators			SHIPPING DATE 06/12/2013									
4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m ³	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P-PROCESSED C-COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL					
							A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY MBq	D. VOLUME m ³		
2764	TVA Power Service Center EPA #: AL2 640 090 005 (256) 314-7872	283 Meterdale Drive, PO Box 1010 Muscle Shoals, AL 35662	2.3384	Onsite Generation 02/28/2013	C	AL	NP	NP	8.7491E+01	2.3384		
TOTALS OF ALL PAGES (FORMS 542 AND 542A)							NP	NP	8.7491E+01	2.3384		

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number AL2640090005	2. Page 1 of 1	3. Emergency Response Phone 865-220-1553		4. Manifest Tracking Number 002226727 JJK		
		5. Generator's Name and Mailing Address TVA Power Services Center PO #1010, PSC IE-M Muscle Shoals, AL 35662			Generator's Site Address (if different than mailing address) 283 Materials Drive Muscle Shoals, AL 35661			
Generator's Phone: 256-314-7872		6. Transporter 1 Company Name HITMAN Transport Services			U.S. EPA ID Number TNR000024686			
7. Transporter 2 Company Name		U.S. EPA ID Number						
8. Designated Facility Name and Site Address Energy Solutions 1560 Bear Creek Road Oak Ridge TN 37830		U.S. EPA ID Number			TND982157570			
Facility's Phone: 865-220-1526								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	X	1. UN2910, Waste Radioactive Material, excepted package - limited quantity of material, 7, RQ (D00P)		11 0M		1240	P	D008
		2.						
		3.						
		4.						
14. Special Handling Instructions and Additional Information ERG#141 * See attached NRC manifest for additional information. TVA RLS#2005997 PO#550903 Contract#69885								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offeror's Printed/Typed Name Stacey S. McCluskey				Signature 		Month Day Year 16 12 13		
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name Chris Dutton		Signature 		Month Day Year 06 12 13			
Transporter 2 Printed/Typed Name		Signature		Month Day Year				
DESIGNATED FACILITY	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	18b. Alternate Facility (or Generator)				Manifest Reference Number: _____ U.S. EPA ID Number _____			
	Facility's Phone: _____				18c. Signature of Alternate Facility (or Generator)			
	Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H141		2.		3.		4.		
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a								
Printed/Typed Name Ron Mitchell				Signature 		Month Day Year 06 13 13		

**UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPIC SUMMARY**

For Manifest # 2764-01

Energy Solutions / Bear Creek Operations

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
C-14	2.7702E+00	7.4870E-02	7.4870E-05	.0000E+00	.0000E+00
CE-144	1.4833E-01	4.0090E-03	4.0090E-06	.0000E+00	.0000E+00
CO-57	6.3640E-03	1.7200E-04	1.7200E-07	.0000E+00	.0000E+00
CO-58	2.1079E+00	5.6970E-02	5.6970E-05	.0000E+00	.0000E+00
CO-60	8.2658E+00	2.2340E-01	2.2340E-04	.0000E+00	.0000E+00
CR-51	6.7710E-01	1.8300E-02	1.8300E-05	.0000E+00	.0000E+00
CS-137	2.9870E-01	8.0730E-03	8.0730E-06	.0000E+00	.0000E+00
FE-55	6.1054E+01	1.6501E+00	1.6501E-03	.0000E+00	.0000E+00
FE-59	3.0340E-01	8.2000E-03	8.2000E-06	.0000E+00	.0000E+00
MN-54	5.4053E+00	1.4609E-01	1.4609E-04	.0000E+00	.0000E+00
NB-95	4.9488E-01	1.3375E-02	1.3375E-05	.0000E+00	.0000E+00
NI-63	4.1892E+00	1.1322E-01	1.1322E-04	.0000E+00	.0000E+00
ZN-65	1.6891E+00	4.5651E-02	4.5651E-05	.0000E+00	.0000E+00
ZR-95	8.0660E-02	2.1800E-03	2.1800E-06	.0000E+00	.0000E+00
Totals:	8.7491E+01	2.3646E+00	2.3646E-03	.0000E+00	.0000E+00



Thursday, June 13, 2013

Jim Colagross
TVA Environmental Research Center/AL
P.O. Box 1010 Research Reactor
Western Area Radiological Lab
Muscle Shoals, AL 35662-1010

Dear Mr. Colagross:

The attached signed shipping manifest copies are your notice of receipt of the radioactive waste materials shipment specified on the manifest number below.

<u>Manifest Number</u>	<u>Date Received</u>
2764-2764-01	06/13/2013

Thank you for your business.

Sincerely,

Shipping and Receiving

cc: Manifest File
Shipping and Receiving file



September 03, 2013

Mr. Jim Colagross
TVA Environmental Research Center/AL
Western Area Radiological Lab
P.O. Box 1010 Research Reactor
Muscle Shoals, AL 35662-1010

Dear Mr. Colagross:

Subject: Manifest Closure Letter

This letter certifies that EnergySolutions has completed processing and/or shipment of all the radioactive materials shipped to EnergySolutions on the following manifest(s) sent by TVA Environmental Research Center/AL.

Manifest Number	Close Date
2764-01	08/29/13

Should you have any questions concerning the processing of the waste, please refer to your monthly Customer Summary Report. Please contact your Account Executive if further data is required.

EnergySolutions Tracking Systems

To: Jim Colagross