FFCO
ENTERED

Los Alamos
NATIONAL LABORATORY
EST. 1943

Environmental Protection Division
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

National Nuclear Security Administration
Los Alamos Site Office, MS A316
528 35th Street
Los Alamos, New Mexico 87544
(505) 667-7203/FAX (505) 665-4504

Date: March 20, 2008
Refer To: ENV-RCRA-08-062

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Ms. Rebecca Kay
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Dear Ms. Kay:

SUBJECT: CORRECTION ON THE ENV-RCRA: 07-013 JULY 25, 2007, NOTICE OF COMPLETION OF OFF-SITE WASTE SHIPMENT ACTIVITIES IN THE COMPLIANCE PLAN VOLUME (CPV), SITE TREATMENT PLAN (STP), LOS ALAMOS NATIONAL LABORATORY (LANL)

As directed by the letter dated March 12, 2008, from John Kieling of the New Mexico Environment Department's (NMED) Hazardous Waste Bureau, this letter is submitted as a correction to letter ENV-RCRA: 07-013, dated January 19, 2007. As Mr. Kieling requested, the entire text of letter ENV-RCRA: 07-013 is restated with the corrected mixed waste identification number. The corrected text of the entire letter follows.

Corrected Letter Text

The purpose of this letter is to notify the New Mexico Environment Department (NMED) of completion of required activities set forth in the Federal Facility Compliance Order (FFCO). Activity 3.2 (K) in the CPV requires that "(w)ithin 45 days of receipt of waste at treatment facility or within 45 days after completion of parallel option" the Department of Energy (DOE) and the University of California (UC), "provide documentation to NMED that waste was received at off-site facility or provide notification of parallel option."

A shipment that included STP covered waste was initiated on December 18, 2006, and completed on December 19, 2006. The waste was sent to Energy Solutions in Utah. The volume of STP waste shipped is described in the following table:

30669

STP Section	MWIR Waste ID	Treatability Group	Manifest Number	Container Number	Volume Shipped (m3)
3.2	**LA-W924**	***Lead Wastes***	**000363641 JJK**	**C06187186**	**0.0189**
				C06187187	**0.2082**
Total STP Volume Shipped					0.2271

Documentation that waste was received at the aforementioned facility is provided in Enclosure A. Also included as Enclosure B is a Certification Statement prepared in accordance with the requirements of Section XX, "*Documents, Information, and Reporting Requirements*," of the FFCO.

Please contact Albert Dye at (505) 667-4715 or by email at dyea@lanl.gov if you have any questions.

Sincerely,

Albert Dye
STP Project Manager
Water Quality & RCRA Group
Los Alamos National Laboratory

Sincerely,

Gene Turner
Environmental Operations
Los Alamos Site Office

AD:GT/lm

Enclosure: a/s

Cy: James Bearzi, NMED/HWB, Santa Fe, NM, w/enc.
Michael B. Mallory, PADOPS, w/o enc., A102
Richard S. Watkins, ADESHQ, w/o enc., K491
Tori George, ENV-DO, J978
Gerald O'Leary, WDP-DO, w/o enc., J591
Paul Newberry, WDP-HMWO, w/o enc., J595
Chris Duy, WDP-HMWO, w/o enc., J595
Ellen Louderbough, LC-LESH, w/o enc., A187
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150

ENCLOSURE A

DOCUMENTATION THAT WASTE WAS RECEIVED AT OFF-SITE FACILITY
ACTIVITY 3.2(K)
SITE TREATMENT PLAN (STP)
LOS ALAMOS NATIONAL LABORATORY (LANL)

Please print or type (Form designed for use on elite (12-pitch) typewriter) 60671 Form Approved OMB No 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator ID Number: NM0890010515
2 Page 1 of: 2
3 Emergency Response Phone: (505)667-6211
4. Manifest Tracking Number: 000363641 JJK

5 Generator's Name and Mailing Address: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545
Generator's Phone: (505) 665-6158

Generator's Site Address (if different than mailing address):
LANS, LLC for US DOE
Mesita Del Buey Rd. TA-54
Los Alamos, NM 87545

6 Transporter 1 Company Name: M.P. ENVIRONMENTAL SERVICES, INC.
US EPA ID Number: CAT000624247

7 Transporter 2 Company Name:
US EPA ID Number:

8 Designated Facility Name and Site Address: Energy Solutions LLC
Interstate 80, Exit 49
Clive, UT 84029
Facility's Phone: (435) 884-0155
US EPA ID Number: UTD982598898

9a HM	9b U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10 Containers No	10 Containers Type	11 Total Quantity	12 Unit Wt/Vol	13 Waste Codes		
RQ	1RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, UN3321, SOLID ELEMENTAL, AM241 PU238 PU239, 3.69e-03 TBq	1	CM	3362	K			
X	2WASTE RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, UN2910, AM241, 8.58e-07 TBq	1	DM	9	K	D003		
X	3WASTE RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, UN2910, FISSILE EXCEPTED, AM241 CS137 PU238 PU239 U235 U238, 6.36e-08 TBq	1	DM	2	K	D008	D011	
X	4WASTE RADIOACTIVE MATERIAL, EXCEPTED PACKAGE-LIMITED QUANTITY OF MATERIAL, 7, UN2910, FISSILE EXCEPTED, AM241 PU238 PU239 U235 U238, 4.77e-08 TBq	1	DM	5	K	D006	D008	

14 Special Handling Instructions and Additional Information
LINE 1 ERG#: 162; LINE 2 ERG#: 161; HMTF #: 06120501 LINE 3 ERG#: 161; MANIFEST: 60671 LINE 4 ERG#: 161;
EXCLUSIVE USE SHIPMENT
9328-01-M09979

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: Paul N. Nelson
Signature:
Month 12 Day 18 Year 06

16 International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.

17 Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Richard E. Wamsley
Signature:
Month 12 Day 18 Year 06
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18 Discrepancy
18a Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b Alternate Facility (or Generator)
US 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. H111 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: Ryan Fotheringham
Signature:
Month 12 Day 19 Year 06

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type (Form designed for use on elite (12-pitch) typewriter) 60671 Form Approved OMB No 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator ID Number: NM0890010515

22 Page: 2

23 Manifest Tracking Number:

24 Generator's Name: LANS, LLC for US DOE
P.O. Box 1663, MS J595
Los Alamos, NM 87545

25 Transporter _____ Company Name — U.S. EPA ID Number

26 Transporter _____ Company Name — U.S. EPA ID Number

27a HM	27b U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28 Containers No	28 Containers Type	29 Total Quantity	30 Unit Wt./Vol.	31 Waste Codes		
X	WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, UN3321, SOLID ELEMENTAL, AM241 PU238 PU239 U235 U238, 6.56e-07 TBq	1	DM	5	K	D006		
X	WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, UN3321, SOLID ELEMENTAL, AM241 CO60 CS137 PU238 PU239 U235 U238, 1.38e-04 TBq	1	DM	312	K	D006	D008	
X	WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II) FISSILE-EXCEPTED, 7, UN3321, SOLID ELEMENTAL, AM241 PU238 PU239 U235 U238, 9.94e-06 TBq	1	DM	59	K	D008		
X	NON-REGULATED WASTE, SOLID, 77	1	CM	3362	K			
X	HAZARDOUS WASTE, SOLID, N.O.S., (CONTAINS CADMIUM, LEAD), 9, NA3077, III	1	DM	6	K	D006	D008	
X	HAZARDOUS WASTE, SOLID, N.O.S., (CONTAINS LEAD, SILVER), 9, NA3077, III	1	DM	40	K	D008	D011	
X	HAZARDOUS WASTE, SOLID, N.O.S., (CONTAINS LEAD), 9, NA3077, III	1	DM	239	K	D008		
X	HAZARDOUS WASTE, SOLID, N.O.S., (CONTAINS CADMIUM & LEAD), 9, NA3077, III	2	DF	48	K	D006	D008	
X	HAZARDOUS WASTE, SOLID, N.O.S., (CONTAINS CADMIUM, LEAD), 9, NA3077, III	1	DF	28	K	D006	D008	

32 Special Handling Instructions and Additional Information

LINE 1 ERG#: 162; LINE 2 ERG#: 162; LINE 3 ERG#: 162; LINE 4 ERG#: ;
LINE 5 ERG#: 171; LINE 6 ERG#: 171; LINE 7 ERG#: 171; LINE 8 ERG#: 171;
LINE 9 ERG#: 171;

WASTE #: 06120501 MANIFEST: 60671

GENERATOR

33 Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34 Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

TRANSPORTER

35 Discrepancy

DESIGNATED FACILITY

36 Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H111

EPA Form 8700-22A (Rev 3-05) Previous editions are obsolete

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

FORM 541

EnergySolutions, LLC

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

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	Total
14	m3 2 0515 ft3 72 4472	kg 7471.5129 ton 8 2360	NP	2 9756E-01 5 Containers	3 6544E-02 5 Containers	3 3411E-01

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	~~2 4548E+02~~ 614.0754+00	9 5460E+01	NP	NP	NP	(kg)	1 8310E+00
mCi	~~0 6266E+00~~ 16.286 E+00	2 5800E+00	NP	NP	NP	(tons)	2 0183E-03

2 MANIFEST NUMBER 60671 ESI Dec

3 PAGE 1 **OF** 4 **PAGE(S)**

4 SHIPPER NAME DOE / LANL

SHIPMENT ID NUMBER NA

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5 CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6 CONTAINER DESCRIPTION (See Note 1 & Note 1A)	7 VOLUME (m3) (ft3)	8 WASTE AND CONTAINER WEIGHT (kg) (ton)	9 SURFACE RADIATION LEVEL (mSv/hr) (mrem/hr)	10 SURFACE CONTAMINATION (MBq/100 cm2) (dpm/100cm2) ALPHA	BETA-GAMMA	11 WASTE DESCRIPTOR (See Note 2 & Note 2A)	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13 SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14 CHEMICAL DESCRIPTION: CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0 1%	15 RADIOLOGICAL DESCRIPTION: RADIONUCLIDES	pCi/gm	MBq	mCi	16 WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
C06183880/NM0890010515	3						28-HJ		100	OXIDE/NP	NP					
		0 0030	27.2287	<2 0000E-03	<3 3400E-07	<1 6700E-06		0 0030				H-3	1 76338E+04	1.7760E+01	4.8000E-01	AU
												Subtotal		1 7760E+01	4.8000E-01	
		1 8711	0 0300	<2 0000E-01	<2 0000E+01	<1 0000E+02		1 8711				Total		1 7760E+01	4 8000E-01	
C06184441/NM0890010515	4						28-HJ		100	OXIDE/NP	NP					
		0.2001	230 6345	<2 0000E-03	<3 3400E-07	<1 6700E-06		0 0057				H-3	4.60958E+03	4 0700E+01	1 1000E+00	AU
												Subtotal		4.0700E+01	1.1000E+00	
		7 3507	0 2630	<2 0000E-01	<2 0000E+01	<1 0000E+02		0.2000				Total		4.0700E+01	1.1000E+00	
C06184653/NM0890010515	4						28-HJ		100	Elemental/NP	NP					
		0 2081	311 2229	<2 0000E-03	<3 3400E-07	<1 6700E-06		0 1832				Am-241	1 99858E+03	2 3014E+01	6 2200E-01	AU
												Co-60	1 99858E+03	2 3014E+01	6 2200E-01	
												Cs-137	1 99858E+03	2 3014E+01	6 2200E-01	
												Pu-238 [3 6588E-05 g]	1 99858E+03	2 3014E+01	6 2200E-01	
												Pu-239 [1 0032E-02 g]	1 99858E+03	2 3014E+01	6 2200E-01	
		7.3507	0.3431	<2 0000E-01	<2 0000E+01	<1 0000E+02		6 6824				U-235 [2 8273E-01 g]	1.99858E+00	2 3014E-02	6 2200E-04	
												U-238 [1 8294E+00 kg]	1.99858E+03	2.3014E+01	6 2200E-01	
												Subtotal		1 3811E+02	3 7326E+00	
												Total		1 3811E+02	3 7326E+00	
												SNM [2 9280E-01 g] Source [1 8294E+00 kg]				
C06185182/NM0890010515	4						28-HJ		100	OXIDE/NP	NP					
		0 1962	31 7515	<2 0000E-03	<3 3400E-07	<1 6700E-06		0 0199				Am-241	2 59315E+03	8 5751E-01	2 3176E-02	AU
												Subtotal		8.5751E-01	2 3176E-02	
		7 0000	0 0350	<2 0000E-01	<2 0000E+01	<1 0000E+02		0 7036				Total		8.5751E-01	2 3176E-02	

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

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 Polyethlene Tank or Liner
8 Fiberglass Tank or Liner
9 Demineralizer
10 Gas Cylinder
11 Bulk Unpackaged Waste
12 Unpackaged Components
13 High Integrity Container
19 Other Describe in Item 6 or additional page

Note 1A. Bulk Packaging Description Codes (Choose one code as may be applicable)

A Gondola
B Intermodal
C End Dump
D Roll-off
E Seawan

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

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 Glassware or Labware
36 Sealed Source/Device
37 Paint or Plating
38 Evaporator Bottoms/Sludges/ Concentrates
39 Compactible Trash
40 Noncompactible Trash
41 Animal Carcass
42 Biological Material (except animal carcass)
43 Activated Material
59 Other Describe in item 11 or additional page

NOTE 2A Specific Waste Descriptions (Choose all applicable codes)

G Dewatered
H Solid
I Combustible
J Non-combustible
K Air Filtration Filters
L Asbestos

Note3 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 13 Code 100=NONE REQUIRED

Solidification
90 Cement
91 Concrete (encapsulation)
92 Bitumen
93 Vinyl Chloride
94 Vinyl Ester Styrene
99 Other Describe in item 13, or additional page
100 None Required

FORM 541 (03-08)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 68671 ESI Dec

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
5 CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6 CONTAINER DESCRIPTION (See Note 1 & Note 1A)	7 VOLUME (m3)/(ft3)	8 WASTE AND CONTAINER WEIGHT (kg)/(ton)	9 SURFACE RADIATION LEVEL (mSv/hr)/(mrem/hr)	10 SURFACE CONTAMINATION (MBq/100 cm2)/(dpm/100cm2) ALPHA	BETA-GAMMA	PHYSICAL DESCRIPTION 11 WASTE DESCRIPTOR (See Note 2 & Note 2A)	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)/(FT3)	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 (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT: RADIONUCLIDES	pCi/gm	MBq	mCi	16 WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
C06185194/NM0890010516	4	0.3115	40.8238	<2.0000E-03	<3.3400E-07	<1.6700E-06	28-HJ	0.0070	100	OXIDE/NP	NP	Am-241	2.46144E+01	1.0820E-03	2.9243E-06	AU
												Cs-137	1.92754E+00	8.4730E-05	2.2900E-06	
												Pu-238 [6.5882E-08 g]	9.42727E+02	4.1440E-02	1.1200E-03	
		11.0000	0.0458	<2.0000E-01	<2.0000E+01	<1.0000E+02		0.2673				Pu-239 [9.1129E-06 g]	4.75572E+02	2.0905E-02	5.6500E-04	
												U-235 [2.2000E-04 g]	4.07393E-01	1.7908E-05	4.8400E-07	
												U-238 [4.5588E-06 kg]	1.30467E+00	5.7350E-05	1.5500E-06	
												Subtotal		6.3587E-02	1.7186E-03	
												Total		6.3587E-02	1.7186E-03	
												SNM [2.2918E-04 g]				
												Source [4.5588E-06 kg]				
C06185787/NM0890010516	4	0.1982	27.2156	<2.0000E-03	<3.3400E-07	<1.6700E-06	28-HJ	0.0081	100	OXIDE/NP	NP	Am-241	3.58723E-02	6.5860E-06	1.7800E-07	AU
												Pu-238 [3.2941E-08 g]	1.12857E+02	2.0720E-02	5.6000E-04	
												Pu-239 [1.1387E-05 g]	1.42280E+02	2.6122E-02	7.0600E-04	
		7.0000	0.0300	<2.0000E-01	<2.0000E+01	<1.0000E+02		0.2850				U-235 [9.7213E-03 g]	4.31012E+00	7.9132E-04	2.1387E-05	
												U-238 [2.2853E-06 kg]	1.56589E-01	2.8749E-05	7.7700E-07	
												Subtotal		4.7669E-02	1.2883E-03	
												Total		4.7669E-02	1.2883E-03	
												SNM [9.7327E-03 g]				
												Source [2.2853E-06 kg]				
C06186183/NM0890010515	4	0.2801	39.0153	<2.0000E-03	<3.3400E-07	<1.6700E-06	28-HJ	0.1195	100	OXIDE/NP	NP	Be-7	8.45805E+00	1.2210E-02	3.3000E-04	AU
												Mn-54	4.86979E-01	7.0300E-04	1.9000E-05	
												Na-22	8.89377E-01	1.2839E-03	3.4700E-05	
		7.3597	0.0430	<2.0000E-01	<2.0000E+01	<1.0000E+02		4.0000				Nb-95	8.22738E-01	1.1877E-03	3.2100E-05	
												Os-185	3.20381E+00	4.6250E-03	1.2500E-04	
												Subtotal		2.0010E-02	5.4080E-04	
												Total		2.0010E-02	5.4080E-04	
C06186601/NM0890010516	3	0.0530	22.0038	<2.0000E-03	<3.3400E-07	<1.6700E-06	28-HJ	0.0530	100	OXIDE/NP	NP	H-3	2.27235E+04	1.8500E+01	5.0000E-01	AU
												Subtotal		1.8500E+01	5.0000E-01	
		1.8711	0.0243	<2.0000E-01	<2.0000E+01	<1.0000E+02		1.8711				Total		1.8500E+01	5.0000E-01	
C06186882/NM0890010515	3	0.0530	26.0045	<2.0000E-03	<3.3400E-07	<1.6700E-06	28-HJ	0.0530	100	OXIDE/NP	NP	H-3	1.92276E+04	1.8500E+01	5.0000E-01	AU
												Subtotal		1.8500E+01	5.0000E-01	
		1.8711	0.0287	<2.0000E-01	<2.0000E+01	<1.0000E+02		1.8711				Total		1.8500E+01	5.0000E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 60671 ESI Dec

3 PAGE 3 OF 4 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			CHEMICAL DESCRIPTION		RADIOLOGICAL DESCRIPTION				
5 CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6 CONTAINER DESCRIPTION (See Note 1 & Note 1A)	7 VOLUME (m3)/(ft3)	8 WASTE AND CONTAINER WEIGHT (kg)/(lbs)	9 SURFACE RADIATION LEVEL (mSv/hr) (mrem/hr)	10 SURFACE CONTAMINATION (MBq/100 cm2)/(dpm/100cm2) ALPHA	BETA-GAMMA	11 WASTE DESCRIPTOR (See Note 2 & Note 2A)	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)/(FT3)	13 SOLIDIFICATION OR 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: RADIONUCLIDES	pCi/gm	MBq	mCi	16 WASTE CLASSIFICATION A/S-Class A Stable AU-Class A Unstable B-Class B C-Class C
C06186603/NM0890010515	4	0 1135	5 4442	<2 0000E-03	<3 3400E-07	<1 6700E-06	28-HJ	0 0188	100	OXIDE/NP	NP	Co-58	2 93895E+00	5 9200E-04	1.6000E-05	AU
		4 0095	0 0089	<2 0000E-01	<2 0000E+01	<1 0000E+02		0 6682				Co-60	5 51053E+01	1 1100E-02	3.0000E-04	
												Cs-134	1 83684E+00	3 7000E-04	1.0000E-05	
												Mn-54	3 30632E+01	6 6600E-03	1.8000E-04	
												Sb-124	1 10211E+00	2 2200E-04	6.0000E-06	
												Zn-65	7.89843E+00	1 5910E-03	4.3000E-05	
												Subtotal		2.0535E-02	5 5500E-04	
												Total		2 0535E-02	5 5500E-04	
C06187186/NM0890010515	4	0 1135	4.4308	<2 0000E-03	<3 3400E-07	<1 6700E-06	28-HJ	0 0188	100	Elemental/NP	NP	Am-241	1 03368E+00	1.6946E-04	4 5800E-06	AU
												Pu-238 [5 1235E-07 g]	1 96580E+03	3 2227E-01	8 7100E-03	
												Pu-239 [1 4436E-04 g]	2 01997E+03	3 3115E-01	8 9500E-03	
		4 0095	0 0849	<2 0000E-01	<2 0000E+01	<1 0000E+02		0 6682				U-235 [3 9546E-04 g]	1 96355E-01	3 2190E-05	8 7000E-07	
												U-238 [1.6471E-04 kg]	1 26389E+01	2 0720E-03	5 6000E-05	
												Subtotal		6 5569E-01	1 7721E-02	
												Total		6 5569E-01	1 7721E-02	
												SNM [5.4032E-04 g]				
												Source [1 6471E-04 kg]				
C06187187/NM0890010515	4	0.2081	58 8181	<2 0000E-03	<3 3400E-07	<1 6700E-06	28-HJ	0 2081	100	Elemental/NP	NP	Am-241	3 63885E+00	7 9180E-03	2 1400E-04	AU
												Pu-238 [8 7059E-05 g]	2 51659E+03	5 4760E+00	1.4800E-01	
												Pu-239 [1 9355E-03 g]	2.04048E+03	4.4400E+00	1 2000E-01	
		7 3587	0 0848	<2 0000E-01	<2 0000E+01	<1 0000E+02		7.3587				U-235 [4 5000E-03 g]	1.68339E-01	3 6630E-04	9 9000E-06	
												U-238 [1 3912E-03 kg]	8 04288E+00	1 7501E-02	4.7300E-04	
												Subtotal		9 9418E+00	2 6870E-01	
												Total		9 9418E+00	2 6870E-01	
												SNM [6 4442E-03 g]				
												Source [1.3912E-03 kg]				
L06188237/NM0890010515	2	1 3025	3361 7516	<2 0000E-03	<3 3400E-07	<1 6700E-06	28-HJ	0 6513	100	Elemental/NP	NP	Am-241	7.82334E+02	(9.7310E+01)	(2.6300E+00)	AU
												Pu-238 [3 5588E-03 g]	1.79967E+03	(2.2385E+02)	(6.0500E+00)	
												Pu-239 [2.0807E-02 g]	3 83731E+02	(4 7730E+01)	(1 2900E+00)	
		45 9990	3 7057	<2 0000E-01	<2 0000E+01	<1 0000E+02		22 9995				Subtotal		~~0.0000E+00~~ AJF 12/19/06	~~0.0000E+00~~ AJF 12/19/06	
												Total		~~0.0000E+00~~ AJF 12/19/06	~~0.0000E+00~~ 3.6889E+02 AJF 12/19/06	9.9700E+00
												SNM [2 4365E-02 g]				
L06188238/NM0890010515	2	1 3025	3361 7516	<2 0000E-03	<3.3400E-07	<1 6700E-06	28-HJ	0 6513	100	OXIDE/NP	NP	Co-60	4 67021E-02	5 8090E-03	1 5700E-04	AU
												Cs-137	2.23099E-02	2 7750E-03	7 5000E-05	
		45 9990	3 7057	<2 0000E-01	<2 0000E+01	<1 0000E+02		22 9995				Subtotal		8 5840E-03	2 3200E-04	
												Total		8 5840E-03	2 3200E-04	

FORM 541A (03-06)

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FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER
50671 ESI Doc

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				16 WASTE CLASSIFICATION A5-Class A Stable A1J-Class A Unstable B-Class B C-Class C
5 CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6 CONTAINER DESCRIPTION (See Note 1 & Note 1A)	7 VOLUME (m3) (ft3)	8 WASTE AND CONTAINER WEIGHT (kg) (lon)	9 SURFACE RADIATION LEVEL (mSv/hr) (mrem/hr)	10 SURFACE CONTAMINATION (MBq/100 cm2) (dpm/100cm2)		11 WASTE DESCRIPTOR (See Note 2 & Note 2A)	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3) (FT3)	13 SOLIDIFICATION OR 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				
					ALPHA	BETA-GAMMA						RADIONUCLIDES	pCi/gm	MBq	mCi	
Shipment Totals		4.5913	7556 6619									SNM [3 3411E-01 g] Source [1 8310E+00 kg]		2 4518E+02	6 6266E+00	
		160 0331	8 3292													

FORM 541A (03-06)

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): (505)667-6211

ORGANIZATION: EM&R

2 IS THIS AN "EXCLUSIVE USE" SHIPMENT? ☑ YES ☐ NO

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 14

4 DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? ☑ YES ☐ NO
If "Yes," provide Manifest Number ==>

EPA MANIFEST NUMBER: 60671

5 SHIPPER – NAME AND FACILITY
DOE / LANL by Cavenagh Services Group
PO Box 1663
MS J595 (Chris Day)
Los Alamos, NM 87545

Utah Generator Site Access Permit No: 0501-003-157

SHIPMENT NUMBER: 9328-01-0002

CONTACT: Chris Day

6 CARRIER – Name and Address
M P Environmental Services, Inc
2630 S 16th Ave
Phoenix, AZ 85007

CONTACT: MYRON KURPIUS

SIGNATURE – Authorized carrier acknowledging waste receipt

SHIPPER ID NUMBER: NA

☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify) 0

TELEPHONE NUMBER (Include Area Code): 505-667-5854

EPA ID NUMBER: CAT000624347

SHIPPING DATE: 12/18/2006

TELEPHONE (Include Area Code): (800)833-7892

DATE: 12-18-06

7 FORM 540 AND 540A — PAGE 1 OF 2 PAGE(S)
FORM 541 AND 541A — 4 PAGE(S)
FORM 542 AND 542A — None PAGE(S)
ADDITIONAL INFORMATION — None PAGE(S)

8 MANIFEST NUMBER (Use this number on all continuation pages): 9328-01
60671 ESI Dec

9 CONSIGNEE - Name and Facility
EnergySolutions, LLC
Clive Disposal Site (Treatment Facility)
Interstate 80, Exit 49
Clive, UT 84029
M09979

CONTACT: Shipping and Receiving

TELEPHONE (Include Area Code): (435)884-0155

SIGNATURE – Authorized consignee acknowledging waste receipt: Myron Kotherinham

DATE: 12/19/2006

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 deposit as described in accordance with the requirements of 10 CFR Parts 20 and 61 or equivalent state regulations

AUTHORIZED SIGNATURE: [signature] TITLE: WSM DATE: 12/15/06

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
Hazardous Waste, Solid, N O S , 9, NA3077, PGIII (Contains Cadmium, Lead)	NA	NA	Solid OXIDE	H-3				1 7760E+01	4 8000E-01	NA	60 0113 LBS, 1 8711 FT3	C06183880
Hazardous Waste, Solid, N O.S , 9, NA3077, PGIII (Contains Lead)	NA	NA	Solid OXIDE	H-3				4.0700E+01	1.1000E+00	NA	526 0989 LBS, 7 3507 FT3	C06184441
Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Excepted, 7, UN3321 , AM241, CO60, CS137, PU238, PU239, U235, U238, 1 38107E-04 TBq	NA	NA	Solid Elemental	Am-241	Co-60	Cs-137	Pu-238	1 3811E+02	3 7326E+00	LSA-II	686 1290 LBS, 7 3507 FT3	C06184653
				Pu-239	U-235	U-238						
Waste Radioactive Material, Excepted Package-Limited Quantity Of Material, 7, UN2910 , AM241, 8 57512E-07 TBq	NA	NA	S OXIDE	Am-241				8 5751E-01	2 3176E-02	NA	70 LBS, 7 FT3	C06185182
Waste Radioactive Material, Excepted Package-Limited Quantity Of Material, 7, UN2910 Fissile Excepted, AM241, CS137, PU238, PU239, U235, U238, 6 35870E-08 TBq	NA	NA	S OXIDE	Am-241	Cs-137	Pu-238	Pu-239	6 3587E-02	1 7186E-03	NA	90 LBS, 11 FT3	C06185194
				U-235	U-238							
Waste Radioactive Material, Excepted Package-Limited Quantity Of Material, 7, UN2910 Fissile Excepted, AM241, PU238, PU239, U235, U238, 4.76687E-08 TBq	NA	NA	S OXIDE	Am-241	Pu-238	Pu-239	U-235	4.7669E-02	1 2883E-03	NA	60 LBS, 7 FT3	C06185787
				U-238								

FOR CONSIGNEE USE ONLY

____ Record Waste Description Inadequate
____ Contamination or Leakage Detected
____ Unexpected Exposure Rates Detected
____ Labels, Markings, etc Inadequate
____ Container Integrity Inadequate
____ Other
☑ No Violations Detected on this Shipment

20 TERMS AND CONDITIONS

A HAZARDOUS MATERIALS Generator represents & warrants that Waste Material ✓ is (or) __ is not a hazardous waste as defined in 40 CFR 261 Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate land-disposal restriction notice and/or certification as required by 40 CFR 268 1

B TITLE Upon acceptance at the disposal site by EnergySolutions LLC, and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall thereupon transfer from Generator and be vested in EnergySolutions LLC

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 EnergySolutions LLC's facility license

D INDEMNIFICATION Generator agrees to indemnify EnergySolutions, LLC, 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 540 (03-06)

FORM 540A

EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8 MANIFEST NUMBER
(Use this number on all continuation pages)
60671 ESI Dec

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
Hazardous Waste, Solid, N O S , 9, NA3077, PGIII (Contains Lead, Silver)	NA	NA	Solid OXIDE	Be-7	Mn-54	Na-22	Nb-95	2 0010E-02	5 4080E-04	NA	86 0162 LBS, 7 3507 FT3	C06186183
				Os-185								
Hazardous Waste, Solid, N.O.S , 9, NA3077, PGIII (Contains Cadmium & Lead)	NA	NA	Solid OXIDE	H-3				1.8500E+01	5 0000E-01	NA	48 5100 LBS, 1.8711 FT3	C06186601
Hazardous Waste, Solid, N O S , 9, NA3077, PGIII (Contains Cadmium & Lead)	NA	NA	Solid OXIDE	H-3				1.8500E+01	5 0000E-01	NA	57 3300 LBS, 1 8711 FT3	C06186602
Hazardous Waste, Solid, N O.S., 9, NA3077, PGIII (Contains Cadmium, Lead)	NA	NA	Solid OXIDE	Co-58	Co-60	Cs-134	Mn-54	2 0535E-02	5 5500E-04	NA	12 0023 LBS, 4 0095 FT3	C06186603
				Sb-124	Zn-65							
Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Excepted, 7, UN3321 , AM241, PU238, PU239, U235, U238, 6 55694E-07 TBq	NA	NA	Solid Elemental	Am-241	Pu-238	Pu-239	U-235	6.5569E-01	1 7721E-02	LSA-II	9 7682 LBS; 4 0095 FT3	C06187186
				U-238								
Waste Radioactive Material, Low Specific Activity (LSA-II) Fissile-Excepted, 7, UN3321 , AM241, PU238, PU239, U235, U238, 9 94179E-06 TBq	NA	NA	Solid Elemental	Am-241	Pu-238	Pu-239	U-235	9 9418E+00	2 6870E-01	LSA-II	129.6540 LBS, 7 3507 FT3	C06187187
				U-238								
Radioactive Material, Low Specific Activity (LSA-II) Fissile-Excepted, 7, UN3321 , AM241, PU238, PU239, 3 68890E-03 TBq	NA	NA	S Elemental	Am-241	Pu-238	Pu-239		3 6889E+02	9 9700E+00	LSA-II	7411.3931 LBS, 45 999 FT3	L06188237
Non-regulated solid	NA	NA	Solid OXIDE	Co-60	Cs-137			8 5840E-03	2 3200E-04	NA	7411 3931 LBS; 45 9990 FT3	L06188238

FORM 540A (03-08)

ENCLOSURE B
CERTIFICATION

NOTICE OF COMPLETION OF OFFSITE WASTE SHIPMENTS
ACTIVITY 3.2(K)
SITE TREATMENT PLAN (STP)
LOS ALAMOS NATIONAL LABORATORY (LANL)

I certify that I am the project manager responsible for overseeing the implementation of the Site Treatment Plan for the Los Alamos National Laboratory. To the best of my knowledge and belief, the information in this document is true, accurate, and complete.

Albert Dye

Albert Dye
STP Project Manager
Water Quality & RCRA
Los Alamos National Laboratory
Operator

3/16/08
Date Signed