EnergySolutions

CERTIFICATE OF DISPOSAL

GTE Operations Support Inc., Irving

This Certificate acknowledges that the following manifested shipments:

Shipment	Disposal Location	Date	Shipment	Disposal Location	Date
0840-01-0987	Class A	12/19/06 13:09:06			

Representing 1,520.00 cubic feet of waste has been disposed of at the above listed Disposal Facility. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Brent Anderson

Brent Anderson
Director of LLRW Operations

12/20/06
Date

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

212637

EnergySolutions

CERTIFICATE OF DISPOSAL

GTE Operations Support Inc., Irving

This Certificate acknowledges that the following manifested shipments:

Shipment	Disposal Location	Date	Shipment	Disposal Location	Date
0840-01-0988	Class A	12/11/06 09:38:40			

Representing 1,520.00 cubic feet of waste has been disposed of at the above listed Disposal Facility. Disposal is subject to EnergySolutions' Radioactive Material License, all other applicable licenses, permits and regulations, and the Disposal Agreement.

Brent Anderson
Director of LLRW Operations

12/19/06
Date

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

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: NYD002036515
2. Page 1 of 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 002825515 JJK

5. Generator's Name and Mailing Address
GTE Operations Support Incorporated
ONE Verizon Way VC34W453, Basking Ridge, NJ 07920
Generator's Phone: 908-559-3687

Generator's Site Address (if different than mailing address)
GTE Operation Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

6. Transporter 1 Company Name
Priority Transport Services Truck #38 Trail #014235
U.S. EPA ID Number: NYR000104976

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Energy Solutions
Clive Disposal Site Interstate 80, Exit 49
Facility's Phone: 435-884-0155 Clive, UT 84029
U.S. 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		
X	1. Waste, Methanol, 3, UN1230, PG II (Containing Radionuclides, DOT NON Regulated)	7	DM	710	P	D001	F003	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ERG Book Guide # 131 & 161
Rg 226, 227 & 286 & 287
0840-07-M09964
Emergency 24 Hr # ChemTrec 800-424-9300
Soil/Methanol
Ac 227, Pa 231, Ra 223, Ra 226, Ra 228, Th 227, Th 228, Th 230, Th 232, U 234, U Nat, Total Alt, Total Alp 2.0265E-0
Container # 9240, 9241, 9242, 9243, 9244, 9245, 9246

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. 0840-07-001

Generator's/Offeror's Printed/Typed Name: Robert Miller
Signature:
Month 12 Day 4 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: Julio Garcia R
Signature:
Month 12 Day 4 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) 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. L-H132 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 08 Year 06

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

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

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

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

NON-HAZARDOUS WASTE

GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. not required	Manifest Document No. 9346-1	2. Page 1 of 1
3. Generator's Name and Mailing Address GTE/GSI Verizon Center One Verizon Way, Basking Ridge, NJ 07920		100 Carriage Rock Road Hicksville, NY 11801	
4. Generator's Phone ( )			
5. Transporter 1 Company Name Warren Express, Inc.	6. US EPA ID Number VAD000622480	A. State Transporter's ID Roger Soubby	
		B. Transporter 1 Phone 717-840-0443	
7. Transporter 2 Company Name	8. US EPA ID Number	C. State Transporter's ID	
		D. Transporter 2 Phone	
9. Designated Facility Name and Site Address MXI Environmental, Inc. 26519 Old Trail Road Abingdon, VA 24210	10. US EPA ID Number VAKD005039920	E. State Facility's ID	
		F. Facility's Phone 540-628-1150	

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Investigation Derived Waste Drill Cuttings, Water, Mud All Non-Regulated, RCRA Nonhazardous	55	DM	X2750	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above	H. Handling Codes for Wastes Listed Above
a. Water 20-80% Drill Cuttings, Mud 20-80%, L	

15. Special Handling Instructions and Additional Information

24 Hour Emergency # 732-613-1000
Plate # [illegible] Decal # 02574
P.O. # 9346-106

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name	Signature	Date Month	Day	Year
J. Iskoch (A.I.S. GTE GSI)		06	08	06

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials		Date Month	Day	Year
Printed/Typed Name Terrence Mair	Signature	06	08	06
18. Transporter 2 Acknowledgement of Receipt of Materials		Date		
Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space				
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.		Date		
Printed/Typed Name	Signature	Month	Day	Year

AWT ENVIRONMENTAL SERVICES, INC.

Remediation • Abatement • Waste Management

JOB # _____ PAGE _____ of _____

CUSTOMER _____

DATE _____

JOB LOCATION _____

PROJECT DESCRIPTION/PHASE _____

EQUIPMENT

Description	EQ. #	Units

MATERIALS

Description	Units

LABOR

Name	Title	ST/Fin	HRS
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	

MISCELLANEOUS

COMMENT(S) _____

CUSTOMER REP. _____ AWT REP. _____

D	E	F	G	H	I	J	K
Generator Address	Transporter Name	Transporter Address	Disposal Facility Name	Disposal Facility Address	Non-Hazardous Material Description	Quantity	Container Type
GTE Site, 100 Cantiague Rock Road, Hicksville, NY 11801	A B Oil Service LTD.	1599 Ocean Avenue Bohemia, NY 11716	A B Oil Service LTD.	1599 Ocean Avenue Bohemia, NY 11716	Fuel Oil from Tank Bottoms	1-55 gallon Drum	DM
GTE Site, 100 Cantiague Rock Road, Hicksville, NY 11801	A B Oil Service LTD.	1599 Ocean Avenue Bohemia, NY 11716	A B Oil Service LTD.	1599 Ocean Avenue Bohemia, NY 11716	Fuel Oil from Tank Bottoms Water Contaminated w/gasoline or oil	350 gallons total	TT TT
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 Drums-3850 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	8 Drums	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	1 CM-12,000 Lb	CM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 DM-3850 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 DM-3850 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	76 DM-4180 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 DM-3850 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	35 DM-1250 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	80 DM-4400 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	48 DM-2640 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	72 DM-3960 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 DM-3850 Gal	DM
GTEOSI,600 Hidden Ridge Road Irving, Texas 75038	Maumee Express, Inc.	Not provided	MXI Environmental, Inc.	26319 Old Trail Road Abington, VA 24210	Non-Regulated Sludge-RCRA Non Haz	70 DM-3940 Gal	DM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Auchter Industrial Vac Inc.	Not provided	Casie Ecology Oil Salvage, Inc.	3209 N. Mill Road Vineland, NJ 08322	Non-Regulated- Non Haz Spent Carbon	001 CM- 20 YD	CM
Magazine Distributor, Inc. 100 Cantiague Rock Road Hicksville, NY 11801	Miller Environmental Group	Not provided	Bridgeport United Recycling	50 Cross Street Bridgeport, CT 06610	Oil/Water Mixture- CT Regulated Waste	001 250-Gal	Gal
Magazine Distributor, Inc. 100 Cantiague Rock Road Hicksville, NY 11801	Miller Environmental Group	Not provided	Bridgeport United Recycling	50 Cross Street Bridgeport, CT 06610	RQ. Gasoline Mixture, 3 UNI203, PGII ERG:128	011 TT 200-Gal	Gal
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Waste Management of Long Island	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Waste Management of Long Island	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards

D	E	F	G	H	I	J	K
Generator Address	Transporter Name	Transporter Address	Disposal Facility Name	Disposal Facility Address	Non-Hazardous Material Description	Quantity	Container Type
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not provided	Earthcare Company of NY	972 Nicolls Road Deer Park, NY 11729	Non-Hazardous Waste Solids- N816	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not Provided	110 Sand Company Clean Fill Disposal Site	Bethpage-Spagnoli Road Melville, NY 11714	Non-Friable Asbestos Roofing	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not Provided	110 Sand Company Clean Fill Disposal Site	Bethpage-Spagnoli Road Melville, NY 11714	Non-Friable Asbestos Roofing	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not Provided	110 Sand Company Clean Fill Disposal Site	Bethpage-Spagnoli Road Melville, NY 11714	Non-Friable Asbestos Roofing	15 YD	Yards
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Blue Water Environmental, Inc.	Not Provided	110 Sand Company Clean Fill Disposal Site	Bethpage-Spagnoli Road Melville, NY 11714	Non-Friable Asbestos Roofing	15 YD	Yards
Blue Water,100 Cantiague Rock Hicksville, NY 11801	Milro Associates Inc.	(516) 379-1500	New York Oil Recovery	94 Hausman Street Brooklyn, NY	Waste Oil	350	Gallons
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Russell Reid	200 Smith Street Keasbey, NJ 08832	Bay Park Scavenger Waste Disposal Facility	Not Provided	Non-Haz Industrial Wastewater	5000	Gallons
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Russell Reid	200 Smith Street Keasbey, NJ 08832	Bay Park Scavenger Waste Disposal Facility	Not Provided	Non-Haz Industrial Wastewater	6000	Gallons
GTEOSI,140 Cantiague Rock Hicksville, NY 11801	Russell Reid	200 Smith Street Keasbey, NJ 08832	Bay Park Scavenger Waste Disposal Facility	Not Provided	Non-Haz Industrial Wastewater	6000	Gallons

GTE Operations Support Incorporated
One Verizon Way (VC34W453)
Basking Ridge, New Jersey 07920
(908) 559-3687

February 13, 2007

Ms. Alyse Peterson
Project Manager
Radioactive Waste Policy and Nuclear Coordination
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, New York 12203-6399

Re: 2006 Low-Level Radioactive Waste Report
Voluntary Cleanup Agreement
For: Former Sylvania Electric Products Incorporated Facility
By: GTE Operations Support Incorporated
Site #: V-00089-1 Index #: W1-0844-98-08 and W1-0903-01-12

Dear Ms. Peterson:

Enclosed is the 2006 Low-Level Radioactive Waste Report for GTE Operations Support Incorporated.

If you have any questions or require additional information, please do not hesitate to contact me. I can be reached at (908) 559-3687 or via facsimile (908) 630-2637.

Sincerely,

Jean M. Agostinelli
Vice President and Controller

cc: John Zeh
Division of Solid and Hazardous Materials
Bureau of Hazardous Waste & Radiation Management
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7255

Jerry Riggi
Division of Solid and Hazardous Materials
Bureau of Hazardous Waste & Radiation Management
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7255

Mr. Robert Stewart
Division of Environmental Remediation
NYSDEC
Region One Headquarters
SUNNY @ Stony Brook
50 Circle Road
Stony Brook, New York 11790-3409

IMPORTANT C PLEASE READ

If your facility generates LLRW that
requires disposal in a licensed LLRW disposal facility
or stores LLRW pending disposal,
you must use this complete
Low-Level Radioactive Waste Report Form.

However, if your facility manages LLRW by
DECAY IN STORAGE ONLY
(i.e., short-lived radionuclides)
you must instead use the
Condensed Form for Decay in Storage Only.

If you have any questions about
which form to complete, contact Alyse Peterson at
NYSERDA C (518) 862-1090, ext. 3274 or
llrwadmin@nyserda.org

Filing Deadline: March 1st - Annually

ABOUT THE REGULATORY AGENCIES

In general, the receipt, possession and use or processing of radioactive material, including low-level radioactive waste (LLRW), requires a radioactive material license from the appropriate New York regulatory agency or the U.S. Nuclear Regulatory Commission. Normally, a single license from a single licensing agency is all that is required for most institutions, corporations, utilities, etc. If an institution or corporation holds multiple licenses under which LLRW was generated, or if people in the organization hold individual licenses under which LLRW was generated, then all of those licenses and the respective licensing agencies must be identified. In that case, append a list of the license numbers and the licensing agencies to the Report Form. The licensing agencies and their respective jurisdictions are:

New York State Department of Labor

$ Regulates industrial radioactive material users in New York State.

New York State Department of Health

$ Regulates non-industrial radioactive material users (e.g., hospitals and universities) in New York State outside of New York City.

New York City Department of Health

$ Regulates non-industrial radioactive material users in New York City.

U.S. Nuclear Regulatory Commission

$ Regulates federal radioactive material users (e.g., Veterans Administration hospitals) and major nuclear facilities (e.g., nuclear power plants) in New York State.

GUIDELINES TO THE GENERATOR REPORT FORM

Waste Management Method	Description	Sections to Complete
Storage for Decay C On Site	LLRW containing radionuclides with half-lives up to 90 days stored on site for decay and eventual disposal as non-radioactive waste.	Sections I, II-A, II-G, IV, V **NOTE: If managing LLRW by Storage for Decay only, use the condensed form**
Storage for Decay C Off Site	Same as above. The LLRW being reported has been transferred to an off-site facility.	Sections I, II-A, II-D, II-G, IV, V **See note directly above.**
Interim Storage C On or Off Site	LLRW containing radionuclides with half-lives greater than 90 days being held in long-term storage pending disposal. **THIS DOES NOT REFER TO ROUTINE ACCUMULATION OF LLRW FOR SUBSEQUENT TRANSFER TO A LICENSED DISPOSAL FACILITY.**	Sections I, II-A through C, II-F through I, III, IV, V, VI
Interim Storage C On or Off Site after Processing	Same as above.	All
Ship for Disposal C Direct	LLRW received by a licensed disposal facility via direct transfer from generator.	Sections I, II-A through C, II-F through I, III, IV, V, VI
Ship for Disposal via Broker/Processor	Some LLRW may undergo additional treatment prior to disposal. Please consider this when reporting LLRW volume in Section II-E. If you use a broker to transport your LLRW, he/she can supply this information.	All

RETURN ANNUALLY BY MARCH 1st TO:

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
Radioactive Waste Policy and Nuclear Coordination Program
17 Columbia Circle
Albany, NY 12203-6399
llrwadmin@NYSERDA.ORG

CODE (official use only)
| | | | | | |

NOTE: Please refer to the **Instructions** before completing this form.

FOR THE PERIOD: JANUARY 1st THROUGH DECEMBER 31st

LOW-LEVEL RADIOACTIVE WASTE
REPORT FORM

PLEASE TYPE OR PRINT LEGIBLY
-Place mailing label from postcard in the space to the right
-Mark any corrections in the table below

Place Mailing Label Here
(Leave Blank If Submitting Electronically)

SECTION I. GENERATOR INFORMATION

A	**Updated Generator Information**		
ENTER 4-DIGIT GENERATOR ID (can be found on the mailing label on annual postcard): ____		ENTER REPORTING YEAR: 2006	
Licensing Agency/ies	**License No(s).**		
New York State Department of Labor	3095-4330		
New York State Department of Health			
New York City Department of Health			
U.S. Nuclear Regulatory Commission			
Your Facility Phone No.: (908)559 - 3687	Ext:	Email Address: jean.agostinelli@verizon.com	
Contact: Jean Agostinelli		Title: Vice President & Controller	
Facility Name: GTE Operation Support Incorporated			
Street Address: One Verizon Way, VC34W453			
City: Basking Ridge	County: Somerset	State: NJ	Zip Code: 07920-1097
B	Name and principal office of facility where LLRW is generated **if** different from A (above)		
Street Address: 140 Cantiague Rock Road			
City: Hicksville	County: Nassau	State: NY	Zip Code: 11801
C	Preparer's Name: Jean Agostinelli	Title: Vice President & Controller	Telephone and Extension: (908) 559 – 3687

D	Identify, by issuing authority and number, permits that authorize transfer of your LLRW to a licensed LLRW disposal facility:		
	Issuing Authority	**Disposal Site Location**	**Disposal Site Use Permit Number**
	Utah DEQ - Division of Radiation Control	Clive, Utah	0205001352
	Carolina Department of Health and Enviromental Control	Barnwell, SC	5201-31-06-Y

E	**FACILITY TYPE CODE** Type in the appropriate letter and number for the appropriate code **OR** choose one from **EACH DROP-DOWN MENU** BELOW. Refer to the instructions to determine the facility type code that best describes your facility. **Choose only one code consisting of a letter and number.**
	Choose a Letter: **I. Industrial Other*** **Choose a Number:** _____
F	Briefly describe the activities, processes, or uses of radioactive material that result in LLRW generation at your facility.

Soil and Groundwater Samples: GTE Operations Support Incorporated (GTEOSI) performed soil and groundwater investigations including a soil remediation program at 140, 100 and 70 Cantiague Rock Road, Hicksville, New York. During the investigations and the remediation activities, samples have been archived in Sea Land containers located in the eastern portion of the 140 Cantiague Rock Road building warehouse area. Since the Phase I Remediaation has been completed, the State of New York Department of Health (NYDOH) issued a letter dated July 17, 2006 to Envirocon, Inc. (Envirocon), the Site remediation contractor who held the New State Radioactive Materials License Number (3095-4330), requiring GTEOSI to dispose of archived samples. Based on this letter and with NYDOH's approval, GTEOSI shipped samples on November 7, 2006, and December 4, 2006 to EnergySolutions in Clive Utah for final disposition.

Sources: During the soil remediation and investigation program on-Site gamma spectroscopy analyses were used. Radioactive Sources used in the gamma Spectroscopy analysis were disposed at Barnwell, SC for final disposition and are included in the NYSERDA report.

Radioactive License Termination: New York State Radioactive Materials License Number (3095-4330) will be terminated in 2007.

This Report Form has been submitted by the preparer listed in item I(C) above. In submitting this form, preparer hereby certifies that the information set forth is true to the best of the preparer's knowledge.	DATE: 2/13/07

SECTION II. INFORMATION ON LLRW

A. LLRW AS GENERATED			
Waste Description Code	Waste Management Method	Chemical Form Code	Other Hazard Code
1	2	3	4
1 A22	W2	C4/C5	H8
2 A36	W1	C4	H8
3 A59	W3	C4/C5	H1
4			
5			
6			
7			
8			
9			
10			
11			

CODES for SECTION II of the LOW-LEVEL RADIOACTIVE WASTE REPORT FORM

Note: If you respond "other" to any item, please provide an explanation on the Attachment Sheet provided in Section VII.

A. LLRW AS GENERATED

1 WASTE DESCRIPTION CODE

Choose the category that best describes the waste.

- 20 Charcoal
- 21 Incinerator Ash
- 22 Soil
- 23 Gas
- 24 Oil
- 25 Aqueous Liquid
- 26 Filter Media
- 27 Mechanical Filter
- 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 Dry or Compactible Trash (paper, plastic, glass, etc.)
- 40 Noncompactible Trash (metal components, etc.)
- 41 Animal Carcass
- 42 Biological Material (except animal carcass)
- 43 Activated Material
- 44 Material that will be Incinerated
- 59 Other (describe)

2 WASTE MANAGEMENT METHOD

Transfer to Authorized Recipient

- W1 Transfer to Disposal Site via Broker
- W2 Transfer to Disposal Site Directly
- W3 Transfer - Other (describe)

Interim Storage

- W4 Placed in Storage before current reporting year
- W5 Placed in Storage during current reporting year
- W6 Shipped for Treatment prior to Storage

Storage for Decay

- W7 Storage for Decay (Only limited information required. See instructions.)

3 CHEMICAL FORM CODE

- C1 Paper and Plastic
- C2 Glass
- C3 Metals
- C4 Metal Oxides
- C5 Inorganic Salts
- C6 Organic Salts
- C7 Nucleic Acids
- C8 Amino Acids, Proteins, Enzymes
- C9 Carbohydrates, Sugars
- C10 Lipids, Fatty Acids
- C11 Other (describe)

4 OTHER HAZARD CODE

- H1 Ignitable
- H2 Corrosive
- H3 Toxic
- H4 Reactive
- H5 Pathogenic
- H6 Carcinogenic
- H7 Other (describe)
- H8 None

B. ON-SITE WASTE TREATMENT

Treatment Code		Sorption or Solidification Code	Effect of Treatment	Post-Treatment Volume (m^3)
5		6	7	8
1	T21	100	N/A	N/A
2	T21	100	N/A	N/A
3	T21	100	N/A	N/A
4				
5				
6				
7				
8				
9				
10				
11				

B. ON-SITE WASTE TREATMENT

5 TREATMENT CODE

T1 Compaction
T2 Supercompaction
T3 Evaporation/ Crystallization
T4 Fluid Bed Drying/ Calcination
T5 Wet Oxidation
T6 Membrane Separation (ultrafiltration, reverse osmosis)
T7 Incineration
T8 Solidification
T9 Adsorption
T10 Sorting/Segregation
T11 Macroencapsulation
T12 Absorption
T13 Decontamination
T14 Surface Removal (scabbing, abrasive cleaning)
T15 Dry Chemical Packing (lime)
T16 Size Reduction (sectioning, shredding, cutting)
T17 Steam Reform
T18 Catalytic Extraction Process
T19 Dewatered
T20 Other (describe)
T21 None

6 SOLIDIFICATION OR SORPTION CODE

Sorption
60 Speedi Dri
61 Celetom
62 Floor Dry/Superfine
63 Hi Dri
64 Safe T Sorb
65 Safe N Dri
66 Florco
67 Florco X
68 Solid A Sorb
69 Chemsil 30
70 Chemsil 50
72 Dicaperl HP200
73 Dicaperl HP500
74 Petroset
75 Petroset II
76 Aquaset
77 Aquaset II
89 Other (describe)

Solidification
90 Cement
91 Concrete (encapsulation)
92 Bitumen
93 Vinyl Chloride
94 Vinyl Ester Styrene
99 Other (describe)
100 None Required

7 EFFECT OF TREATMENT

Impact of treatment on volume may be shown in percent or ratio. Note increase or decrease by 8 or 9, and describe change in chemical and physical form.

8 POST-TREATMENT VOLUME

Volume must be noted in cubic meters (m^3).

SECTION II. INFORMATION ON LLRW (cont.)

C. ON-SITE CONTAINER INFORMATION					D. BROKER/PROCESSOR INFORMATION		
	Container Description Code	Container Volume (m^3)	Maximum Surface Radiation Level (mSv/hr)	Number of Containers	Broker Code	Processor Code	Treatment Code
	9	10	11	12	13	14	15
1	19	5.38	.2	16	BC9	N/A	T21
2	4	.038	<.005	1	BC10	N/A	T21
3	4	0.21237	<.0001	7	BC9	N/A	T7
4							
5							
6							
7							
8							
9							
10							
11							

C. ON-SITE CONTAINER INFORMATION

9 CONTAINER DESCRIPTION CODE

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 Demineralizer
10 Gas Cylinder
11 Bulk, Unpackaged Waste
12 Unpackaged Components
13 High-Integrity Container
14 Fiberboard Drum
19 Other (describe)

10 CONTAINER VOLUME
Volume must be noted in cubic meters (m^3).

11 MAXIMUM SURFACE RADIATION LEVEL
Surface radiation must be noted in mSv/hr.

12 NUMBER OF CONTAINERS
This information is required for each waste form.

D. BROKER/PROCESSOR INFORMATION

13 BROKER CODE

BC1 NDL
BC2 Radiac
BC3 Adco
BC4 Teledyne
BC5 US Ecology
BC6 Chem-Nuclear
BC7 SEG
BC8 Bionomics
BC9 Direct transfer
BC10 Other (describe)
BC11 None

14 PROCESSOR CODE

P1 GTS Duratek
P2 NSSI
P3 DSSI
P4 Chem Nuclear, IL
P5 Alaron
P6 Quadrex, TN
P7 Permafix, FL
P8 ATG, TN
P9 ATG, WA
P10 Other (describe)

15 TREATMENT CODE
See codes B-5.

SECTION II. INFORMATION ON LLRW (cont.)

E. POST-PROCESSOR TREATMENT INFORMATION			F. OTHER CHARACTERISTICS				
			Source Material		SNM		
	Effect of Treatment	Total Post-Treatment Volume (m^3)	Source Material Code	Weight of Source Material (grams)	SNM Code	Total SNM (grams)	Maximum grams SNM in any shipment (grams)
	16	17	18	19	20	21	22
1	N/A	N/A	NU/NT	3429	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	NU/NT	5.3877	NA	N/A	N/A
4							
5							
6							
7							
8							
9							
10							
11							

E. POST-PROCESSOR TREATMENT INFORMATION

16 EFFECT OF TREATMENT
See instructions for B-7.

17 TOTAL POST-TREATMENT VOLUME
Volume must be noted in cubic meters (m^3).

F. OTHER CHARACTERISTICS

18 SOURCE MATERIAL CODE
Source Material C Enter one code per line. Use a separate line for each type of source material transferred.

NU Natural Uranium
DU Depleted Uranium
UO Uranium Ores
NT Natural Thorium
TO Thorium Ores

19 WEIGHT OF SOURCE MATERIAL
Weight must be noted in grams (g).

20 SNM CODE
Special Nuclear Material means one of the following:

SNM1 Plutonium
SNM2 Uranium-233

SNM3 Uranium enriched in the isotope 233 or in the isotope 235
SNM4 Any material artificially enriched by any of the foregoing

21 TOTAL SNM
Weight must be noted in grams(g).

22 MAXIMUM GRAMS SNM IN ANY SHIPMENT
Self-explanatory.

SECTION II. INFORMATION ON LLRW (cont.)

F. OTHER CHARACTERISTICS (cont.)					G. DISPOSAL AND STORAGE INFORMATION			
Waste With Chelating Agents								
Chelate Code		Volume and Weight of LLRW		Weight % Chelates	LLRW Class	Disposition Code	Disposal Site Code	Storage Site Code
		Volume (m^3)	Weight (kg)					
23		24	25	26	27	28	29	30
1	N/A	N/A	N/A	N/A	AU	D1	DS2	N/A
2	N/A	N/A	N/A	N/A	AU	D9	DS1	N/A
3	N/A	N/A	N/A	N/A	AU	D2	DS2	N/A
4								
5								
6								
7								
8								
9								
10								
11								

3 CHELATE CODE
- CA1 EDTA
- CA2 DTPA
- CA3 Carbolic Acid
- CA4 Hydroxy-carbolic Acids
- CA5 Citric Acid
- CA6 Glucinic Acid
- CA7 Other (describe)

4 VOLUME OF LLRW
Volume of LLRW containing chelating agents (m^3).

5 WEIGHT OF LLRW
Weight of LLRW containing chelating agents (kg).

WEIGHT % CHELATES
Weights less than 1% need not be reported.

G. DISPOSAL AND STORAGE

27 LLRW CLASS
Class of radioactive waste as described in sections 61.55 and 61.56 of Title 10, Code of Federal Regulations, as in effect on January 26, 1983, attached following instructions.
- AS Class A stable
- AU Class A unstable
- B Class B
- C Class C

28 DISPOSITION CODE
- D1 Directly to disposal
- D2 Treatment prior to disposal
- D3 Treatment/returned for storage
- D4 Treatment/no disposal (decontamination and reuse)
- D5 Storage/no treatment
- D6 Hold for decay on site and dispose as non-radioactive
- D7 Hold for decay off site and dispose as non-radioactive
- D8 Treatment/off-site storage
- D9 Other (describe)

29 DISPOSAL SITE
- DS1 Barnwell, SC
- DS2 Clive, UT
- DS3 Richland, WA
- DS4 Other (describe)

30 STORAGE SITE
- S1 On site
- S2 Radiac
- S3 NDL
- S4 Adco
- S5 Other (describe)

H. LLRW NOT MEETING DISPOSAL FACILITY ACCEPTANCE CRITERIA				
LLRW Class	**Hazard Code**	**Volume (m^3)**	**Activity (MBq)**	**Radionuclides**
31	32	33	34	35
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

H. LLRW WITH UNACCEPTABLE DISPOSAL CRITERIA

31 LLRW CLASS
See codes G-27.

32 HAZARD CODE
See codes B-4.

33 VOLUME
Volume must be noted in cubic meters (m^3).

34 ACTIVITY
Activity must be reported in MegaBecquerels (MBq).

35 RADIONUCLIDES
As applicable to H-3.

I. CONTAINERS WITH SURFACE RADIATION LEVELS GREATER THAN 2mSv/hr (200mR/hr)			
LLRW Class		**Volume (m^3)**	**Activity by Radionuclide (MBq)**
36		37	38
N/A	N/A	N/A	N/A

SECTION III. LLRW SUMMARY (In order for information to total correctly, press the TAB key to navigate between cells)

A. DISPOSAL TOTALS FOR THIS YEAR								
Classes	**Disposed at: Barnwell, SC**		**Disposed at: Clive, UT**		**Disposed at: Richland, WA**		**SUBTOTALS BY CLASS**	
Class A	**Volume (m^3)**	**Activity (MBq)**	**Volume (m^3)**	**Activity (MBq)**	**Volume (m^3)**	**Activity (MBq)**	**Volume –A**	**Activity –A**
Via Broker/ Processor	0.038	0.190					0.038	0.190
Direct Transfer			86.800	114.947			86.800	114.947
Class B							**Volume –B**	**Activity –B**
Via Broker/ Processor							0.000	0.000
Direct Transfer							0.000	0.000
Class C							**Volume –C**	**Activity –C**
Via Broker/ Processor							0.000	0.000
Direct Transfer							0.000	0.000
TOTALS	0.038	0.190	86.800	114.947	0.000	0.000		
					TOTAL ALL CLASSES		**VOLUME**	**ACTIVITY**
							86.838	115.137

(In order for information to total correctly, press the TAB key to navigate between cells)

B. INTERIM STORAGE TOTALS						
Classes	Placed in Interim Storage during this year		Placed in Interim Storage before this year		SUBTOTALS BY CLASS	
Class A	Volume (m³)	Activity (MBq)	Volume (m³)	Activity (MBq)	Volume - A	Activity - A
On Site					0.000	0.000
Off Site					0.000	0.000
Class B					Volume - B	Activity - B
On Site					0.000	0.000
Off Site					0.000	0.000
Class C					Volume - C	Activity - C
On Site					0.000	0.000
Off Site					0.000	0.000
TOTALS	0.000	0.000	0.000	0.000		
			TOTAL ALL CLASSES		0.000	0.000

SECTION IV. RADIONUCLIDE INFORMATION FOR WASTE DISPOSED, HELD FOR DECAY, AND STORED

NOTE: Radionuclides mean each individual radionuclide if known, or, at a minimum, all radionuclides that have been or would have to be identified on disposal site manifests. H-3, C-14, Tc-99, and I-129 **must be identified** where present.

A.1	List the radionuclides contained in the **LLRW disposed of** during this year (see response to Section III-A). **Use additional sheets** as necessary. (In order for information to total correctly, press the TAB key to navigate between cells)				
Radionuclide	**Activity (MBq)**	**Radionuclide**	**Activity (MBq)**	**Radionuclide**	**Activity (MBq)**
Th-230	1.353	Am-241	0.004		
Th-232	2.587	Cd-109	0.046		
U-nat	63.580	Co-57	0.002		
Ac-227	0.219	Co-60	0.020		
PA-231	0.927	Cr-51	0.056		
Ra-223	0.202	Cs-137	0.008		
Ra-226	0.613	Sn-113	0.008		
RA-228	2.587	Sr-85	0.010		
Th-227	0.219	Te-123m	0.002		
Th-228	3.038	Y-88	0.034		
U-234	39.622				
					Total Activity in MBq 115.137

Total activity for all radionuclides listed above:
Total activity should equal total for LLRW **disposed** of, as reported in Section III-A.

A.2	If any of the radionuclides listed in Table A-1 have half-lives of less than 90 days, please explain why these are not being held for decay and eventual disposal as non-radioactive waste.

B.1	List the radionuclides contained in the LLRW **being held in storage for decay on site** as of December 31. **Use additional sheets as necessary.**				
Radionuclide	**Radionuclide**	**Radionuclide**	**Radionuclide**	**Radionuclide**	**Radionuclide**
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

B.2	List the radionuclides contained in the LLRW **being held in storage for decay off site** as of December 31. **Use additional sheets as necessary.**				
Radionuclide	**Radionuclide**	**Radionuclide**	**Radionuclide**	**Radionuclide**	**Radionuclide**
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

C.1	**On site B** List radionuclides contained in LLRW in **interim storage on site** as of December 31. **Use additional sheets as necessary.** (In order for information to total correctly, press the TAB key to navigate between cells)				
Radionuclide	**Activity (MBq)**	**Radionuclide**	**Activity (MBq)**	**Radionuclide**	**Activity (MBq)**
					Total Activity in MBq 0.000

'otal activity for all radionuclides listed above:
'otal activity should equal total for LLRW **stored on site**, as reported.

C.2	**Off site** B List radionuclides contained in LLRW in **interim storage off site** as of December 31. **Use additional sheets as necessary.** (In order for information to total correctly, press the TAB key to navigate between cells)

Radionuclide	Activity (MBq)	Radionuclide	Activity (MBq)	Radionuclide	Activity (MBq)
					Total Activity in MBq 0.000

Total activity for all radionuclides listed above:
Total activity should equal total for LLRW being **stored off site**, as reported.

C.3	If any of the radionuclides listed in Table C-1 or C-2 have half-lives of less than 90 days, please explain why these are not being held for decay and eventual disposal as non-radioactive waste.

SECTION V. STORAGE FACILITY INFORMATION

NOTE: If your facility manages LLRW by storage for decay only, you only need to complete the Condensed Form for Decay in Storage Only.

ON-SITE STORAGE FACILITIES		
A.1	Briefly describe your on-site LLRW storage facilities. Include facilities you have for storage of special LLRW forms such as freezers, shielded areas for high-radiation-level wastes, or bermed storage areas for liquid wastes, and estimate the storage capacity for each.	
A.2	Total Storage Capacity: _____ m^3	
A.3	Estimated maximum volume of LLRW held in storage for decay at any one time: 0 m^3	
B	Do you have any plans for increasing your on-site storage capacity?	☐ No. Skip to C. ☐ Yes. Complete this section.
Describe such plans and indicate your expected new storage capacity.		

OFF-SITE STORAGE FACILITIES	
C	Off-site storage facility information. Use additional pages if necessary.
Please indicate if off-site storage is for storage for decay or interim storage.	☐ Storage for decay ☐ Interim storage
Name of facility:	
Address:	
Contact and phone number:	

NOTE: Please answer the following question based on LLRW requiring disposal at licensed LLRW disposal facilities, *not* LLRW held in storage for decay. DO NOT USE DESCRIPTIVE TERMS SUCH AS UNLIMITED, CONTINUOUS, OR INDEFINITE.

ESTIMATED STORAGE TIME FOR LLRW REQUIRING DISPOSAL		
D	Based on your anticipated LLRW generation rate and your anticipated capacity to store waste as of December 31, HOW MANY MONTHS could you continue to produce and store LLRW on site if access to licensed LLRW disposal facilities were no longer available?	**NOTE: Answer *must* be in months.** ____ months

SECTION VI. FUTURE LLRW GENERATION

2006 FUTURE LLRW GENERATION THAT WILL REQUIRE DISPOSAL
(In order for information to total correctly, press the TAB key to navigate between cells)

Year	Class	Activity (MBq)	Volume (m^3)	Radionuclides
2007	A	0.000	0.000	
	B			
	C			
	Total	0.000	0.000	
2008	A	0.000	0.000	
	B			
	C			
	Total	0.000	0.000	
2009	A	0.000	0.000	
	B			
	C			
	Total	0.000	0.000	
2010	A	0.000	0.000	
	B			
	C			
	Total	0.000	0.000	
2011	A			
	B			
	C			
	Total	0.000	0.000	

SECTION VII. ATTACHMENT SHEET
FOR ANY ADDITIONAL INFORMATION

Section II. Information on LLRW
Part A. Line 3, Column 1- Waste Discription Code - Other - Soil and Methanol Mixed

Section II. Information on LLRW
Part A. Line 3, Column 2 - Waste management Method - Shipped to Energy Solutions for Treatment on 12/4/ 2006 and will be disposed of in 2007. An Annual Report Will be submitted in 2007 for this waste.

Section II. Information on LLRW
Part C. Line 1, Column 9 - On-site Container Dicription Code - Lift Liners

Section II. Information on LLRW
Part D. Line 2, Column 13 - Broker Code - Chase Enviromental

Section II. Information on LLRW
Part G. Line 2, Column 28 - Disposition Code - Processed at Alaron In 2005 and disposed of at Barnwell, SC in 2006

L100243

ARRIVED: 11/20/2006

RECORD: 0840-01-0988

HAZ_MANIFEST:

VEHICLE_ID: MHFX5288

CUFEET: 1520

Waste Type: NORM

Conveyance Release Survey:

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ==> 8

4 DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? ☐ YES ☑ NO

If "Yes" provide Manifest Number ==>

EPA MANIFEST NUMBER

5 SHIPPER – NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

Utah Generator Site Access Permit No: 020 500 1352

SHIPMENT NUMBER: MHFX-5288

CONTACT: Jean Agostinelli

6 CARRIER – Name and Address
Priority Transport Services, Inc
391 Anthony Street
Schenectady, NY 12306

CONTACT: Dispatch

SIGNATURE – Authorized carrier acknowledging waste receipt

SHIPPER ID NUMBER: 0840-01-988

☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 908 559-3886

EPA ID NUMBER: NYR000104976

SHIPPING DATE: 11/07/2006

TELEPHONE (Include Area Code): 800-238-8069

DATE: 11-7-06

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): 0840-01-988

9 CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

L100243

CONTACT: Shipping and Receiving

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

SIGNATURE – Authorized consignee acknowledging waste receipt

DATE: 11/27/06

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 requirements of 10 CFR Parts 20 and 61 or equivalent state regulations

AUTHORIZED SIGNATURE: [signature] TITLE: Broker DATE: 11-7-06

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	16 TOTAL PACKAGE ACTIVITY mCi	17 LSA/SCO CLASS	18 TOTAL WEIGHT OR VOLUME (Use appropriate units)	19 IDENTIFICATION NUMBER OF PACKAGE
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	8 5190E+00	2.3024E-01	NA	15340 LBS, 200 FT3	9234
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	9 2671E+00	2 5046E-01	NA	16680 LBS, 200 FT3	9235
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	8 4241E+00	2.2768E-01	NA	15170 LBS; 200 FT3	9236

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 the 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)
0840-01-988

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.7758E+00	2 3718E-01	NA	15800 LBS; 200 FT3	9237
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.4304E+00	2.0082E-01	NA	13390 LBS, 200 FT3	9238
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.5525E+00	2 3115E-01	NA	15400 LBS; 200 FT3	9239
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6 2860E+00	1.6989E-01	NA	11340 LBS; 200 FT3	9247
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3 9525E+00	1 0682E-01	NA	7160 LBS, 120 FT3	9248
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
8	m3 43.0418 ft3 1520.0000	kg 49731 8706 ton 54 8200	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	6 1208E+01	NP	NP	NP	NP	(kg)	1.6273E+00
mCi	1 6543E+00	NP	NP	NP	NP	(tons)	1.7938E-03

2 MANIFEST NUMBER 0840-01-988

3 PAGE 1 OF 4 PAGE(S)

4 SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-988

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
9234/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	5968 1074	0 0002	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32742E-02	1 6205E-02	4 3797E-04	AU
		200 0000	7 6700	0 0200	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 8746E-02	1.8580E-03	
												Ra-223	5 85543E-02	1 4996E-02	4 0530E-04	
												Ra-226	1 77570E-01	4 5477E-02	1.2291E-03	
												Ra-228	7 48694E-01	1 9175E-01	5 1823E-03	
												Th-227 [1.4128E-14 kg]	6.32742E-02	1 6205E-02	4.3797E-04	
												Th-228 [7.4251E-12 kg]	8 79629E-01	2.2528E-01	6 0886E-03	
												Th-230 [1 2909E-07 kg]	3 91648E-01	1 0030E-01	2.7109E-03	
												Th-232 [4 7112E-02 kg]	7.48694E-01	1 9175E-01	5.1823E-03	
												U-234 [1 2800E-05 kg]	1.14657E+01	2 9364E+00	7 9363E-02	
												U-Nat [1 7937E-01 kg]	1.83984E+01	4 7120E+00	1.2735E-01	
												Subtotal		8 5191E+00	2.3025E-01	
												Total		8 5191E+00	2 3025E-01	
												Source [2 2649E-01 kg]				
9236/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7595 9212	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32743E-02	1 7628E-02	4 7643E-04	AU
		200 0000	8 3400	0 0200	<2 2000E+02	<2.2000E+03		200 0000				Pa-231	2 68421E-01	7 4781E-02	2 0211E-03	
												Ra-223	5 85543E-02	1 6313E-02	4.4089E-04	
												Ra-226	1 77579E-01	4 9473E-02	1.3371E-03	
												Ra-228	7 48699E-01	2 0858E-01	5.6374E-03	
												Th-227 [1 5369E-14 kg]	6 32743E-02	1 7628E-02	4.7643E-04	
												Th-228 [8.0771E-12 kg]	8 79622E-01	2 4506E-01	6.6232E-03	
												Th-230 [1.4043E-07 kg]	3 91655E-01	1 0911E-01	2 9490E-03	
												Th-232 [5 1249E-02 kg]	7.48699E-01	2 0858E-01	5 6374E-03	

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 Seavan

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 Compactable Trash
40 Noncompactable 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 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 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) / (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)	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				16 WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
												RADIONUCLIDES	pCi/gm	MBq	mCi	
												U-234 [1.3925E-05 kg]	1 14657E+01	3 1943E+00	8 6332E-02	
												U-Nat [1.9512E-01 kg]	1 83981E+01	5 1256E+00	1 3853E-01	
												Subtotal		9 2671E+00	2 5046E-01	
												Total		9.2671E+00	2 5046E-01	
												Source [2 4638E-01 kg]				
9236/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6850 9967	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32740E-02	1.6024E-02	4.3309E-04	AU
		200 0000	7 5850	0 0200	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 7980E-02	1.8373E-03	
												Ra-223	5 85536E-02	1 4829E-02	4 0078E-04	
												Ra-226	1 77569E-01	4 4970E-02	1 2154E-03	
												Ra-228	7 48699E-01	1 8961E-01	5 1246E-03	
												Th-227 [1 3971E-14 kg]	6 32740E-02	1 6024E-02	4 3309E-04	
												Th-228 [7.3424E-12 kg]	8 79618E-01	2 2277E-01	6 0207E-03	
												Th-230 [1 2765E-07 kg]	3 91648E-01	9.9186E-02	2.6807E-03	
												Th-232 [4.6587E-02 kg]	7 48699E-01	1.8961E-01	5 1246E-03	
												U-234 [1 2658E-05 kg]	1.14657E+01	2.9037E+00	7 8479E-02	
												U-Nat [1.7737E-01 kg]	1 83982E+01	4.6594E+00	1 2593E-01	
												Subtotal		8 4241E+00	2 2768E-01	
												Total		8.4241E+00	2 2768E-01	
												Source [2.2397E-01 kg]				
9237/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7166 7899	0 0020	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32738E-02	1 6693E-02	4 5117E-04	AU
		200 0000	7 9000	0 2000	<2 2000E+02	<2.2000E+03		200 0000				Pa-231	2 68427E-01	7 0818E-02	1 9140E-03	
												Ra-223	5 85546E-02	1 5448E-02	4 1752E-04	
												Ra-226	1 77577E-01	4 6849E-02	1 2662E-03	
												Ra-228	7 48692E-01	1 9752E-01	5 3385E-03	
												Th-227 [1.4554E-14 kg]	6 32738E-02	1 6693E-02	4 5117E-04	
												Th-228 [7 6489E-12 kg]	8 79624E-01	2 3207E-01	6 2721E-03	
												Th-230 [1 3298E-07 kg]	3 91645E-01	1.0333E-01	2.7926E-03	
												Th-232 [4 8532E-02 kg]	7.48692E-01	1 9752E-01	5.3385E-03	
												U-234 [1 3186E-05 kg]	1.14656E+01	3 0249E+00	8.1755E-02	
												U-Nat [1 8477E-01 kg]	1.83986E+01	4 8540E+00	1.3119E-01	
												Subtotal		8.7758E+00	2.3719E-01	
												Total		8 7758E+00	2.3719E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION					15 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)/(lon)	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%	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
												Source [2.3332E-01 kg]				
9238/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6073 6022	0 0001	<3 6740E-06	<3 6740E-06	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32735E-02	1.4134E-02	3.8200E-04	AU
		200 0000	6 6950	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68432E-01	5.9962E-02	1.6206E-03	
												Ra-223	5 85545E-02	1.3080E-02	3.5351E-04	
												Ra-226	1.77580E-01	3 9668E-02	1.0721E-03	
												Ra-228	7 48698E-01	1.6724E-01	4 5201E-03	
												Th-227 [1.2323E-14 kg]	6 32735E-02	1 4134E-02	3 8200E-04	
												Th-228 [6 4763E-12 kg]	8.79618E-01	1 9649E-01	5 3105E-03	
												Th-230 [1.1260E-07 kg]	3 91650E-01	8 7487E-02	2 3645E-03	
												Th-232 [4 1092E-02 kg]	7 48698E-01	1 6724E-01	4 5201E-03	
												U-234 [1.1165E-05 kg]	1 14656E+01	2.5612E+00	6 9221E-02	
												U-Nat [1 5645E-01 kg]	1 83990E+01	4 1100E+00	1 1108E-01	
												Subtotal		7 4306E+00	2 0083E-01	
												Total		7 4306E+00	2 0083E-01	
												Source [1.9755E-01 kg]				
9238/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6985 3230	0 0001	<3 6740E-06	<3 6740E-06	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32739E-02	1 6269E-02	4.3969E-04	AU
		200 0000	7 7000	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68427E-01	6 9016E-02	1 8653E-03	
												Ra-223	5 85538E-02	1 5056E-02	4 0689E-04	
												Ra-226	1 77580E-01	4 5658E-02	1.2340E-03	
												Ra-228	7 48698E-01	1 9250E-01	5 2027E-03	
												Th-227 [1.4184E-14 kg]	6 32739E-02	1 6269E-02	4 3969E-04	
												Th-228 [7.4543E-12 kg]	8 79623E-01	2 2618E-01	6.1126E-03	
												Th-230 [1 2960E-07 kg]	3 91654E-01	1 0070E-01	2 7216E-03	
												Th-232 [4 7297E-02 kg]	7 48698E-01	1 9250E-01	5.2027E-03	
												U-234 [1 2851E-05 kg]	1 14657E+01	2.9480E+00	7.9675E-02	
												U-Nat [1 8007E-01 kg]	1 83983E+01	4.7305E+00	1.2785E-01	
												Subtotal		8 5526E+00	2 3115E-01	
												Total		8 5526E+00	2.3115E-01	
												Source [2 2738E-01 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9247/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	5143 7378	0 0001	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32746E-02	1 1957E-02	3 2317E-04	AU
		200 0000	5 6700	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68433E-01	5 0727E-02	1 3710E-03	
												Ra-223	5 85540E-02	1 1065E-02	2 9906E-04	
												Ra-226	1 77573E-01	3.3557E-02	9 0694E-04	
												Ra-228	7.48695E-01	1.4148E-01	3.8239E-03	
												Th-227 [1 0425E-14 kg]	6.32746E-02	1.1957E-02	3.2317E-04	
												Th-228 [5.4788E-12 kg]	8.79622E-01	1.6623E-01	4.4926E-03	
												Th-230 [9 5254E-08 kg]	3 91646E-01	7 4011E-02	2 0003E-03	
												Th-232 [3 4763E-02 kg]	7 48695E-01	1 4148E-01	3 8239E-03	
												U-234 [9 4451E-06 kg]	1 14657E+01	2 1667E+00	5 8560E-02	
												U-Nat [1 3235E-01 kg]	1 83983E+01	3 4768E+00	9 3968E-02	
												Subtotal		6 2860E+00	1 6989E-01	
												Total		6 2860E+00	1 6989E-01	
												Source [1.6712E-01 kg]				
9248/GTEOSI	19 Strong Tight Container Loaded in Gondola	3 3980	3247 7216	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	3 3980	100	OXIDES/NONE	0 00	Ac-227	6 32742E-02	7 5184E-03	2.0320E-04	AU
		120 0000	3 5800	0 0200	<2 2000E+02	<2 2000E+03		120 0000				Pa-231	2 68424E-01	3 1895E-02	8 6202E-04	
												Ra-223	5 85536E-02	6.9575E-03	1.8804E-04	
												Ra-226	1 77573E-01	2.1100E-02	5.7026E-04	
												Ra-228	7 48704E-01	8 8963E-02	2 4044E-03	
												Th-227 [6 5548E-15 kg]	6.32742E-02	7 5184E-03	2 0320E-04	
												Th-228 [3 4449E-12 kg]	8 79612E-01	1 0452E-01	2 8248E-03	
												Th-230 [5.9893E-08 kg]	3 91665E-01	4 6539E-02	1 2578E-03	
												Th-232 [2 1858E-02 kg]	7 48704E-01	8.8963E-02	2.4044E-03	
												U-234 [5.9389E-06 kg]	1.14657E+01	1.3624E+00	3 6821E-02	
												U-Nat [8.3218E-02 kg]	1.83984E+01	2 1861E+00	5 9085E-02	
												Subtotal		3.9525E+00	1.0682E-01	
												Total		3.9525E+00	1.0682E-01	
												Source [1.0508E-01 kg]				
Shipment Totals		43 0418	50022 1696									Source [1.6273E+00 kg]		6.1208E+01	1 6543E+00	
		1520 0000	55 1400													

FORM 541A (03-06)

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-01-988
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-988
EnergySolutions, LLC

Total Activity

Isotope	(MBq)	(mCi)	(Ci)
Ac-227	1 1643E-01	3 1467E-03	3 1467E-06
Pa-231	4 9392E-01	1 3349E-02	1 3349E-05
Ra-223	1 0774E-01	2 9120E-03	2 9120E-06
Ra-226	3 2675E-01	8 8310E-03	8 8310E-06
Ra-228	1 3777E+00	3 7234E-02	3 7234E-05
Th-227	1 1643E-01	3.1467E-03	3 1467E-06
Th-228	1 6186E+00	4 3745E-02	4 3745E-05
Th-230	7 2066E-01	1 9477E-02	1 9477E-05
Th-232	1 3777E+00	3 7234E-02	3 7234E-05
U-234	2 1098E+01	5.7020E-01	5 7020E-04
U-Nat	3 3854E+01	9.1498E-01	9.1498E-04

FORM 540 — **EnergySolutions, LLC**

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST =====> 8

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

5. SHIPPER -- NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

SHIPPER I.D. NUMBER: 0840-01-988
☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

Utah Generator Site Access Permit No.: 020 500 1352
SHIPMENT NUMBER: MHFX-5288

CONTACT: Jean Agostinelli
TELEPHONE NUMBER (Include Area Code): 908-559-3686

6. CARRIER -- Name and Address
Priority Transport Services, Inc.
391 Anthony Street
Schenectady, NY 12308

EPA I.D. NUMBER: NYR000104976
SHIPPING DATE: 11/07/2006

CONTACT: Dispatch
TELEPHONE (Include Area Code): 800-235-0069

SIGNATURE -- Authorized carrier acknowledging waste receipt
DATE: 11-7-06

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): 0840-01-988

9. CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

CONTACT: Shipping and Receiving
TELEPHONE (Include Area Code): 435-884-0155

SIGNATURE -- Authorized consignee acknowledging waste receipt
DATE

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 requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: [signature] — TITLE: Broker — DATE: 11-7-06

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	16. TOTAL PACKAGE ACTIVITY mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	8.5190E+00	2.3024E-01	NA	15340 LBS; 200 FT3	9234
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	9.2671E+00	2.5046E-01	NA	16680 LBS; 200 FT3	9235
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	8.4241E+00	2.2768E-01	NA	15170 LBS; 200 FT3	9236

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 540A

EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0840-01-988

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.7758E+00	2.3718E-01	NA	15800 LBS; 200 FT3	9237
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.4304E+00	2.0082E-01	NA	13390 LBS; 200 FT3	9238
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.5525E+00	2.3115E-01	NA	15400 LBS; 200 FT3	9239
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6.2860E+00	1.6989E-01	NA	11340 LBS; 200 FT3	9247
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3.9525E+00	1.0682E-01	NA	7160 LBS; 120 FT3	9248
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
8	m3 43.0418 / ft3 1520.0000	kg 49731.8706 / ton 54.8200	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	6.1208E+01	NP	NP	NP	NP	(kg)	1.6273E+00
mCi	1.6543E+00	NP	NP	NP	NP	(tons)	1.7938E-03

2. MANIFEST NUMBER 0840-01-988

3. PAGE 1 OF 4 PAGE(S)

4. SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-988

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: 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
9234/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6958.1074	0.0002	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32742E-02	1.6205E-02	4.3797E-04	AU
		200.0000	7.6700	0.0200	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68428E-01	6.8746E-02	1.8580E-03	
												Ra-223	5.85543E-02	1.4996E-02	4.0530E-04	
												Ra-226	1.77570E-01	4.5477E-02	1.2291E-03	
												Ra-228	7.48694E-01	1.9175E-01	5.1823E-03	
												Th-227 [1.4128E-14 kg]	6.32742E-02	1.6205E-02	4.3797E-04	
												Th-228 [7.4251E-12 kg]	8.79629E-01	2.2528E-01	6.0886E-03	
												Th-230 [1.2909E-07 kg]	3.91648E-01	1.0030E-01	2.7109E-03	
												Th-232 [4.7112E-02 kg]	7.48694E-01	1.9175E-01	5.1823E-03	
												U-234 [1.2800E-05 kg]	1.14657E+01	2.9364E+00	7.9363E-02	
												U-Nat [1.7937E-01 kg]	1.83984E+01	4.7120E+00	1.2735E-01	
												Subtotal		8.5191E+00	2.3025E-01	
												Total		8.5191E+00	2.3025E-01	
												Source [2.2649E-01 kg]				
9235/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	7565.9212	0.0002	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32743E-02	1.7628E-02	4.7643E-04	AU
		200.0000	8.3400	0.0200	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68421E-01	7.4781E-02	2.0211E-03	
												Ra-223	5.85543E-02	1.6313E-02	4.4089E-04	
												Ra-226	1.77579E-01	4.9473E-02	1.3371E-03	
												Ra-228	7.48699E-01	2.0858E-01	5.6374E-03	
												Th-227 [1.5369E-14 kg]	6.32743E-02	1.7628E-02	4.7643E-04	
												Th-228 [8.0771E-12 kg]	8.79622E-01	2.4506E-01	6.6232E-03	
												Th-230 [1.4043E-07 kg]	3.91655E-01	1.0911E-01	2.9490E-03	
												Th-232 [5.1249E-02 kg]	7.48699E-01	2.0858E-01	5.6374E-03	

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 Seavan

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 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-988

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												U-234 [1.3925E-05 kg]	1.14657E+01	3.1943E+00	8.6332E-02	
												U-Nat [1.9512E-01 kg]	1.83981E+01	5.1256E+00	1.3853E-01	
												Subtotal		9.2671E+00	2.5046E-01	
												Total		9.2671E+00	2.5046E-01	
												Source [2.4638E-01 kg]				
9236/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6880.9967	0.0002	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32740E-02	1.6024E-02	4.3309E-04	AU
		200.0000	7.5850	0.0200	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68428E-01	6.7980E-02	1.8373E-03	
												Ra-223	5.85536E-02	1.4829E-02	4.0078E-04	
												Ra-226	1.77569E-01	4.4970E-02	1.2154E-03	
												Ra-228	7.48699E-01	1.8961E-01	5.1246E-03	
												Th-227 [1.3971E-14 kg]	6.32740E-02	1.6024E-02	4.3309E-04	
												Th-228 [7.3424E-12 kg]	8.79618E-01	2.2277E-01	6.0207E-03	
												Th-230 [1.2765E-07 kg]	3.91648E-01	9.9186E-02	2.6807E-03	
												Th-232 [4.6587E-02 kg]	7.48699E-01	1.8961E-01	5.1246E-03	
												U-234 [1.2658E-05 kg]	1.14657E+01	2.9037E+00	7.8479E-02	
												U-Nat [1.7737E-01 kg]	1.83982E+01	4.6594E+00	1.2593E-01	
												Subtotal		8.4241E+00	2.2768E-01	
												Total		8.4241E+00	2.2768E-01	
												Source [2.2397E-01 kg]				
9237/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	7166.7599	0.0020	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32738E-02	1.6693E-02	4.5117E-04	AU
		200.0000	7.9000	0.2000	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68427E-01	7.0818E-02	1.9140E-03	
												Ra-223	5.85546E-02	1.5448E-02	4.1752E-04	
												Ra-226	1.77577E-01	4.6849E-02	1.2662E-03	
												Ra-228	7.48692E-01	1.9752E-01	5.3385E-03	
												Th-227 [1.4554E-14 kg]	6.32738E-02	1.6693E-02	4.5117E-04	
												Th-228 [7.6489E-12 kg]	8.79624E-01	2.3207E-01	6.2721E-03	
												Th-230 [1.3298E-07 kg]	3.91645E-01	1.0333E-01	2.7926E-03	
												Th-232 [4.8532E-02 kg]	7.48692E-01	1.9752E-01	5.3385E-03	
												U-234 [1.3186E-05 kg]	1.14656E+01	3.0249E+00	8.1755E-02	
												U-Nat [1.8477E-01 kg]	1.83986E+01	4.8540E+00	1.3119E-01	
												Subtotal		8.7758E+00	2.3719E-01	
												Total		8.7758E+00	2.3719E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-988

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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) 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	
												Source [2.3332E-01 kg]				
9238/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6073.6022	0.0001	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32735E-02	1.4134E-02	3.8200E-04	AU
		200.0000	6.6950	0.0100	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68432E-01	5.9962E-02	1.6206E-03	
												Ra-223	5.85545E-02	1.3080E-02	3.5351E-04	
												Ra-226	1.77580E-01	3.9668E-02	1.0721E-03	
												Ra-228	7.48698E-01	1.6724E-01	4.5201E-03	
												Th-227 [1.2323E-14 kg]	6.32735E-02	1.4134E-02	3.8200E-04	
												Th-228 [6.4763E-12 kg]	8.79618E-01	1.9649E-01	5.3105E-03	
												Th-230 [1.1260E-07 kg]	3.91650E-01	8.7487E-02	2.3645E-03	
												Th-232 [4.1092E-02 kg]	7.48698E-01	1.6724E-01	4.5201E-03	
												U-234 [1.1165E-05 kg]	1.14656E+01	2.5612E+00	6.9221E-02	
												U-Nat [1.5645E-01 kg]	1.83990E+01	4.1100E+00	1.1108E-01	
												Subtotal		7.4306E+00	2.0083E-01	
												Total		7.4306E+00	2.0083E-01	
												Source [1.9755E-01 kg]				
9239/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6985.3230	0.0001	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32739E-02	1.6269E-02	4.3969E-04	AU
		200.0000	7.7000	0.0100	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68427E-01	6.9016E-02	1.8653E-03	
												Ra-223	5.85538E-02	1.5055E-02	4.0689E-04	
												Ra-226	1.77580E-01	4.5658E-02	1.2340E-03	
												Ra-228	7.48698E-01	1.9250E-01	5.2027E-03	
												Th-227 [1.4184E-14 kg]	6.32739E-02	1.6269E-02	4.3969E-04	
												Th-228 [7.4543E-12 kg]	8.79623E-01	2.2616E-01	6.1125E-03	
												Th-230 [1.2960E-07 kg]	3.91654E-01	1.0070E-01	2.7216E-03	
												Th-232 [4.7297E-02 kg]	7.48698E-01	1.9250E-01	5.2027E-03	
												U-234 [1.2851E-05 kg]	1.14657E+01	2.9480E+00	7.9675E-02	
												U-Nat [1.8007E-01 kg]	1.83983E+01	4.7305E+00	1.2785E-01	
												Subtotal		8.5526E+00	2.3115E-01	
												Total		8.5526E+00	2.3115E-01	
												Source [2.2738E-01 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9247/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	5143.7378	0.0001	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32746E-02	1.1957E-02	3.2317E-04	AU
		200.0000	5.6700	0.0100	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68433E-01	5.0727E-02	1.3710E-03	
												Ra-223	5.85540E-02	1.1065E-02	2.9906E-04	
												Ra-226	1.77573E-01	3.3557E-02	9.0694E-04	
												Ra-228	7.48695E-01	1.4148E-01	3.8239E-03	
												Th-227 [1.0425E-14 kg]	6.32746E-02	1.1957E-02	3.2317E-04	
												Th-228 [5.4788E-12 kg]	8.79622E-01	1.6623E-01	4.4926E-03	
												Th-230 [9.5254E-08 kg]	3.91646E-01	7.4011E-02	2.0003E-03	
												Th-232 [3.4763E-02 kg]	7.48695E-01	1.4148E-01	3.8239E-03	
												U-234 [9.4451E-06 kg]	1.14657E+01	2.1667E+00	5.8560E-02	
												U-Nat [1.3235E-01 kg]	1.83983E+01	3.4768E+00	9.3968E-02	
												Subtotal		6.2860E+00	1.6989E-01	
												Total		6.2860E+00	1.6989E-01	
												Source [1.6712E-01 kg]				
9248/GTEOSI	19 Strong Tight Container Loaded in Gondola	3.3980	3247.7216	0.0002	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	3.3980	100	OXIDES/NONE	0.00	Ac-227	6.32742E-02	7.5184E-03	2.0320E-04	AU
		120.0000	3.5800	0.0200	<2.2000E+02	<2.2000E+03		120.0000				Pa-231	2.68424E-01	3.1895E-02	8.6202E-04	
												Ra-223	5.85536E-02	6.9575E-03	1.8804E-04	
												Ra-226	1.77573E-01	2.1100E-02	5.7026E-04	
												Ra-228	7.48704E-01	8.8963E-02	2.4044E-03	
												Th-227 [6.5548E-15 kg]	6.32742E-02	7.5184E-03	2.0320E-04	
												Th-228 [3.4449E-12 kg]	8.79612E-01	1.0452E-01	2.8248E-03	
												Th-230 [5.9893E-08 kg]	3.91665E-01	4.6539E-02	1.2578E-03	
												Th-232 [2.1858E-02 kg]	7.48704E-01	8.8963E-02	2.4044E-03	
												U-234 [5.9389E-06 kg]	1.14657E+01	1.3624E+00	3.6821E-02	
												U-Nat [8.3218E-02 kg]	1.83984E+01	2.1861E+00	5.9085E-02	
												Subtotal		3.9525E+00	1.0682E-01	
												Total		3.9525E+00	1.0682E-01	
												Source [1.0508E-01 kg]				
Shipment Totals		43.0418	50022.1698									Source [1.6273E+00 kg]		6.1208E+01	1.6543E+00	
		1520.0000	55.1400													

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number

0840-01-988

PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-988
EnergySolutions, LLC

	Total Activity		
Isotope	**(MBq)**	**(mCi)**	**(Ci)**
Ac-227	1.1643E-01	3.1467E-03	3.1467E-06
Pa-231	4.9392E-01	1.3349E-02	1.3349E-05
Ra-223	1.0774E-01	2.9120E-03	2.9120E-06
Ra-226	3.2675E-01	8.8310E-03	8.8310E-06
Ra-228	1.3777E+00	3.7234E-02	3.7234E-05
Th-227	1.1643E-01	3.1467E-03	3.1467E-06
Th-228	1.6186E+00	4.3745E-02	4.3745E-05
Th-230	7.2066E-01	1.9477E-02	1.9477E-05
Th-232	1.3777E+00	3.7234E-02	3.7234E-05
U-234	2.1098E+01	5.7020E-01	5.7020E-04
U-Nat	3.3854E+01	9.1498E-01	9.1498E-04

Straight Bill of Lading

Shipper	MHF-LS For GTE Operations Support Incorporated 140 Contiague Rock Road Hicksville, NY 11369	Date: 11/7/2006
Consigned to	MHF-LS @ New York-Atlantic Rail Spur Hicksville, NY 11369	Load in Gondola # MHFX
Emergency Contact:	CHEMTREC 800-424-9300	5288

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9234	15340
	Liner	9235	16680
			Total:
			32020
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 17.7861 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 11/7/2006

Consigned to MHF-LS @ New York-Atlantic Rail Spur
Hicksville, NY 11369

Load in Gondola # MHFX 5288

Emergency Contact: CHEMTREC 800-424-9300

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9236	15170
	Liner	9237	15800
			Total:
			30970
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 17.1999 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 11/7/2006

Consigned to MHF-LS @ New York-Atlantic Rail Spur
Hicksville, NY 11369

Load in Gondola # MHFX 5288

Emergency Contact: CHEMTREC 800-424-9300

TR: 38 TR 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9238	13390
	Liner	9239	15400
			Total:
			28790
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227,U238, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-235,		
	Total Activity: 15.9829 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 11/7/2006

Consigned to MHF-LS @ New York-Atlantic Rail Spur
Hicksville, NY 11369

Load in Gondola # MHFX 5288

Emergency Contact: CHEMTREC 800-424-9300

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
1	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9247	11340
	Liner	9248	7160
			Total:
			18500
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 10.2385 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-988

Front

9247
11340-lbs

9248
7160-lbs

Rear

MHF-LS Qualified Technician
Signature [signature]
Shipment Date 11-7-06

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-988

Front

9238
13390-lbs

9239
15400-lbs

Rear

MHF-LS Qualified Technician
Signature _____
Shipment Date 11-7-96

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-988

Front

9236
15170-lbs

9237
15800-lbs

Rear

MHF-LS Qualified Technician
Signature [signature]
Shipment Date 11-7-96

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-988

Front

9234
15340-lbs

9235
16680-lbs

Rear

MHF-LS Qualified Technician
Signature _____
Shipment Date 11-7-06

Attachment 5.15
RAILCAR INSPECTION FORM

Shipment Number	Carrier	Railcar Number
0840-01-988	NEW YORK & ATLANTIC/LIRR	MHFX - 5288

Item	SAT	UNSAT	Criteria	Comments
Coupler	☑	☐	Hardware intact, no cracks or broken welds, latching mechanism works properly, no loose or damaged parts	
Suspension	☑	☐	Hardware intact, no visible cracks or broken welds, coil springs seated and intact, inner and outer bearings intact and seated properly	
Wheel & Axle Assembly	☑	☐	Overall condition, no cracks or damaged areas on wheel surfaces, hubs centered, bolting intact, rims not bent or cracked	
Frame & Undercarriage	☑	☐	Main beams straight and centered, no major bends or damage, welds intact, no cracks	
Floors & Walls (Gondola, Boxcar)	☑	☐	No damage with open holes, punch throughs, ect. No rust damage, seams and welds intact, no rotting or other material problems, structurally sound	
Attachment Points or Tie Downs	☑	☐	Tie down hardware straight and intact, no cracks on or around attachment hardware, mechanical clips or latches operable and complete	
Doors (Boxcar Only)	☑	☐	Can be closed and secured properly, lubricated properly, rollers and tracks in operable condition, no loose or missing hardware, sealing surfaces intact and seals in serviceable condition	
Seals and Gasket	☐	☐	Seal Flanges intact with no dents or bends that affect sealing capability, gaskets pliable and in serviceable condition, no torn or missing areas, gasket appropriate to meet sealing requirements	
Seams (Gondola, Boxcar)	☑	☐	Seams intact, welds visibly sufficient, all corners and mating interfaces caulked and sealed properly	
Drains	☑	☐	Drains plugged or sealed properly, verify threaded plugs are tack welded or otherwise disabled, all other holes closed and sealed	
Brakes	☑	☐	Visibly inspect brake shoes, minimum 1" contact surface on all shoes, hoses and piping (tubing) mechanically sound, no missing or loose hardware, valves operate freely, no kinks or obstructions in piping or hoses	
Paint and Lettering	☑	☐	Overall good condition of exterior surfaces, identification numbering legible and intact, areas for placards or labels intact and structurally sound (Wood or metal panels)	
Bracing	☐	☐	Bracing and shoring must be sufficient to prevent shifting of lading during conditions normally incident to transportation	

MHF-LS Qualified Technician Signature _____

Shipment Date 11-7-06

Attachment 5.10
TRANSPORT VEHICLE RELEASE CHECKLIST

Shipment Number- 0840-01-988

Truck Number- 38

Trailer Number- 225

A qualified MHF-LS shipping technician shall verify that each item listed is satisfactory and then place a Check Mark in the corresponding box.

1. Driver possesses a valid driver's license with a HAZMAT endorsement ☑
2. Driver possesses a valid copy of a "Research and Special Programs Administration" U.S. DOT Hazmat Registration Certificate ☑
3. If manifested on a Hazardous Waste Manifest, ensure the carrier possesses a current EPA ID # ☐
4. Lamps are operable ☑
   - Headlights and Brights
   - Warning Lights and Flashers
   - Brake Lights
5. Coupling devices are intact ☑
6. Tires are sufficient ☑
   - No fabric is exposed through tread or sidewall
   - Front wheel tires must have tread pattern to a depth of ≥1/8 inch
   - Other tires must have tread pattern to a depth of ≥1/16 inch
   - Re-treaded tires are not authorized
7. Horn is operable ☑
8. Windshield wipers are operable ☑
9. Rear-vision mirrors are adequate (1 on each side) ☑
10. Emergency equipment is on-hand and accessible ☑
    - Fire extinguisher
    - Warning devices- bi-directional emergency reflectors, triangles (3), or liquid burning flares
11. General vehicle integrity is satisfactory ☑
    - Frame appears undamaged
    - Flooring is sufficient to support load
    - If a closed transport vehicle, vehicle is closed
    - Vehicle is otherwise in unimpaired physical condition
12. Vehicle truck and trailer have current DOT inspection stickers on both components (Good for 1 year from date performed) ☑
13. Vehicle is properly placarded (Exclusive Use LSA, Yellow III and HRCQ only) ☐
14. Shoring, strapping, blocking and bracing is adequate to prevent shifting of lading ☑

MHF-LS Qualified Technician Signature [signature]
Shipment Date 11-7-06

Ship nt Survey

Survey Number: GTE051-06-00170 Date: 10-26-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9248 Storage Bin: 18 Gross Weight: 7160 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N		A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

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Maximum Contact Dose Rate: 0.02 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	50	N/A	500
Smear #				
1	0	<MDA	5	<MDA
2	0		0	
3	0		8	
4	1		10	
5	1		11	
6	0		6	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

Ship Survey

Survey Number: GTE051-06-00169 Date: 10-26-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9247 Storage Bin: 18 Gross Weight: 11340 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247				N		196118
Probe #	N/A				A		N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 ~~25~~ %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

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Maximum Contact Dose Rate: 0.01 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	500	N/A	5000
Smear #				
1	1	<MDA	6	<MDA
2	1		7	
3	0		4	
4	1		8	
5	2		3	
6	0		9	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

Ship[illegible]t Survey

Survey Number: GTE031-06-00148 Date: 10-24-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9239 Storage Bin: 19 Gross Weight: 15,400 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247						19618
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

N/A

COPY

Maximum Contact Dose Rate: 0.01 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	0	<MDA	10	<MDA
2	1		6	
3	1		3	
4	0		7	
5	0		4	
6	0		9	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

Ship it Survey

Survey Number: GTE051-06-00147 Date: 10-24-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9238 Storage Bin: 19 Gross Weight: 13390 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247						196118
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.01 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	600
Smear #				
1	0	< MDA	6	< MDA
2	1		0	
3	0		3	
4	0		5	
5	0		8	
6	1		2	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner

Surveyor Name

MCh

Surveyor Signature

MCh

Supervisor Approval

Ship nt Survey

Survey Number: GTE051-06-00129 Date: 10-20-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9237 Storage Bin: 18 Gross Weight: 15,800 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N/A				196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.2 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	1	<MDA	10	<MDA
2	0		7	
3	0		4	
4	0		6	
5	0		9	
6	0		3	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

MCh
Surveyor Signature

MCh
Supervisor Approval

Ship nt Survey

Survey Number: GTE051-06-00128 Date: 10-20-06 Time: 0800

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9236 Storage Bin: 18 Gross Weight: 15170 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247				N/A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.02 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	600
Smear #				
1	0	<MDA	4	<MDA
2	1		7	
3	0		3	
4	0		0	
5	1		9	
6	1		8	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

MCh
Surveyor Signature

MCh
Supervisor Approval

Ship ıt Survey

Survey Number: GTE01-06-00109 Date: 10-16-06 Time: 1530

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9235 Storage Bin: 17 Gross Weight: 16680 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N		A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.02 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	1	<MDA	4	<MDA
2	0		0	
3	0		6	
4	0		5	
5	0		7	
6	0		10	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

MCh
Surveyor Signature

MCh
Supervisor Approval

Ship ıt Survey

Survey Number: GTE051 -06- 00108 Date: 10-16-06 Time: 1530

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9234 Storage Bin: 17 Gross Weight: 15340 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N		A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 uR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.02 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	0	<MDA	6	<MDA
2	0		0	
3	1		4	
4	0		6	
5	0		5	
6	0		3	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

Gross WT 15,340-lbs

	BAG#
Container #	9248
Take off container wt	

Shipping Check Sheet (For Form 540)

weight lbs	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	7.5184E-03	2.0320E-04	2.0320E-07	grams	kg
grams		spec activity	pCi/g				2.8222E-09	2.8222E-12
3214320		7.2000E+01	Half life					
weight lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
7080		2.6818E-01	2.6818E-01	3.1895E-02	8.6202E-04	8.6202E-07	grams	kg
grams		spec activity	Half life				1.8341E-05	1.8341E-08
3214320		4.7000E-02	32.76 yrs					
weight lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		5.8501E-02	5.8501E-02	6.9575E-03	1.8804E-04	1.8804E-07	grams	kg
grams		spec activity	Half life				3.6871E-12	3.6871E-15
3214320		5.1000E+04	11.434 days					
weight lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		2.4437E-01	1.7741E-01	2.1100E-02	5.7026E-04	5.7026E-07	grams	kg
grams		spec activity	Half life				5.7026E-07	5.7026E-10
3214320		1.0000E+00	1.6 Thousand yrs					
weight lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		5.2736E-01	7.4802E-01	8.8962E-02	2.4044E-03	2.4044E-06	grams	kg
grams		spec activity	Half life				8.9051E-09	8.9051E-12
3214320		2.7000E+02	5.75 yrs					
weight lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		6.3217E-02	6.3217E-02	7.5184E-03	2.0320E-04	2.0320E-07	grams	kg
grams		spec activity	Half life				6.5548E-12	6.5548E-15
3214320		3.1000E+04	18.718 days					
weight lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		4.8660E-01	8.7880E-01	1.0452E-01	2.8247E-03	2.8247E-06	grams	kg
grams		spec activity	Half life				3.4448E-09	3.4448E-12
3214320		8.2000E+02	1.913 yrs					
weight lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		5.2736E-01	3.9130E-01	4.6537E-02	1.2578E-03	1.2578E-06	grams	kg
grams		spec activity	Half life				5.9893E-05	5.9893E-08
3214320		2.1000E-02	77 Thousand yrs					
weight lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		5.2736E-01	7.4802E-01	8.8962E-02	2.4044E-03	2.4044E-06	grams	kg
grams		spec activity	Half life				2.1858E+01	2.1858E-02
3214320		1.1000E-07	1.4+4 Million yrs					
weight lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		1.2900E+01	1.1455E+01	1.3624E+00	3.6821E-02	3.6821E-05	grams	kg
grams		spec activity	Half life				5.9389E-03	5.9389E-06
3214320		6.2000E-03	244.5 Thousand yrs					
weight lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		7.5960E-01	9.7260E-01	1.1567E-01	3.1263E-03	3.1263E-06	grams	kg
grams		spec activity	Half life				1.4210E+00	1.4210E-03
3214320		2.2000E-06	703.8 Million yrs					
weight lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
7080		1.2900E+01	1.7409E+01	2.0705E+00	5.5958E-02	5.5958E-05	grams	kg
grams		spec activity	Half life				1.6458E+02	1.6458E-01
3214320		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
7080		2.9326E+01	3.3170E+01	3.9525E+00	1.0682E-01	1.0682E-04	grams	kg
Volume			pCi/g	541 will be < than the 540 (MDA not added)			1.4210E+00	1.8645E-01
120				**data for NORM**				
	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	2.1861E+00	5.9085E-02	5.9085E-05		kg
		spec activity						8.3218E-02
		7.1000E-07						

U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	3.9525E+00	1.0682E-01	1.0682E-04		kg total
							1.0508E-01

BAG#
Container # 9247
Take off container wt

Shipping Check Sheet (For Form 540)

weight (lbs)	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.1957E-02	3.2317E-04	3.2317E-07	grams	kg
grams		specific activity	pCi/g				4.4884E-09	4.4884E-12
5112040		7.2000E+01	Half life					
weight (lbs)	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
11260		2.6818E-01	2.6818E-01	5.0725E-02	1.3710E-03	1.3710E-06	grams	kg
grams		specific activity	Half life				2.9169E-05	2.9169E-08
5112040		4.7000E-02	32.76 yrs					
weight (lbs)	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		5.8501E-02	5.8501E-02	1.1065E-02	2.9906E-04	2.9906E-07	grams	kg
grams		specific activity	Half life				5.8639E-12	5.8639E-15
5112040		5.1000E+04	11.434 days					
weight (lbs)	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		2.4437E-01	1.7741E-01	3.3557E-02	9.0694E-04	9.0694E-07	grams	kg
grams		specific activity	Half life				9.0694E-07	9.0694E-10
5112040		1.0000E+00	1.6 Thousand yrs					
weight (lbs)	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		5.2736E-01	7.4802E-01	1.4148E-01	3.8239E-03	3.8239E-06	grams	kg
grams		specific activity	Half life				1.4163E-08	1.4163E-11
5112040		2.7000E+02	5.75 yrs					
weight (lbs)	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		6.3217E-02	6.3217E-02	1.1957E-02	3.2317E-04	3.2317E-07	grams	kg
grams		specific activity	Half life				1.0425E-11	1.0425E-14
5112040		3.1000E+04	18.718 days					
weight (lbs)	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		4.8660E-01	8.7880E-01	1.6822E-01	4.4925E-03	4.4925E-06	grams	kg
grams		specific activity	Half life				5.4786E-09	5.4786E-12
5112040		8.2000E+02	1.913 yrs					
weight (lbs)	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		5.2736E-01	3.9130E-01	7.4012E-02	2.0003E-03	2.0003E-06	grams	kg
grams		specific activity	Half life				9.5254E-05	9.5254E-08
5112040		2.1000E-02	77 Thousand yrs					
weight (lbs)	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		5.2736E-01	7.4802E-01	1.4148E-01	3.8239E-03	3.8239E-06	grams	kg
grams		specific activity	Half life				3.4763E+01	3.4763E-02
5112040		1.1000E-07	1.4+4 Million yrs					
weight (lbs)	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		1.2900E+01	1.1455E+01	2.1867E+00	5.8560E-02	5.8560E-05	grams	kg
grams		specific activity	Half life				9.4451E-03	9.4451E-06
5112040		6.2000E-03	244.5 Thousand yrs					
weight (lbs)	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		7.5960E-01	9.7260E-01	1.8396E-01	4.9720E-03	4.9720E-06	grams	kg
grams		specific activity	Half life				2.2600E+00	2.2600E-03
5112040		2.2000E-06	703.8 Million yrs					
weight (lbs)	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11260		1.2900E+01	1.7409E+01	3.2929E+00	8.8996E-02	8.8996E-05	grams	kg
grams		specific activity	Half life				2.6175E+02	2.6175E-01
5112040		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight (lbs)		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
11260		2.9326E+01	3.3170E+01	6.2860E+00	1.6989E-01	1.6989E-04	grams	kg
volume (ml)			pCi/g	541 will be < than the 540 (MDA not added)			2.2600E+00	2.9653E-01
200								

data for NORM

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
		1.3660E+01	1.8382E+01	3.4768E+00	9.3968E-02	9.3968E-05	kg
		specific activity					1.3235E-01
		7.1000E-07					

U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
	2.9326E+01	3.3170E+01	6.2860E+00	1.6989E-01	1.6989E-04	kg total
						1.6712E-01

BAG#

Container # 9239

Take off container wt

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.6269E-02	4.3969E-04	4.3969E-07	grams	kg
grams		specific activity	pCi/g				6.1068E-09	6.1068E-12
6955280		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15320		2.6818E-01	2.6818E-01	6.9015E-02	1.8653E-03	1.8653E-06	grams	kg
grams		specific activity	Half life				3.9687E-05	3.9687E-08
6955280		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		5.8501E-02	5.8501E-02	1.5055E-02	4.0689E-04	4.0689E-07	grams	kg
grams		specific activity	Half life				7.9783E-12	7.9783E-15
6955280		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		2.4437E-01	1.7741E-01	4.5657E-02	1.2340E-03	1.2340E-06	grams	kg
grams		specific activity	Half life				1.2340E-06	1.2340E-09
6955280		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		5.2736E-01	7.4802E-01	1.9250E-01	5.2027E-03	5.2027E-06	grams	kg
grams		specific activity	Half life				1.9269E-08	1.9269E-11
6955280		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		6.3217E-02	6.3217E-02	1.6269E-02	4.3969E-04	4.3969E-07	grams	kg
grams		specific activity	Half life				1.4184E-11	1.4184E-14
6955280		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		4.8660E-01	8.7880E-01	2.2615E-01	6.1123E-03	6.1123E-06	grams	kg
grams		specific activity	Half life				7.4540E-09	7.4540E-12
6955280		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		5.2736E-01	3.9130E-01	1.0070E-01	2.7216E-03	2.7216E-06	grams	kg
grams		specific activity	Half life				1.2960E-04	1.2960E-07
6955280		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		5.2736E-01	7.4802E-01	1.9250E-01	5.2027E-03	5.2027E-06	grams	kg
grams		specific activity	Half life				4.7297E+01	4.7297E-02
6955280		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		1.2900E+01	1.1455E+01	2.9480E+00	7.9675E-02	7.9675E-05	grams	kg
grams		specific activity	Half life				1.2851E-02	1.2851E-05
6955280		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		7.5960E-01	9.7260E-01	2.5029E-01	6.7647E-03	6.7647E-06	grams	kg
grams		specific activity	Half life				3.0749E+00	3.0749E-03
6955280		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15320		1.2900E+01	1.7409E+01	4.4802E+00	1.2109E-01	1.2109E-04	grams	kg
grams		specific activity	Half life				3.5613E+02	3.5613E-01
6955280		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
15320		2.9326E+01	3.3170E+01	8.5525E+00	2.3115E-01	2.3115E-04	grams	kg
volume-ml			pCi/g	541 will be < than the 540 (MDA not added)			3.0749E+00	4.0344E-01
200			data for NORM					
	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.7304E+00	1.2785E-01	1.2785E-04		kg
		specific activity						1.8007E-01
		7.1000E-07						

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
	2.9326E+01	3.3170E+01	8.5525E+00	2.3115E-01	2.3115E-04	kg total
						2.2738E-01

BAG#

Container # 9238

Take off container wt

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.4134E-02	3.8200E-04	3.8200E-07	grams	kg
grams		spec activity	pCi/g				5.3056E-09	5.3056E-12
6042740		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
13310		2.6818E-01	2.6818E-01	5.9961E-02	1.6206E-03	1.6206E-06	grams	kg
grams		spec activity	Half life				3.4480E-05	3.4480E-08
6042740		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		5.8501E-02	5.8501E-02	1.3080E-02	3.5351E-04	3.5351E-07	grams	kg
grams		spec activity	Half life				6.9315E-12	6.9315E-15
6042740		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		2.4437E-01	1.7741E-01	3.9666E-02	1.0721E-03	1.0721E-06	grams	kg
grams		spec activity	Half life				1.0721E-06	1.0721E-09
6042740		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		5.2736E-01	7.4802E-01	1.6724E-01	4.5201E-03	4.5201E-06	grams	kg
grams		spec activity	Half life				1.6741E-08	1.6741E-11
6042740		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		6.3217E-02	6.3217E-02	1.4134E-02	3.8200E-04	3.8200E-07	grams	kg
grams		spec activity	Half life				1.2323E-11	1.2323E-14
6042740		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		4.8660E-01	8.7880E-01	1.9648E-01	5.3104E-03	5.3104E-06	grams	kg
grams		spec activity	Half life				6.4760E-09	6.4760E-12
6042740		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		5.2736E-01	3.9130E-01	8.7487E-02	2.3645E-03	2.3645E-06	grams	kg
grams		spec activity	Half life				1.1260E-04	1.1260E-07
6042740		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		5.2736E-01	7.4802E-01	1.6724E-01	4.5201E-03	4.5201E-06	grams	kg
grams		spec activity	Half life				4.1092E+01	4.1092E-02
6042740		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		1.2900E+01	1.1455E+01	2.5612E+00	6.9221E-02	6.9221E-05	grams	kg
grams		spec activity	Half life				1.1165E-02	1.1165E-05
6042740		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		7.5960E-01	9.7260E-01	2.1746E-01	5.8772E-03	5.8772E-06	grams	kg
grams		spec activity	Half life				2.6714E+00	2.6714E-03
6042740		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13310		1.2900E+01	1.7409E+01	3.8923E+00	1.0520E-01	1.0520E-04	grams	kg
grams		spec activity	Half life				3.0941E+02	3.0941E-01
6042740		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
13310		2.9326E+01	3.3170E+01	7.4304E+00	2.0082E-01	2.0082E-04	grams	kg
volume-cc			pCi/g	541 will be < than the 540 (MDA not added)			2.6714E+00	3.5051E-01
200								

data for NORM

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
		1.3660E+01	1.8382E+01	4.1098E+00	1.1108E-01	1.1108E-04	kg
		spec activity					1.5644E-01
		7.1000E-07					

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
	2.9326E+01	3.3170E+01	7.4304E+00	2.0082E-01	2.0082E-04	kg total
						1.9755E-01

BAG#
Container # 9237
Take off container wt

Shipping Check Sheet (For Form 540)

	Ac-227		corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.6693E-02	4.5117E-04	4.5117E-07	grams	kg
grams			pCi/g				6.2663E-09	6.2663E-12
7136880		7.2000E+01	Half life					
	Pa-231		21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15720		2.6818E-01	2.6818E-01	7.0817E-02	1.9140E-03	1.9140E-06	grams	kg
grams			Half life				4.0723E-05	4.0723E-08
7136880		4.7000E-02	32.76 yrs					
	Ra-223			activity mBq	activity mCi	activity Ci	SNM	source
15720		5.8501E-02	5.8501E-02	1.5448E-02	4.1751E-04	4.1751E-07	grams	kg
grams			Half life				8.1866E-12	8.1866E-15
7136880		5.1000E+04	11.434 days					
	Ra-226			activity mBq	activity mCi	activity Ci	SNM	source
15720		2.4437E-01	1.7741E-01	4.6849E-02	1.2662E-03	1.2662E-06	grams	kg
grams			Half life				1.2662E-06	1.2662E-09
7136880		1.0000E+00	1.6 Thousand yrs					
	Ra-228			activity mBq	activity mCi	activity Ci	SNM	source
15720		5.2736E-01	7.4802E-01	1.9753E-01	5.3385E-03	5.3385E-06	grams	kg
grams			Half life				1.9772E-08	1.9772E-11
7136880		2.7000E+02	5.75 yrs					
	Th-227			activity mBq	activity mCi	activity Ci	SNM	source
15720		6.3217E-02	6.3217E-02	1.6693E-02	4.5117E-04	4.5117E-07	grams	kg
grams			Half life				1.4554E-11	1.4554E-14
7136880		3.1000E+04	18.718 days					
	Th-228			activity mBq	activity mCi	activity Ci	SNM	source
15720		4.8660E-01	8.7880E-01	2.3206E-01	6.2719E-03	6.2719E-06	grams	kg
grams			Half life				7.6486E-09	7.6486E-12
7136880		8.2000E+02	1.913 yrs					
	Th-230			activity mBq	activity mCi	activity Ci	SNM	source
15720		5.2736E-01	3.9130E-01	1.0333E-01	2.7926E-03	2.7926E-06	grams	kg
grams			Half life				1.3298E-04	1.3298E-07
7136880		2.1000E-02	77 Thousand yrs					
	Th-232			activity mBq	activity mCi	activity Ci	SNM	source
15720		5.2736E-01	7.4802E-01	1.9753E-01	5.3385E-03	5.3385E-06	grams	kg
grams			Half life				4.8532E+01	4.8532E-02
7136880		1.1000E-07	1.4+4 Million yrs					
	U-234			activity mBq	activity mCi	activity Ci	SNM	source
15720		1.2900E+01	1.1455E+01	3.0249E+00	8.1755E-02	8.1755E-05	grams	kg
grams			Half life				1.3186E-02	1.3186E-05
7136880		6.2000E-03	244.5 Thousand yrs					
	U-235			activity mBq	activity mCi	activity Ci	SNM	source
15720		7.5960E-01	9.7260E-01	2.5683E-01	6.9414E-03	6.9414E-06	grams	kg
grams			Half life				3.1552E+00	3.1552E-03
7136880		2.2000E-06	703.8 Million yrs					
	U-238			activity mBq	activity mCi	activity Ci	SNM	source
15720		1.2900E+01	1.7409E+01	4.5971E+00	1.2425E-01	1.2425E-04	grams	kg
grams			Half life				3.6543E+02	3.6543E-01
7136880		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

			corrected	activity mBq	activity mCi	activity Ci	SNM	source
15720		2.9326E+01	3.3170E+01	8.7758E+00	2.3718E-01	2.3718E-04	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			3.1552E+00	4.1398E-01
200								

data for NORM

	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.8540E+00	1.3119E-01	1.3119E-04		kg
								1.8477E-01
		7.1000E-07						

	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	8.7758E+00	2.3718E-01	2.3718E-04		kg total
								2.3332E-01

BAG#

Container # 9236

Take off container wt

Shipping Check Sheet (For Form 540)

	Ac-227		corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.6024E-02	4.3309E-04	4.3309E-07	grams	kg
grams			pCi/g				6.0152E-09	6.0152E-12
6850860		7.2000E+01	Half life					
	Pa-231		21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15090		2.6818E-01	2.6818E-01	6.7979E-02	1.8373E-03	1.8373E-06	grams	kg
grams			Half life				3.9091E-05	3.9091E-08
6850860		4.7000E-02	32.76 yrs					
	Ra-223			activity mBq	activity mCi	activity Ci	SNM	source
15090		5.8501E-02	5.8501E-02	1.4829E-02	4.0078E-04	4.0078E-07	grams	kg
grams			Half life				7.8585E-12	7.8585E-15
6850860		5.1000E+04	11.434 days					
	Ra-226			activity mBq	activity mCi	activity Ci	SNM	source
15090		2.4437E-01	1.7741E-01	4.4971E-02	1.2154E-03	1.2154E-06	grams	kg
grams			Half life				1.2154E-06	1.2154E-09
6850860		1.0000E+00	1.6 Thousand yrs					
	Ra-228			activity mBq	activity mCi	activity Ci	SNM	source
15090		5.2736E-01	7.4802E-01	1.8961E-01	5.1246E-03	5.1246E-06	grams	kg
grams			Half life				1.8980E-08	1.8980E-11
6850860		2.7000E+02	5.75 yrs					
	Th-227			activity mBq	activity mCi	activity Ci	SNM	source
15090		6.3217E-02	6.3217E-02	1.6024E-02	4.3309E-04	4.3309E-07	grams	kg
grams			Half life				1.3971E-11	1.3971E-14
6850860		3.1000E+04	18.718 days					
	Th-228			activity mBq	activity mCi	activity Ci	SNM	source
15090		4.8660E-01	8.7880E-01	2.2276E-01	6.0205E-03	6.0205E-06	grams	kg
grams			Half life				7.3421E-09	7.3421E-12
6850860		8.2000E+02	1.913 yrs					
	Th-230			activity mBq	activity mCi	activity Ci	SNM	source
15090		5.2736E-01	3.9130E-01	9.9187E-02	2.6807E-03	2.6807E-06	grams	kg
grams			Half life				1.2765E-04	1.2765E-07
6850860		2.1000E-02	77 Thousand yrs					
	Th-232			activity mBq	activity mCi	activity Ci	SNM	source
15090		5.2736E-01	7.4802E-01	1.8961E-01	5.1246E-03	5.1246E-06	grams	kg
grams			Half life				4.6587E+01	4.6587E-02
6850860		1.1000E-07	1.4+4 Million yrs					
	U-234			activity mBq	activity mCi	activity Ci	SNM	source
15090		1.2900E+01	1.1455E+01	2.9037E+00	7.8479E-02	7.8479E-05	grams	kg
grams			Half life				1.2658E-02	1.2658E-05
6850860		6.2000E-03	244.5 Thousand yrs					
	U-235			activity mBq	activity mCi	activity Ci	SNM	source
15090		7.5960E-01	9.7260E-01	2.4654E-01	6.6632E-03	6.6632E-06	grams	kg
grams			Half life				3.0287E+00	3.0287E-03
6850860		2.2000E-06	703.8 Million yrs					
	U-238			activity mBq	activity mCi	activity Ci	SNM	source
15090		1.2900E+01	1.7409E+01	4.4129E+00	1.1927E-01	1.1927E-04	grams	kg
grams			Half life				3.5079E+02	3.5079E-01
6850860		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

			corrected	activity mBq	activity mCi	activity Ci	SNM	source
15090		2.9326E+01	3.3170E+01	8.4241E+00	2.2768E-01	2.2768E-04	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			3.0287E+00	3.9739E-01
200			data for NORM					
	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.6594E+00	1.2593E-01	1.2593E-04		kg
								1.7737E-01
		7.1000E-07						

	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	8.4241E+00	2.2768E-01	2.2768E-04		kg total
								2.2397E-01

BAG#

Container # 9235

Take off container wt

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.7628E-02	4.7643E-04	4.7643E-07	grams	kg
grams		spec activity	pCi/g				6.6171E-09	6.6171E-12
7536400		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
16600		2.6818E-01	2.6818E-01	7.4782E-02	2.0211E-03	2.0211E-06	grams	kg
grams		spec activity	Half life				4.3003E-05	4.3003E-08
7536400		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		5.8501E-02	5.8501E-02	1.6313E-02	4.4089E-04	4.4089E-07	grams	kg
grams		spec activity	Half life				8.6448E-12	8.6448E-15
7536400		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		2.4437E-01	1.7741E-01	4.9471E-02	1.3371E-03	1.3371E-06	grams	kg
grams		spec activity	Half life				1.3371E-06	1.3371E-09
7536400		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		5.2736E-01	7.4802E-01	2.0858E-01	5.6374E-03	5.6374E-06	grams	kg
grams		spec activity	Half life				2.0879E-08	2.0879E-11
7536400		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		6.3217E-02	6.3217E-02	1.7628E-02	4.7643E-04	4.7643E-07	grams	kg
grams		spec activity	Half life				1.5369E-11	1.5369E-14
7536400		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		4.8660E-01	8.7880E-01	2.4505E-01	6.6230E-03	6.6230E-06	grams	kg
grams		spec activity	Half life				8.0768E-09	8.0768E-12
7536400		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		5.2736E-01	3.9130E-01	1.0911E-01	2.9490E-03	2.9490E-06	grams	kg
grams		spec activity	Half life				1.4043E-04	1.4043E-07
7536400		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		5.2736E-01	7.4802E-01	2.0858E-01	5.6374E-03	5.6374E-06	grams	kg
grams		spec activity	Half life				5.1249E+01	5.1249E-02
7536400		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		1.2900E+01	1.1455E+01	3.1943E+00	8.6332E-02	8.6332E-05	grams	kg
grams		spec activity	Half life				1.3924E-02	1.3924E-05
7536400		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		7.5960E-01	9.7260E-01	2.7121E-01	7.3299E-03	7.3299E-06	grams	kg
grams		spec activity	Half life				3.3318E+00	3.3318E-03
7536400		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
16600		1.2900E+01	1.7409E+01	4.8545E+00	1.3120E-01	1.3120E-04	grams	kg
grams		spec activity	Half life				3.8589E+02	3.8589E-01
7536400		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
16600		2.9326E+01	3.3170E+01	9.2671E+00	2.5046E-01	2.5046E-04	grams	kg
Volume-ft³			pCi/g	541 will be < than the 540 (MDA not added)			3.3318E+00	4.3715E-01
200								

data for NORM

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	5.1257E+00	1.3853E-01	1.3853E-04		kg
		spec activity						1.9512E-01
		7.1000E-07						

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	9.2671E+00	2.5046E-01	2.5046E-04		kg total
								2.4638E-01

BAG#

Container # 9234

Take off container wt

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.6205E-02	4.3797E-04	4.3797E-07	grams	kg
grams		spec activity	pCi/g				6.0829E-09	6.0829E-12
6928040		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15260		2.6818E-01	2.6818E-01	6.8745E-02	1.8580E-03	1.8580E-06	grams	kg
grams		spec activity	Half life				3.9531E-05	3.9531E-08
6928040		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		5.8501E-02	5.8501E-02	1.4996E-02	4.0530E-04	4.0530E-07	grams	kg
grams		spec activity	Half life				7.9470E-12	7.9470E-15
6928040		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		2.4437E-01	1.7741E-01	4.5478E-02	1.2291E-03	1.2291E-06	grams	kg
grams		spec activity	Half life				1.2291E-06	1.2291E-09
6928040		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		5.2736E-01	7.4802E-01	1.9175E-01	5.1823E-03	5.1823E-06	grams	kg
grams		spec activity	Half life				1.9194E-08	1.9194E-11
6928040		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		6.3217E-02	6.3217E-02	1.6205E-02	4.3797E-04	4.3797E-07	grams	kg
grams		spec activity	Half life				1.4128E-11	1.4128E-14
6928040		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		4.8660E-01	8.7880E-01	2.2527E-01	6.0884E-03	6.0884E-06	grams	kg
grams		spec activity	Half life				7.4248E-09	7.4248E-12
6928040		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		5.2736E-01	3.9130E-01	1.0030E-01	2.7109E-03	2.7109E-06	grams	kg
grams		spec activity	Half life				1.2909E-04	1.2909E-07
6928040		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		5.2736E-01	7.4802E-01	1.9175E-01	5.1823E-03	5.1823E-06	grams	kg
grams		spec activity	Half life				4.7112E+01	4.7112E-02
6928040		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		1.2900E+01	1.1455E+01	2.9364E+00	7.9363E-02	7.9363E-05	grams	kg
grams		spec activity	Half life				1.2800E-02	1.2800E-05
6928040		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		7.5960E-01	9.7260E-01	2.4931E-01	6.7382E-03	6.7382E-06	grams	kg
grams		spec activity	Half life				3.0628E+00	3.0628E-03
6928040		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
15260		1.2900E+01	1.7409E+01	4.4626E+00	1.2061E-01	1.2061E-04	grams	kg
grams		spec activity	Half life				3.5474E+02	3.5474E-01
6928040		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
15260		2.9326E+01	3.3170E+01	8.5190E+00	2.3024E-01	2.3024E-04	grams	kg
[illegible]			pCi/g	541 will be < than the 540 (MDA not added)			3.0628E+00	4.0186E-01
200				data for NORM				
	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.7119E+00	1.2735E-01	1.2735E-04		kg
		spec activity						1.7936E-01
		7.1000E-07						

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	8.5190E+00	2.3024E-01	2.3024E-04		kg total
							2.2649E-01

L100243

ARRIVED: 11/20/2006

RECORD: 0840-01-0988

HAZ_MANIFEST:

VEHICLE_ID: MHFX5288

CUFEET: 1520

Waste Type: NORM

Conveyance Release Survey:

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 8

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

EPA MANIFEST NUMBER

5 SHIPPER – NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

Utah Generator Site Access Permit No: 020 500 1362

SHIPMENT NUMBER: MHFX-5268

CONTACT: Jean Agostinelli

6 CARRIER – Name and Address
Priority Transport Services, Inc
391 Anthony Street
Schenectady, NY 12306

CONTACT: Dispatch

SIGNATURE — Authorized carrier acknowledging waste receipt

SHIPPER ID NUMBER: 0840-01-988

☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 908 559-3686

EPA I D NUMBER: NYR000104978

SHIPPING DATE: 11/07/2006

TELEPHONE (Include Area Code): 800-235-0063

DATE: 11-7-06

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): 0840-01-988

9 CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

L100243

CONTACT: Shipping and Receiving

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

SIGNATURE — Authorized consignee acknowledging waste receipt

DATE: 11/27/06

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 requirements of 10 CFR Parts 20 and 61 or equivalent state regulations

AUTHORIZED SIGNATURE: [signature] TITLE: Broker DATE: 11-7-06

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8 5190E+00	2.3024E-01	NA	15340 LBS, 200 FT3	9234
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	9 2671E+00	2 5046E-01	NA	16680 LBS, 200 FT3	9235
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8 4241E+00	2.2768E-01	NA	15170 LBS; 200 FT3	9236
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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)
0840-01-968

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.7758E+00	2 3718E-01	NA	15800 LBS; 200 FT3	9237
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.4304E+00	2.0082E-01	NA	13390 LBS, 200 FT3	9238
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.5525E+00	2 3115E-01	NA	15400 LBS; 200 FT3	9239
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6 2860E+00	1.6989E-01	NA	11340 LBS; 200 FT3	9247
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3 9525E+00	1 0682E-01	NA	7160 LBS, 120 FT3	9248
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
8	m3 43.0418 ft3 1520.0000	kg 49731 8706 ton 54 8200	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	6 1208E+01	NP	NP	NP	NP	(kg)	1.6273E+00
mCi	1 6543E+00	NP	NP	NP	NP	(tons)	1.7938E-03

2 MANIFEST NUMBER 0840-01-988

3 PAGE 1 OF 4 PAGE(S)

4 SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-988

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
9234/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	5968 1074	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32742E-02	1 6205E-02	4 3797E-04	AU
		200 0000	7 6700	0 0200	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 8746E-02	1.8580E-03	
												Ra-223	5 85543E-02	1 4996E-02	4 0530E-04	
												Ra-226	1 77570E-01	4 5477E-02	1.2291E-03	
												Ra-228	7 48694E-01	1 9175E-01	5 1823E-03	
												Th-227 [1.4128E-14 kg]	6.32742E-02	1 6205E-02	4.3797E-04	
												Th-228 [7.4251E-12 kg]	8 79629E-01	2.2528E-01	6 0886E-03	
												Th-230 [1 2909E-07 kg]	3 91648E-01	1 0030E-01	2.7109E-03	
												Th-232 [4 7112E-02 kg]	7.48694E-01	1 9175E-01	5.1823E-03	
												U-234 [1 2800E-05 kg]	1.14657E+01	2 9364E+00	7 9363E-02	
												U-Nat [1 7937E-01 kg]	1.83984E+01	4 7120E+00	1.2735E-01	
												Subtotal		8 5191E+00	2.3025E-01	
												Total		8 5191E+00	2 3025E-01	
												Source [2 2649E-01 kg]				
9236/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7565 9212	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32743E-02	1 7628E-02	4 7643E-04	AU
		200 0000	8 3400	0 0200	<2 2000E+02	<2.2000E+03		200 0000				Pa-231	2 68421E-01	7 4781E-02	2 0211E-03	
												Ra-223	5 85543E-02	1 6313E-02	4.4089E-04	
												Ra-226	1 77579E-01	4 9473E-02	1.3371E-03	
												Ra-228	7 48699E-01	2 0858E-01	5.6374E-03	
												Th-227 [1 5369E-14 kg]	6 32743E-02	1 7628E-02	4.7643E-04	
												Th-228 [8.0771E-12 kg]	8 79622E-01	2 4506E-01	6.6232E-03	
												Th-230 [1.4043E-07 kg]	3 91655E-01	1 0911E-01	2 9490E-03	
												Th-232 [5 1249E-02 kg]	7.48699E-01	2 0858E-01	5 6374E-03	

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 Seaven

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 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												U-234 [1.3925E-05 kg]	1 14657E+01	3 1943E+00	8 6332E-02	
												U-Nat [1.9512E-01 kg]	1 83981E+01	5 1256E+00	1 3853E-01	
												Subtotal		9 2671E+00	2 5046E-01	
												Total		9.2671E+00	2 5046E-01	
												Source [2 4638E-01 kg]				
9236/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6880 9967	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32740E-02	1.6024E-02	4.3309E-04	AU
		200 0000	7 5860	0 6200	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 7980E-02	1.8373E-03	
												Ra-223	5 85536E-02	1 4829E-02	4 0078E-04	
												Ra-226	1 77569E-01	4 4970E-02	1 2154E-03	
												Ra-228	7 48699E-01	1 8961E-01	5 1246E-03	
												Th-227 [1 3971E-14 kg]	6 32740E-02	1 6024E-02	4 3309E-04	
												Th-228 [7.3424E-12 kg]	8 79618E-01	2 2277E-01	6 0207E-03	
												Th-230 [1 2765E-07 kg]	3 91648E-01	9.9186E-02	2.6807E-03	
												Th-232 [4.6587E-02 kg]	7 48699E-01	1.8961E-01	5 1246E-03	
												U-234 [1 2658E-05 kg]	1.14657E+01	2.9037E+00	7 8479E-02	
												U-Nat [1.7737E-01 kg]	1 83982E+01	4.6594E+00	1 2593E-01	
												Subtotal		8 4241E+00	2 2768E-01	
												Total		8.4241E+00	2 2768E-01	
												Source [2.2397E-01 kg]				
9237/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7166 7699	0 0020	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32738E-02	1 6693E-02	4 5117E-04	AU
		200 0000	7 9000	0 2000	<2 2000E+02	<2.2000E+03		200 0000				Pa-231	2 68427E-01	7 0818E-02	1 9140E-03	
												Ra-223	5 85546E-02	1 5448E-02	4 1752E-04	
												Ra-226	1 77577E-01	4 6849E-02	1 2662E-03	
												Ra-228	7 48692E-01	1 9752E-01	5 3385E-03	
												Th-227 [1.4554E-14 kg]	6 32738E-02	1 6693E-02	4 5117E-04	
												Th-228 [7 6489E-12 kg]	8 79624E-01	2 3207E-01	6 2721E-03	
												Th-230 [1 3298E-07 kg]	3 91645E-01	1.0333E-01	2.7926E-03	
												Th-232 [4 8532E-02 kg]	7.48692E-01	1 9752E-01	5.3385E-03	
												U-234 [1 3186E-05 kg]	1.14656E+01	3 0249E+00	8.1755E-02	
												U-Nat [1 8477E-01 kg]	1.83966E+01	4 8540E+00	1.3119E-01	
												Subtotal		8.7758E+00	2.3719E-01	
												Total		8 7758E+00	2.3719E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												Source [2.3332E-01 kg]				
9238/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	6073 6022	0 0001	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32735E-02	1.4134E-02	3.8200E-04	AU
		200 0000	6 6950	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68432E-01	5.9962E-02	1.6206E-03	
												Ra-223	5 85545E-02	1.3080E-02	3.5351E-04	
												Ra-226	1.77580E-01	3 9668E-02	1.0721E-03	
												Ra-228	7 48698E-01	1.6724E-01	4 5201E-03	
												Th-227 [1.2323E-14 kg]	6 32735E-02	1 4134E-02	3 8200E-04	
												Th-228 [6 4763E-12 kg]	8.79618E-01	1 9649E-01	5 3105E-03	
												Th-230 [1.1260E-07 kg]	3 91650E-01	8 7487E-02	2 3645E-03	
												Th-232 [4 1092E-02 kg]	7 48698E-01	1 6724E-01	4 5201E-03	
												U-234 [1.1165E-05 kg]	1 14656E+01	2.5612E+00	6 9221E-02	
												U-Nat [1 5645E-01 kg]	1 83990E+01	4 1100E+00	1 1108E-01	
												Subtotal		7 4306E+00	2 0083E-01	
												Total		7 4306E+00	2 0083E-01	
												Source [1.9755E-01 kg]				
9238/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	6986 3230	0 0001	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32739E-02	1 6269E-02	4.3969E-04	AU
		200 0000	7 7000	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68427E-01	6 9016E-02	1 8653E-03	
												Ra-223	5 85538E-02	1 5055E-02	4 0689E-04	
												Ra-226	1 77580E-01	4 5658E-02	1.2340E-03	
												Ra-228	7 48698E-01	1 9250E-01	5 2027E-03	
												Th-227 [1.4184E-14 kg]	6 32739E-02	1 6269E-02	4 3969E-04	
												Th-228 [7.4543E-12 kg]	8 79623E-01	2 2616E-01	6.1125E-03	
												Th-230 [1 2960E-07 kg]	3 91654E-01	1 0070E-01	2 7216E-03	
												Th-232 [4 7297E-02 kg]	7 48698E-01	1 9250E-01	5.2027E-03	
												U-234 [1 2851E-05 kg]	1 14657E+01	2.9480E+00	7.9675E-02	
												U-Nat [1 8007E-01 kg]	1 83983E+01	4.7305E+00	1.2785E-01	
												Subtotal		8 5526E+00	2 3115E-01	
												Total		8 5526E+00	2.3115E-01	
												Source [2 2738E-01 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-988

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9247/GTEDSI	19 Strong Tight Container Loaded in Gondola	5 6634	5143 7378	0 0001	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32746E-02	1 1957E-02	3 2317E-04	AU
		200 0000	5 6700	0 0100	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68433E-01	5 0727E-02	1 3710E-03	
												Ra-223	5 85540E-02	1 1065E-02	2 9906E-04	
												Ra-226	1 77573E-01	3.3557E-02	9 0694E-04	
												Ra-228	7.48695E-01	1.4148E-01	3.8239E-03	
												Th-227 [1 0425E-14 kg]	6.32746E-02	1.1957E-02	3.2317E-04	
												Th-228 [5.4788E-12 kg]	8.79622E-01	1.6623E-01	4.4926E-03	
												Th-230 [9 5254E-08 kg]	3 91646E-01	7 4011E-02	2 0003E-03	
												Th-232 [3 4763E-02 kg]	7 48695E-01	1 4148E-01	3 8239E-03	
												U-234 [9 4451E-06 kg]	1 14657E+01	2 1667E+00	5 8560E-02	
												U-Nat [1 3235E-01 kg]	1 83983E+01	3 4768E+00	9 3968E-02	
												Subtotal		6 2860E+00	1 6989E-01	
												Total		6 2860E+00	1 6989E-01	
												Source [1.6712E-01 kg]				
9248/GTEDSI	19 Strong Tight Container Loaded in Gondola	3 3980	3247 7216	0 0002	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	3 3980	100	OXIDES/NONE	0 00	Ac-227	6 32742E-02	7 5184E-03	2.0320E-04	AU
		120 0000	3 5800	0 0200	<2 2000E+02	<2 2000E+03		120 0000				Pa-231	2 68424E-01	3 1895E-02	8 6202E-04	
												Ra-223	5 85536E-02	6.9575E-03	1.8804E-04	
												Ra-226	1 77573E-01	2.1100E-02	5.7026E-04	
												Ra-228	7 48704E-01	8 8963E-02	2 4044E-03	
												Th-227 [6 5548E-15 kg]	6.32742E-02	7 5184E-03	2 0320E-04	
												Th-228 [3 4449E-12 kg]	8 79612E-01	1 0452E-01	2 8248E-03	
												Th-230 [5.9893E-08 kg]	3 91665E-01	4 6539E-02	1 2578E-03	
												Th-232 [2 1858E-02 kg]	7 48704E-01	8.8963E-02	2.4044E-03	
												U-234 [5.9389E-06 kg]	1.14657E+01	1.3624E+00	3 6821E-02	
												U-Nat [8.3218E-02 kg]	1.83984E+01	2 1861E+00	5 9085E-02	
												Subtotal		3.9525E+00	1.0682E-01	
												Total		3.9525E+00	1.0682E-01	
												Source [1.0508E-01 kg]				
Shipment Totals		43 0416	50022 1898									Source [1.6273E+00 kg]		6.1208E+01	1 6543E+00	
		1520 0000	55 1400													

FORM 541A (03-06)

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-01-988
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-988
EnergySolutions, LLC

Total Activity

Isotope	(MBq)	(mCi)	(Ci)
Ac-227	1 1643E-01	3 1467E-03	3 1467E-06
Pa-231	4 9392E-01	1 3349E-02	1 3349E-05
Ra-223	1 0774E-01	2 9120E-03	2 9120E-06
Ra-226	3 2675E-01	8 8310E-03	8 8310E-06
Ra-228	1 3777E+00	3 7234E-02	3 7234E-05
Th-227	1 1643E-01	3.1467E-03	3 1467E-06
Th-228	1 6186E+00	4 3745E-02	4 3745E-05
Th-230	7 2066E-01	1 9477E-02	1 9477E-05
Th-232	1 3777E+00	3 7234E-02	3 7234E-05
U-234	2 1098E+01	5.7020E-01	5 7020E-04
U-Nat	3 3854E+01	9.1498E-01	9.1498E-04

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

wt with load frame

26-OCT-06 07:35 Bag# 9248

9250 lb GR

260C-0 0735 9248 0009250

0 9248

07:300 26-OCT-060

1 9250 lb GROSS

1 2090 lb TARE

1 7160 lb NET

wt used for shipping

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

25-OCT-06 13:43 Bag# 9247

11340 lb GR

250C-0 1343 9247 0011340

9P470

13:430 25-OCT-060

1 11340 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

23-OCT-06 07:52 Bag# 9239

15400 lb GR

230C-0 0752 9239 0015400

0 92390

07:520 23-OCT-060

1 15400 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

23-OCT-06 07:48 Bag# 9238

13390 lb GR

230C-0 0748 9238 0013390

9238

07:48 23-OCT-06

1 13390 lb GRGS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

18-OCT-06 12:57 Bag# 9237

15800 lb GR

180C-0 1257 9237 0015800

92370

12:570 18-OCT-060

1 15800 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

18-OCT-06 12:47 Bag# 9236

15170 lb GR

180C-0 1247 9236 0015170

92360

12:470 18-OCT-060

1 15170 lb GR0SS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

16-OCT-06 13:55 Bag# 9235

16680 lb GR

160C-0 1355 9235 0016680

92370

13:570 16-OCT-060

1 16680 lb GR035

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

16-OCT-06 10:00 Bag# 9234

15340 lb GR

160C-0 1000 9234 0015340

9234

10:000 16-OCT-06

1 15340 lb GR

RSR Paperwork Completion By Bates

L100242

ARRIVED: 11/20/2006

RECORD: 0840-01-0987

HAZ_MANIFEST:

VEHICLE_ID: MHFX5295

CUFEET: 1520

Waste Type: NORM

Conveyance Release Survey:

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ==> 8

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

EPA MANIFEST NUMBER

5 SHIPPER – NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

Utah Generator Site Access Permit No: 020 500 1362

SHIPMENT NUMBER: MHFX-5295

CONTACT: Jean Agostinelli

6 CARRIER – Name and Address
Priority Transport Services, Inc
391 Anthony Street
Schenectady, NY 12308

CONTACT: Dispatch

SIGNATURE – Authorized carrier acknowledging waste receipt

SHIPPER I D NUMBER: 0840-01-987

☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 905 553 3658

EPA I D NUMBER: NYR000164976

SHIPPING DATE: 11/07/2006

TELEPHONE (Include Area Code): 800-236 0869

DATE: 11-7-06

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): 0840-01-987

9 CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

CONTACT: Shipping and Receiving

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

SIGNATURE – Authorized consignee acknowledging waste receipt: L100242

DATE: 11/27/06

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 requirements of 10 CFR Parts 20 and 61 or equivalent state regulations

AUTHORIZED SIGNATURE: [signature] TITLE: Broker DATE: 11-7-06

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3.9301E+00	1.0622E-01	NA	7120 LBS, 120 FT3	9226
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	4.8457E+00	1.3096E-01	NA	8760 LBS, 200 FT3	9227
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	5.6496E+00	1.5269E-01	NA	10200 LBS; 200 FT3	9228
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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 seperate 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)
0840-01-987

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6.6768E+00	1 8045E-01	NA	12040 LBS; 200 FT3	9229
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7 7821E+00	2 1033E-01	NA	14020 LBS, 200 FT3	9230
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8 7144E+00	2 3553E-01	NA	15690 LBS, 200 FT3	9231
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.6139E+00	2 3281E-01	NA	15510 LBS; 200 FT3	9232
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.5309E+00	2 0354E-01	NA	13570 LBS; 200 FT3	9233
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

FORM 540A (03-06)

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
8	m3 43 0418 / ft3 1520 0000	kg 43667.3404 / ton 48 1350	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	5 3744E+01	NP	NP	NP	NP	(kg)	1 4288E+00
mCi	1.4525E+00	NP	NP	NP	NP	(tons)	1 5750E-03

2 MANIFEST NUMBER 0840-01-987

3 PAGE 1 OF 4 PAGE(S)

4 SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-987

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
9226/GTEOSI	19 Strong Tight Container Loaded in Gondola	3 3980	3229 5779	0 0026	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	3 3980	100	OXIDES/NONE	0 00	Ac-227	6 32736E-02	7.4759E-03	2 0205E-04	AU
		120 0000	3 6600	0 2500	<2 2000E+02	<2 2000E+03		120 0000				Pa-231	2 68424E-01	3 1715E-02	8 5715E-04	
												Ra-223	5 85543E-02	6 9183E-03	1 8698E-04	
												Ra-226	1 77573E-01	2 0980E-02	5 6704E-04	
												Ra-228	7 48699E-01	8 8460E-02	2 3908E-03	
												Th-227 [6 5178E-15 kg]	6 32736E-02	7.4759E-03	2.0205E-04	
												Th-228 [3 4255E-12 kg]	8.79630E-01	1 0393E-01	2 8089E-03	
												Th-230 [5 9555E-08 kg]	3 91667E-01	4 6276E-02	1 2507E-03	
												Th-232 [2.1735E-02 kg]	7 48699E-01	8 8460E-02	2 3908E-03	
												U-234 [5 9053E-06 kg]	1.14657E+01	1 3547E+00	3 6613E-02	
												U-Nat [8 2748E-02 kg]	1 83984E+01	2.1738E+00	5 8751E-02	
												Subtotal		3 9302E+00	1 0622E-01	
												Total		3 9302E+00	1 0622E-01	
												Source [1 0449E-01 kg]				
9227/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	3973 4694	0 0016	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32740E-02	9 2174E-03	2.4912E-04	AU
		200 0000	4 3800	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68417E-01	3 9102E-02	1.0568E-03	
												Ra-223	5 85549E-02	8 5300E-03	2 3054E-04	
												Ra-226	1 77575E-01	2 5868E-02	6 9914E-04	
												Ra-228	7 48687E-01	1 0906E-01	2 9477E-03	
												Th-227 [8.0362E-15 kg]	6 32740E-02	9 2174E-03	2 4912E-04	
												Th-228 [4 2234E-12 kg]	8.79619E-01	1.2814E-01	3.4632E-03	
												Th-230 [7 3428E-08 kg]	3 91653E-01	5 7054E-02	1 5420E-03	
												Th-232 [2 6798E-02 kg]	7 48687E-01	1 0906E-01	2 9477E-03	

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 Seavan

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 (03-06)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 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)/(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)	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 AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
												U-234 [7 2810E-06 kg]	1.14656E+01	1 6703E+00	4.5142E-02	
												U-Nat [1 0202E-01 kg]	1.83983E+01	2.6802E+00	7.2437E-02	
												Subtotal		4 8457E+00	1 3096E-01	
												Total		4 8457E+00	1 3096E-01	
												Source [1 2883E-01 kg]				
9228/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	4626 6425	0 0015	<3 6740E-06	<3 6740E-06	22,69 CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6.32743E-02	1 0747E-02	2.9045E-04	AU
		200 0000	5 1000	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2.68434E-01	4 5591E-02	1 2322E-03	
												Ra-223	5 85535E-02	9 9449E-03	2 6878E-04	
												Ra-226	1.77573E-01	3.0159E-02	8 1512E-04	
												Ra-228	7.48704E-01	1 2716E-01	3.4388E-03	
												Th-227 [9.3693E-15 kg]	6.32743E-02	1 0747E-02	2 9045E-04	
												Th-228 [4 9241E-12 kg]	8 79632E-01	1 4940E-01	4 0378E-03	
												Th-230 [8 5610E-08 kg]	3 91649E-01	6 6519E-02	1 7978E-03	
												Th-232 [3 1243E-02 kg]	7.48704E-01	1 2716E-01	3 4368E-03	
												U-234 [8 4889E-06 kg]	1 14656E+01	1 9473E+00	5 2631E-02	
												U-Nat [1.1895E-01 kg]	1 83982E+01	3 1248E+00	8 4454E-02	
												Subtotal		5 6495E+00	1 5269E-01	
												Total		5 6495E+00	1 5269E-01	
												Source [1 5020E-01 kg]				
9229/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	5481 2525	0 0015	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32745E-02	1 2701E-02	3 4326E-04	AU
		200 0000	6 0200	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2.68427E-01	5 3879E-02	1 4562E-03	
												Ra-223	5 85537E-02	1.1753E-02	3 1765E-04	
												Ra-226	1.77574E-01	3.5643E-02	9.6333E-04	
												Ra-228	7.48691E-01	1.5028E-01	4 0616E-03	
												Th-227 [1.1073E-14 kg]	6 32745E-02	1 2701E-02	3 4326E-04	
												Th-228 [5.8194E-12 kg]	8 79623E-01	1 7656E-01	4.7719E-03	
												Th-230 [1 0118E-07 kg]	3.91654E-01	7 8614E-02	2.1247E-03	
												Th-232 [3.6924E-02 kg]	7.48691E-01	1.5028E-01	4 0616E-03	
												U-234 [1.0032E-05 kg]	1 14656E+01	2 3014E+00	6 2200E-02	
												U-Nat [1 4058E-01 kg]	1.83984E+01	3.6930E+00	9.9810E-02	
												Subtotal		6.6768E+00	1.8045E-01	
												Total		6 6768E+00	1 8045E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 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) / (ton)	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				16 WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
					ALPHA	BETA-GAMMA						RADIONUCLIDES	pCi/gm	MBq	mCi	
												Source [1 7751E-01 kg]				
9230/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6359 3654	0 0010	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32749E-02	1 4803E-02	4 0009E-04	AU
		200 0000	7 0100	0 1000	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68431E-01	6 2800E-02	1 6973E-03	
												Ra-223	5 85541E-02	1.3699E-02	3 7024E-04	
												Ra-226	1.77573E-01	4.1544E-02	1.1228E-03	
												Ra-228	7.48706E-01	1 7516E-01	4.7341E-03	
												Th-227 [1 2906E-14 kg]	6.32749E-02	1.4803E-02	4 0009E-04	
												Th-228 [6 7828E-12 kg]	8 79624E-01	2 0579E-01	5 5619E-03	
												Th-230 [1.1793E-07 kg]	3 91647E-01	9 1627E-02	2 4764E-03	
												Th-232 [4 3037E-02 kg]	7.48706E-01	1 7516E-01	4 7341E-03	
												U-234 [1 1693E-05 kg]	1 14657E+01	2 6824E+00	7.2498E-02	
												U-Nat [1 6385E-01 kg]	1 83978E+01	4 3042E+00	1.1633E-01	
												Subtotal		7.7820E+00	2.1033E-01	
												Total		7.7820E+00	2 1033E-01	
												Source [2 0690E-01 kg]				
9231/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7116 8648	0 0005	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32748E-02	1.6577E-02	4.4802E-04	AU
		200 0000	7 8450	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68426E-01	7.0322E-02	1 9006E-03	
												Ra-223	5.85534E-02	1 5340E-02	4 1459E-04	
												Ra-226	1.77571E-01	4 6520E-02	1 2573E-03	
												Ra-228	7 48700E-01	1 9614E-01	5.3012E-03	
												Th-227 [1 4452E-14 kg]	6.32748E-02	1.6577E-02	4.4802E-04	
												Th-228 [7.5954E-12 kg]	8.79622E-01	2 3044E-01	6 2282E-03	
												Th-230 [1.3205E-07 kg]	3.91651E-01	1 0260E-01	2 7731E-03	
												Th-232 [4 8193E-02 kg]	7 48700E-01	1.9614E-01	5.3012E-03	
												U-234 [1 3094E-05 kg]	1.14657E+01	3.0038E+00	8 1183E-02	
												U-Nat [1 8348E-01 kg]	1.83983E+01	4.8200E+00	1.3027E-01	
												Subtotal		8 7145E+00	2.3553E-01	
												Total		8 7145E+00	2 3553E-01	
												Source [2 3168E-01 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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) 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%	RADIONUCLIDES	pCi/gm	MBq	mCi	
9232/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	7035 2181	0 0005	<3 6740E-06	<3 6740E 05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32743E-02	1 6385E-02	4 4285E-04	AU
		200 0000	7 7550	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 9512E-02	1 8787E-03	
												Ra-223	5 85535E-02	1 5163E-02	4 0981E-04	
												Ra-226	1 77571E-01	4 5984E-02	1 2428E-03	
												Ra-228	7 48704E-01	1 9388E-01	5 2401E-03	
												Th-227 [1 4286E-14 kg]	6 32743E-02	1 6385E-02	4.4285E-04	
												Th-228 [7 5078E-12 kg]	8 79625E-01	2 2779E-01	6 1564E-03	
												Th-230 [1.3053E-07 kg]	3.91648E-01	1.0142E-01	2 7411E-03	
												Th-232 [4 7637E-02 kg]	7 48704E-01	1 9388E-01	5 2401E-03	
												U-234 [1 2943E-05 kg]	1 14657E+01	2 9691E+00	8.0247E-02	
												U-Nat [1 8136E-01 kg]	1 83986E+01	4 7645E+00	1 2877E-01	
												Subtotal		8 6140E+00	2.3281E-01	
												Total		8.6140E+00	2 3281E-01	
												Source [2 2901E-01 kg]				
9233/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	6156 2488	0 0005	<3 6740E-06	<3 6740E-05	22,59 CONCRETE,59 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32741E-02	1.4325E-02	3.8717E-04	AU
		200 0000	6 7850	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68429E-01	6 0773E-02	1.6425E-03	
												Ra-223	5 85544E-02	1 3257E-02	3 5829E-04	
												Ra-226	1.77580E-01	4.0204E-02	1 0866E-03	
												Ra-228	7.48693E-01	1 6950E-01	4.5812E-03	
												Th-227 [1.2489E-14 kg]	6 32741E-02	1 4325E-02	3.8717E-04	
												Th-228 [8.5638E-12 kg]	8 79631E-01	1 9915E-01	5 3824E-03	
												Th-230 [1 1412E-07 kg]	3 91654E-01	8.8671E-02	2 3965E-03	
												Th-232 [4 1648E-02 kg]	7.48693E-01	1.6950E-01	4.5812E-03	
												U-234 [1.1316E-05 kg]	1 14656E+01	2 5958E+00	7 0157E-02	
												U-Nat [1 5856E-01 kg]	1 83986E+01	4 1655E+00	1 1258E-01	
												Subtotal		7 5310E+00	2 0354E-01	
												Total		7.5310E+00	2.0354E-01	
												Source [2.0022E-01 kg]				
Shipment Totals		43 0418	43967 6396									Source [1 4288E+00 kg]		5 3744E+01	1 4525E+00	
		1520 0000	48 4550													

FORM 541A (03-06)

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-01-987
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-987
EnergySolutions, LLC

Total Activity

Isotope	(MBq)	(mCi)	(Ci)
Ac-227	1 0223E-01	2 7630E-03	2 7630E-06
Pa-231	4.3369E-01	1 1721E-02	1 1721E-05
Ra-223	9 4605E-02	2 5569E-03	2 5569E-06
Ra-226	2 8690E-01	7 7541E-03	7 7541E-06
Ra-228	1 2097E+00	3 2693E-02	3.2693E-05
Th-227	1 0223E-01	2 7630E-03	2 7630E-06
Th-228	1 4212E+00	3 8411E-02	3 8411E-05
Th-230	6 3278E-01	1 7102E-02	1 7102E-05
Th-232	1 2097E+00	3 2693E-02	3 2693E-05
U-234	1 8525E+01	5 0067E-01	5 0067E-04
U-Nat	2 9726E+01	8 0340E-01	8 0340E-04

FORM 540 — **EnergySolutions, LLC**

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ====> 8

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

EPA MANIFEST NUMBER

5. SHIPPER -- NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

SHIPPER I.D. NUMBER: 0840-01-987
☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

Utah Generator Site Access Permit No.: 020 500 1352
SHIPMENT NUMBER: MHFX-5295

CONTACT: Jean Agostinelli
TELEPHONE NUMBER (Include Area Code): 908-559-3686

6. CARRIER -- Name and Address
Priority Transport Services, Inc.
391 Anthony Street
Schenectady, NY 12308

EPA I.D. NUMBER: NYR000104976
SHIPPING DATE: 11/07/2006

CONTACT: Dispatch
TELEPHONE (Include Area Code): 800-235-0069

SIGNATURE -- Authorized carrier acknowledging waste receipt
DATE: 11-7-06

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): 0840-01-987

9. CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

CONTACT: Shipping and Receiving
TELEPHONE (Include Area Code): 435-884-0155

SIGNATURE -- Authorized consignee acknowledging waste receipt
DATE

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 requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: [signature] — TITLE: Broker — DATE: 11-7-06

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	16. TOTAL PACKAGE ACTIVITY mCi	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	3.9301E+00	1.0622E-01	NA	7120 LBS; 120 FT3	9226
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	4.8457E+00	1.3096E-01	NA	8760 LBS; 200 FT3	9227
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	5.6496E+00	1.5269E-01	NA	10200 LBS; 200 FT3	9228

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 540A

EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0840-01-987

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6.6768E+00	1.8045E-01	NA	12040 LBS; 200 FT3	9229
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.7821E+00	2.1033E-01	NA	14020 LBS; 200 FT3	9230
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.7144E+00	2.3553E-01	NA	15690 LBS; 200 FT3	9231
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.6139E+00	2.3281E-01	NA	15510 LBS; 200 FT3	9232
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.5309E+00	2.0354E-01	NA	13570 LBS; 200 FT3	9233
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
8	m3 43.0418 ft3 1520.0000	kg 43667.3404 ton 48.1350	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	5.3744E+01	NP	NP	NP	NP	(kg)	1.4288E+00
mCi	1.4525E+00	NP	NP	NP	NP	(tons)	1.5750E-03

2. MANIFEST NUMBER 0840-01-987

3. PAGE 1 OF 4 PAGE(S)

4. SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-987

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
9226/GTEOSI	19 Strong Tight Container Loaded in Gondola	3.3980	3229.5779	0.0025	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	3.3980	100	OXIDES/NONE	0.00	Ac-227	6.32736E-02	7.4759E-03	2.0205E-04	AU
		120.0000	3.5600	0.2500	<2.2000E+02	<2.2000E+03		120.0000				Pa-231	2.68424E-01	3.1715E-02	8.5715E-04	
												Ra-223	5.85543E-02	6.9183E-03	1.8698E-04	
												Ra-226	1.77573E-01	2.0980E-02	5.6704E-04	
												Ra-228	7.48699E-01	8.8460E-02	2.3908E-03	
												Th-227 [6.5178E-15 kg]	6.32736E-02	7.4759E-03	2.0205E-04	
												Th-228 [3.4255E-12 kg]	8.79630E-01	1.0393E-01	2.8089E-03	
												Th-230 [5.9555E-08 kg]	3.91667E-01	4.6276E-02	1.2507E-03	
												Th-232 [2.1735E-02 kg]	7.48699E-01	8.8460E-02	2.3908E-03	
												U-234 [5.9053E-06 kg]	1.14657E+01	1.3547E+00	3.6613E-02	
												U-Nat [8.2748E-02 kg]	1.83984E+01	2.1738E+00	5.8751E-02	
												Subtotal		3.9302E+00	1.0622E-01	
												Total		3.9302E+00	1.0622E-01	
												Source [1.0449E-01 kg]				
9227/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	3973.4694	0.0015	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32740E-02	9.2174E-03	2.4912E-04	AU
		200.0000	4.3800	0.1500	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68417E-01	3.9102E-02	1.0568E-03	
												Ra-223	5.85549E-02	8.5300E-03	2.3054E-04	
												Ra-226	1.77575E-01	2.5868E-02	6.9914E-04	
												Ra-228	7.48687E-01	1.0906E-01	2.9477E-03	
												Th-227 [8.0362E-15 kg]	6.32740E-02	9.2174E-03	2.4912E-04	
												Th-228 [4.2234E-12 kg]	8.79619E-01	1.2814E-01	3.4632E-03	
												Th-230 [7.3428E-08 kg]	3.91653E-01	5.7054E-02	1.5420E-03	
												Th-232 [2.6798E-02 kg]	7.48687E-01	1.0906E-01	2.9477E-03	

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 Seavan

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 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-987

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
												U-234 [7.2810E-06 kg]	1.14656E+01	1.6703E+00	4.5142E-02	
												U-Nat [1.0202E-01 kg]	1.83983E+01	2.6802E+00	7.2437E-02	
												Subtotal		4.8457E+00	1.3096E-01	
												Total		4.8457E+00	1.3096E-01	
												Source [1.2883E-01 kg]				
9228/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	4626.6425	0.0015	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32743E-02	1.0747E-02	2.9045E-04	AU
		200.0000	5.1000	0.1500	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68434E-01	4.5591E-02	1.2322E-03	
												Ra-223	5.85535E-02	9.9449E-03	2.6878E-04	
												Ra-226	1.77573E-01	3.0159E-02	8.1512E-04	
												Ra-228	7.48704E-01	1.2716E-01	3.4368E-03	
												Th-227 [9.3693E-15 kg]	6.32743E-02	1.0747E-02	2.9045E-04	
												Th-228 [4.9241E-12 kg]	8.79632E-01	1.4940E-01	4.0378E-03	
												Th-230 [8.5610E-08 kg]	3.91649E-01	6.6519E-02	1.7978E-03	
												Th-232 [3.1243E-02 kg]	7.48704E-01	1.2716E-01	3.4368E-03	
												U-234 [8.4889E-06 kg]	1.14656E+01	1.9473E+00	5.2631E-02	
												U-Nat [1.1895E-01 kg]	1.83982E+01	3.1248E+00	8.4454E-02	
												Subtotal		5.6495E+00	1.5269E-01	
												Total		5.6495E+00	1.5269E-01	
												Source [1.5020E-01 kg]				
9229/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	5461.2525	0.0015	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32745E-02	1.2701E-02	3.4326E-04	AU
		200.0000	6.0200	0.1500	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68427E-01	5.3879E-02	1.4562E-03	
												Ra-223	5.85537E-02	1.1753E-02	3.1765E-04	
												Ra-226	1.77574E-01	3.5643E-02	9.6333E-04	
												Ra-228	7.48691E-01	1.5028E-01	4.0616E-03	
												Th-227 [1.1073E-14 kg]	6.32745E-02	1.2701E-02	3.4326E-04	
												Th-228 [5.8194E-12 kg]	8.79623E-01	1.7656E-01	4.7719E-03	
												Th-230 [1.0118E-07 kg]	3.91654E-01	7.8614E-02	2.1247E-03	
												Th-232 [3.6924E-02 kg]	7.48691E-01	1.5028E-01	4.0616E-03	
												U-234 [1.0032E-05 kg]	1.14656E+01	2.3014E+00	6.2200E-02	
												U-Nat [1.4058E-01 kg]	1.83984E+01	3.6930E+00	9.9810E-02	
												Subtotal		6.6768E+00	1.8045E-01	
												Total		6.6768E+00	1.8045E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-987

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												Source [1.7751E-01 kg]				
9230/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6359.3654	0.0010	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32749E-02	1.4803E-02	4.0009E-04	AU
												Pa-231	2.68431E-01	6.2800E-02	1.6973E-03	
												Ra-223	5.85541E-02	1.3699E-02	3.7024E-04	
		200.0000	7.0100	0.1000	<2.2000E+02	<2.2000E+03		200.0000				Ra-226	1.77573E-01	4.1544E-02	1.1228E-03	
												Ra-228	7.48706E-01	1.7516E-01	4.7341E-03	
												Th-227 [1.2906E-14 kg]	6.32749E-02	1.4803E-02	4.0009E-04	
												Th-228 [6.7828E-12 kg]	8.79624E-01	2.0579E-01	5.5619E-03	
												Th-230 [1.1793E-07 kg]	3.91647E-01	9.1627E-02	2.4764E-03	
												Th-232 [4.3037E-02 kg]	7.48706E-01	1.7516E-01	4.7341E-03	
												U-234 [1.1693E-05 kg]	1.14657E+01	2.6824E+00	7.2498E-02	
												U-Nat [1.6385E-01 kg]	1.83978E+01	4.3042E+00	1.1633E-01	
												Subtotal		7.7820E+00	2.1033E-01	
												Total		7.7820E+00	2.1033E-01	
												Source [2.0690E-01 kg]				
9231/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	7116.8648	0.0005	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32748E-02	1.6577E-02	4.4802E-04	AU
												Pa-231	2.68426E-01	7.0322E-02	1.9006E-03	
												Ra-223	5.85534E-02	1.5340E-02	4.1459E-04	
		200.0000	7.8450	0.0500	<2.2000E+02	<2.2000E+03		200.0000				Ra-226	1.77571E-01	4.6520E-02	1.2573E-03	
												Ra-228	7.48700E-01	1.9614E-01	5.3012E-03	
												Th-227 [1.4452E-14 kg]	6.32748E-02	1.6577E-02	4.4802E-04	
												Th-228 [7.5954E-12 kg]	8.79622E-01	2.3044E-01	6.2282E-03	
												Th-230 [1.3205E-07 kg]	3.91651E-01	1.0260E-01	2.7731E-03	
												Th-232 [4.8193E-02 kg]	7.48700E-01	1.9614E-01	5.3012E-03	
												U-234 [1.3094E-05 kg]	1.14657E+01	3.0038E+00	8.1183E-02	
												U-Nat [1.8348E-01 kg]	1.83983E+01	4.8200E+00	1.3027E-01	
												Subtotal		8.7145E+00	2.3553E-01	
												Total		8.7145E+00	2.3553E-01	
												Source [2.3168E-01 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-01-987

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9232/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	7035.2181	0.0005	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32743E-02	1.6385E-02	4.4285E-04	AU
		200.0000	7.7550	0.0500	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68428E-01	6.9512E-02	1.8787E-03	
												Ra-223	5.85535E-02	1.5163E-02	4.0981E-04	
												Ra-226	1.77571E-01	4.5984E-02	1.2428E-03	
												Ra-228	7.48704E-01	1.9388E-01	5.2401E-03	
												Th-227 [1.4286E-14 kg]	6.32743E-02	1.6385E-02	4.4285E-04	
												Th-228 [7.5078E-12 kg]	8.79625E-01	2.2779E-01	6.1564E-03	
												Th-230 [1.3053E-07 kg]	3.91648E-01	1.0142E-01	2.7411E-03	
												Th-232 [4.7637E-02 kg]	7.48704E-01	1.9388E-01	5.2401E-03	
												U-234 [1.2943E-05 kg]	1.14657E+01	2.9691E+00	8.0247E-02	
												U-Nat [1.8136E-01 kg]	1.83986E+01	4.7645E+00	1.2877E-01	
												Subtotal		8.6140E+00	2.3281E-01	
												Total		8.6140E+00	2.3281E-01	
												Source [2.2901E-01 kg]				
9233/GTEOSI	19 Strong Tight Container Loaded in Gondola	5.6634	6155.2489	0.0005	<3.6740E-06	<3.6740E-05	22,59-CONCRETE,59 -MISC DEBRIS-HJ	5.6634	100	OXIDES/NONE	0.00	Ac-227	6.32741E-02	1.4325E-02	3.8717E-04	AU
		200.0000	6.7850	0.0500	<2.2000E+02	<2.2000E+03		200.0000				Pa-231	2.68429E-01	6.0773E-02	1.6425E-03	
												Ra-223	5.85544E-02	1.3257E-02	3.5829E-04	
												Ra-226	1.77580E-01	4.0204E-02	1.0866E-03	
												Ra-228	7.48693E-01	1.6950E-01	4.5812E-03	
												Th-227 [1.2489E-14 kg]	6.32741E-02	1.4325E-02	3.8717E-04	
												Th-228 [6.5638E-12 kg]	8.79631E-01	1.9915E-01	5.3824E-03	
												Th-230 [1.1412E-07 kg]	3.91654E-01	8.8671E-02	2.3965E-03	
												Th-232 [4.1648E-02 kg]	7.48693E-01	1.6950E-01	4.5812E-03	
												U-234 [1.1316E-05 kg]	1.14656E+01	2.5958E+00	7.0157E-02	
												U-Nat [1.5856E-01 kg]	1.83986E+01	4.1655E+00	1.1258E-01	
												Subtotal		7.5310E+00	2.0354E-01	
												Total		7.5310E+00	2.0354E-01	
												Source [2.0022E-01 kg]				
Shipment Totals		43.0418	43957.6395									Source [1.4288E+00 kg]		5.3744E+01	1.4525E+00	
		1520.0000	48.4550													

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number

0840-01-987

PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-987
EnergySolutions, LLC

	Total Activity		
Isotope	(MBq)	(mCi)	(Ci)
Ac-227	1.0223E-01	2.7630E-03	2.7630E-06
Pa-231	4.3369E-01	1.1721E-02	1.1721E-05
Ra-223	9.4605E-02	2.5569E-03	2.5569E-06
Ra-226	2.8690E-01	7.7541E-03	7.7541E-06
Ra-228	1.2097E+00	3.2693E-02	3.2693E-05
Th-227	1.0223E-01	2.7630E-03	2.7630E-06
Th-228	1.4212E+00	3.8411E-02	3.8411E-05
Th-230	6.3278E-01	1.7102E-02	1.7102E-05
Th-232	1.2097E+00	3.2693E-02	3.2693E-05
U-234	1.8525E+01	5.0067E-01	5.0067E-04
U-Nat	2.9726E+01	8.0340E-01	8.0340E-04

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 11/7/2006

Consigned to MHF-LS @ New York-Atlantic Rail Spur
Hicksville, NY 11369

Load in Gondola # MHFX 5295

Emergency Contact: CHEMTREC 800-424-9300

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9226	7120
	Liner	9227	8760
			Total:
			15880
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 8.7758 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 11/7/2006

Consigned to MHF-LS @ New York-Atlantic Rail Spur
Hicksville, NY 11369

Load in Gondola # MHFX 5295

Emergency Contact: CHEMTREC 800-424-9300

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9228	10200
	Liner	9229	12040
			Total:
			22240
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 12.3264 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper	MHF-LS For GTE Operations Support Incorporated 140 Contiague Rock Road Hicksville, NY 11369	Date: 11/7/2006
Consigned to	MHF-LS @ New York-Atlantic Rail Spur Hicksville, NY 11369	Load in Gondola # MHFX 5295
Emergency Contact:	CHEMTREC 800-424-9300	

TR: 38 72. 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9230	14020
	Liner	9231	15690
			Total:
			29710
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227,U238, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-235,		
	Total Activity: 16.4965 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Straight Bill of Lading

Shipper	MHF-LS For GTE Operations Support Incorporated 140 Contiague Rock Road Hicksville, NY 11369	Date: 11/7/2006
Consigned to	MHF-LS @ New York-Atlantic Rail Spur Hicksville, NY 11369	Load in Gondola # MHFX
Emergency Contact:	CHEMTREC 800-424-9300	5295

TR: 38 TL: 225

Quantity	Description		Net Waste Weight
2	Soil, DOT Non-Regulated Waste, Containing		
	Radioactive Materials.		
	Package ID Number		**Pounds:**
	Liner	9232	15510
	Liner	9233	13570
			Total:
			29080
	Packages do not meet the DOT "radioactive material"		
	definition in 49 CFR 173.403.		
	Radionuclide: Ac-227,Th-227, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-nat,		
	Total Activity: 16.1488 MBq		
	Physical Form: Solid		
	Chemical Form: Metal Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			11/7/2006
Transporter	Signature		Date
Priority Transport			11/7/2006

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 084-01-987

Front

9228
10200-lbs

9229
12040-lbs

Rear

MHF-LS Qualified Technician
Signature _____
Shipment Date 11-7-06

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-987

Front

9232
15510-lbs

9233
13570-lbs

Rear

MHF-LS Qualified Technician
Signature _____
Shipment Date 11-7-06

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-01-987

Front

9230
14020-lbs

9231
15690-lbs

Rear

MHF-LS Qualified Technician
Signature [signature]
Shipment Date 11-7-06

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- Q840-01-987

Front

9226
7120-lbs

9227
8760-lbs

Rear

MHF-LS Qualified Technician
Signature [signature]
Shipment Date 11-7-06

Attachment 5.15
RAILCAR INSPECTION FORM

Shipment Number	Carrier	Railcar Number
0840-01-987	New York & Atlantic/LIRR	MHFX-5295

Item	SAT	UNSAT	Criteria	Comments
Coupler	☒	☐	Hardware intact, no cracks or broken welds, latching mechanism works properly, no loose or damaged parts	
Suspension	☒	☐	Hardware intact, no visible cracks or broken welds, coil springs seated and intact, inner and outer bearings intact and seated properly	
Wheel & Axle Assembly	☒	☐	Overall condition, no cracks or damaged areas on wheel surfaces, hubs centered, bolting intact, rims not bent or cracked	
Frame & Undercarriage	☒	☐	Main beams straight and centered, no major bends or damage, welds intact, no cracks	
Floors & Walls (Gondola, Boxcar)	☒	☐	No damage with open holes, punch throughs, ect. No rust damage, seams and welds intact, no rotting or other material problems, structurally sound	
Attachment Points or Tie Downs	☒	☐	Tie down hardware straight and intact, no cracks on or around attachment hardware, mechanical clips or latches operable and complete	
Doors (Boxcar Only)	☒	☐	Can be closed and secured properly, lubricated properly, rollers and tracks in operable condition, no loose or missing hardware, sealing surfaces intact and seals in serviceable condition	
Seals and Gasket	☒	☐	Seal Flanges intact with no dents or bends that affect sealing capability, gaskets pliable and in serviceable condition, no torn or missing areas, gasket appropriate to meet sealing requirements	
Seams (Gondola, Boxcar)	☒	☐	Seams intact, welds visibly sufficient, all corners and mating interfaces caulked and sealed properly	
Drains	☒	☐	Drains plugged or sealed properly, verify threaded plugs are tack welded or otherwise disabled, all other holes closed and sealed	
Brakes	☒	☐	Visibly inspect brake shoes, minimum 1" contact surface on all shoes, hoses and piping (tubing) mechanically sound, no missing or loose hardware, valves operate freely, no kinks or obstructions in piping or hoses	
Paint and Lettering	☒	☐	Overall good condition of exterior surfaces, identification numbering legible and intact, areas for placards or labels intact and structurally sound (Wood or metal panels)	
Bracing	☒	☐	Bracing and shoring must be sufficient to prevent shifting of lading during conditions normally incident to transportation	

MHF-LS Qualified Technician Signature _____

Shipment Date 11-7-06

Attachment 5.10
TRANSPORT VEHICLE RELEASE CHECKLIST

Shipment Number- 0840-01-987

Truck Number- 38

Trailer Number- 225

A qualified MHF-LS shipping technician shall verify that each item listed is satisfactory and then place a Check Mark in the corresponding box.

1. Driver possesses a valid driver's license with a HAZMAT endorsement ☒
2. Driver possesses a valid copy of a "Research and Special Programs Administration" U.S. DOT Hazmat Registration Certificate ☒
3. If manifested on a Hazardous Waste Manifest, ensure the carrier possesses a current EPA ID # ☒
4. Lamps are operable ☐
   - Headlights and Brights
   - Warning Lights and Flashers
   - Brake Lights
5. Coupling devices are intact ☒
6. Tires are sufficient ☒
   - No fabric is exposed through tread or sidewall
   - Front wheel tires must have tread pattern to a depth of ≥1/8 inch
   - Other tires must have tread pattern to a depth of ≥1/16 inch
   - Re-treaded tires are not authorized
7. Horn is operable ☒
8. Windshield wipers are operable ☒
9. Rear-vision mirrors are adequate (1 on each side) ☒
10. Emergency equipment is on-hand and accessible ☒
    - Fire extinguisher
    - Warning devices- bi-directional emergency reflectors, triangles (3), or liquid burning flares
11. General vehicle integrity is satisfactory ☒
    - Frame appears undamaged
    - Flooring is sufficient to support load
    - If a closed transport vehicle, vehicle is closed
    - Vehicle is otherwise in unimpaired physical condition
12. Vehicle truck and trailer have current DOT inspection stickers on both components (Good for 1 year from date performed) ☒
13. Vehicle is properly placarded (Exclusive Use LSA, Yellow III and HRCQ only) ☒
14. Shoring, strapping, blocking and bracing is adequate to prevent shifting of lading ☒

MHF-LS Qualified Technician Signature _____

Shipment Date 11-7-06

BAG#

Container # 9233

Take off container wt

Shipping Check Sheet (For Form 540)

weight (lbs)	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.4325E-02	3.8717E-04	3.8717E-07	grams	kg
grams		specific activity	pCi/g				5.3774E-09	5.3774E-12
6124460		7.2000E+01	Half life					
weight-lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
13490		2.6818E-01	2.6818E-01	6.0771E-02	1.6425E-03	1.6425E-06	grams	kg
grams		specific activity	Half life				3.4946E-05	3.4946E-08
6124460		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		5.8501E-02	5.8501E-02	1.3257E-02	3.5829E-04	3.5829E-07	grams	kg
grams		specific activity	Half life				7.0252E-12	7.0252E-15
6124460		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		2.4437E-01	1.7741E-01	4.0203E-02	1.0866E-03	1.0866E-06	grams	kg
grams		specific activity	Half life				1.0866E-06	1.0866E-09
6124460		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		5.2736E-01	7.4802E-01	1.6951E-01	4.5812E-03	4.5812E-06	grams	kg
grams		specific activity	Half life				1.6968E-08	1.6968E-11
6124460		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		6.3217E-02	6.3217E-02	1.4325E-02	3.8717E-04	3.8717E-07	grams	kg
grams		specific activity	Half life				1.2489E-11	1.2489E-14
6124460		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		4.8660E-01	8.7880E-01	1.9914E-01	5.3822E-03	5.3822E-06	grams	kg
grams		specific activity	Half life				6.5636E-09	6.5636E-12
6124460		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		5.2736E-01	3.9130E-01	8.8670E-02	2.3965E-03	2.3965E-06	grams	kg
grams		specific activity	Half life				1.1412E-04	1.1412E-07
6124460		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		5.2736E-01	7.4802E-01	1.6951E-01	4.5812E-03	4.5812E-06	grams	kg
grams		specific activity	Half life				4.1648E+01	4.1648E-02
6124460		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		1.2900E+01	1.1455E+01	2.5958E+00	7.0157E-02	7.0157E-05	grams	kg
grams		specific activity	Half life				1.1316E-02	1.1316E-05
6124460		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		7.5960E-01	9.7260E-01	2.2040E-01	5.9567E-03	5.9567E-06	grams	kg
grams		specific activity	Half life				2.7076E+00	2.7076E-03
6124460		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13490		1.2900E+01	1.7409E+01	3.9450E+00	1.0662E-01	1.0662E-04	grams	kg
grams		specific activity	Half life				3.1359E+02	3.1359E-01
6124460		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
13490		2.9326E+01	3.3170E+01	7.5309E+00	2.0354E-01	2.0354E-04	grams	kg
Volume-cf			pCi/g	541 will be < than the 540 (MDA not added)			2.7076E+00	3.5525E-01
200								

data for NORM

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.1654E+00	1.1258E-01	1.1258E-04		kg
		specific activity						1.5856E-01
		7.1000E-07						

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	7.5309E+00	2.0354E-01	2.0354E-04		kg total
								2.0022E-01

	BAG#
Container #	9232
Take off container wt	

Shipping Check Sheet (For Form 540)

[redacted]	Ac-227	[redacted]	corrected	activity mBq	activity mCi	activity Ci	SNM	source
[redacted]		6.3217E-02	6.3217E-02	1.6385E-02	4.4285E-04	4.4285E-07	grams	kg
grams		[redacted]	pCi/g				6.1507E-09	6.1507E-12
7005220		7.2000E+01	Half life					
[redacted]	Pa-231	[redacted]	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15430		2.6818E-01	2.6818E-01	6.9511E-02	1.8787E-03	1.8787E-06	grams	kg
grams		[redacted]	Half life				3.9972E-05	3.9972E-08
7005220		4.7000E-02	32.76 yrs					
[redacted]	Ra-223	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		5.8501E-02	5.8501E-02	1.5163E-02	4.0981E-04	4.0981E-07	grams	kg
grams		[redacted]	Half life				8.0355E-12	8.0355E-15
7005220		5.1000E+04	11.434 days					
[redacted]	Ra-226	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		2.4437E-01	1.7741E-01	4.5984E-02	1.2428E-03	1.2428E-06	grams	kg
grams		[redacted]	Half life				1.2428E-06	1.2428E-09
7005220		1.0000E+00	1.6 Thousand yrs					
[redacted]	Ra-228	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		5.2736E-01	7.4802E-01	1.9388E-01	5.2401E-03	5.2401E-06	grams	kg
grams		[redacted]	Half life				1.9408E-08	1.9408E-11
7005220		2.7000E+02	5.75 yrs					
[redacted]	Th-227	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		6.3217E-02	6.3217E-02	1.6385E-02	4.4285E-04	4.4285E-07	grams	kg
grams		[redacted]	Half life				1.4285E-11	1.4285E-14
7005220		3.1000E+04	18.718 days					
[redacted]	Th-228	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		4.8660E-01	8.7880E-01	2.2778E-01	6.1562E-03	6.1562E-06	grams	kg
grams		[redacted]	Half life				7.5075E-09	7.5075E-12
7005220		8.2000E+02	1.913 yrs					
[redacted]	Th-230	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		5.2736E-01	3.9130E-01	1.0142E-01	2.7411E-03	2.7411E-06	grams	kg
grams		[redacted]	Half life				1.3053E-04	1.3053E-07
7005220		2.1000E-02	77 Thousand yrs					
[redacted]	Th-232	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		5.2736E-01	7.4802E-01	1.9388E-01	5.2401E-03	5.2401E-06	grams	kg
grams		[redacted]	Half life				4.7637E+01	4.7637E-02
7005220		1.1000E-07	1.4+4 Million yrs					
[redacted]	U-234	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		1.2900E+01	1.1455E+01	2.9691E+00	8.0247E-02	8.0247E-05	grams	kg
grams		[redacted]	Half life				1.2943E-02	1.2943E-05
7005220		6.2000E-03	244.5 Thousand yrs					
[redacted]	U-235	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		7.5960E-01	9.7260E-01	2.5209E-01	6.8133E-03	6.8133E-06	grams	kg
grams		[redacted]	Half life				3.0970E+00	3.0970E-03
7005220		2.2000E-06	703.8 Million yrs					
[redacted]	U-238	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
15430		1.2900E+01	1.7409E+01	4.5123E+00	1.2195E-01	1.2195E-04	grams	kg
grams		[redacted]	Half life				3.5869E+02	3.5869E-01
7005220		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

[redacted]		[redacted]	corrected	activity mBq	activity mCi	activity Ci	SNM	source
15430		2.9326E+01	3.3170E+01	8.6139E+00	2.3281E-01	2.3281E-04	grams	kg
[redacted]			pCi/g	541 will be < than the 540 (MDA not added)			3.0970E+00	4.0634E-01
200								

data for NORM

	U-nat	[redacted]	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
		1.3660E+01	1.8382E+01	4.7644E+00	1.2877E-01	1.2877E-04	kg
		[redacted]					1.8136E-01
		7.1000E-07					

	U-nat	[redacted]	corrected pCi/g	activity mBq	activity mCi	activity Ci	source
		2.9326E+01	3.3170E+01	8.6139E+00	2.3281E-01	2.3281E-04	kg total
							2.2901E-01

BAG#

Container # 9231

Take off container wt

Shipping Check Sheet (For Form 540)

	Ac-227		corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.6577E-02	4.4802E-04	4.4802E-07	grams	kg
grams			pCi/g				6.2224E-09	6.2224E-12
7086940		7.2000E+01	Half life					
	Pa-231		21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
15610		2.6818E-01	2.6818E-01	7.0322E-02	1.9006E-03	1.9006E-06	grams	kg
grams			Half life				4.0438E-05	4.0438E-08
7086940		4.7000E-02	32.76 yrs					
	Ra-223			activity mBq	activity mCi	activity Ci	SNM	source
15610		5.8501E-02	5.8501E-02	1.5340E-02	4.1459E-04	4.1459E-07	grams	kg
grams			Half life				8.1293E-12	8.1293E-15
7086940		5.1000E+04	11.434 days					
	Ra-226			activity mBq	activity mCi	activity Ci	SNM	source
15610		2.4437E-01	1.7741E-01	4.6521E-02	1.2573E-03	1.2573E-06	grams	kg
grams			Half life				1.2573E-06	1.2573E-09
7086940		1.0000E+00	1.6 Thousand yrs					
	Ra-228			activity mBq	activity mCi	activity Ci	SNM	source
15610		5.2736E-01	7.4802E-01	1.9614E-01	5.3012E-03	5.3012E-06	grams	kg
grams			Half life				1.9634E-08	1.9634E-11
7086940		2.7000E+02	5.75 yrs					
	Th-227			activity mBq	activity mCi	activity Ci	SNM	source
15610		6.3217E-02	6.3217E-02	1.6577E-02	4.4802E-04	4.4802E-07	grams	kg
grams			Half life				1.4452E-11	1.4452E-14
7086940		3.1000E+04	18.718 days					
	Th-228			activity mBq	activity mCi	activity Ci	SNM	source
15610		4.8660E-01	8.7880E-01	2.3044E-01	6.2280E-03	6.2280E-06	grams	kg
grams			Half life				7.5951E-09	7.5951E-12
7086940		8.2000E+02	1.913 yrs					
	Th-230			activity mBq	activity mCi	activity Ci	SNM	source
15610		5.2736E-01	3.9130E-01	1.0260E-01	2.7731E-03	2.7731E-06	grams	kg
grams			Half life				1.3205E-04	1.3205E-07
7086940		2.1000E-02	77 Thousand yrs					
	Th-232			activity mBq	activity mCi	activity Ci	SNM	source
15610		5.2736E-01	7.4802E-01	1.9614E-01	5.3012E-03	5.3012E-06	grams	kg
grams			Half life				4.8193E+01	4.8193E-02
7086940		1.1000E-07	1.4+4 Million yrs					
	U-234			activity mBq	activity mCi	activity Ci	SNM	source
15610		1.2900E+01	1.1455E+01	3.0038E+00	8.1183E-02	8.1183E-05	grams	kg
grams			Half life				1.3094E-02	1.3094E-05
7086940		6.2000E-03	244.5 Thousand yrs					
	U-235			activity mBq	activity mCi	activity Ci	SNM	source
15610		7.5960E-01	9.7260E-01	2.5503E-01	6.8928E-03	6.8928E-06	grams	kg
grams			Half life				3.1331E+00	3.1331E-03
7086940		2.2000E-06	703.8 Million yrs					
	U-238			activity mBq	activity mCi	activity Ci	SNM	source
15610		1.2900E+01	1.7409E+01	4.5650E+00	1.2338E-01	1.2338E-04	grams	kg
grams			Half life				3.6287E+02	3.6287E-01
7086940		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

			corrected	activity mBq	activity mCi	activity Ci	SNM	source
15610		2.9326E+01	3.3170E+01	8.7144E+00	2.3552E-01	2.3552E-04	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			3.1331E+00	4.1108E-01
200				data for NORM				
	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.8200E+00	1.3027E-01	1.3027E-04		kg
								1.8348E-01
		7.1000E-07						

U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	8.7144E+00	2.3552E-01	2.3552E-04		kg total
							2.3168E-01

BAG#

Container # 9230

Take off container wt

Shipping Check Sheet (For Form 540)

weight (lbs)	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.4803E-02	4.0009E-04	4.0009E-07	grams	kg
grams		spec activity	pCi/g				5.5567E-09	5.5567E-12
6328760		7.2000E+01	Half life					
weight lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
13940		2.6818E-01	2.6818E-01	6.2799E-02	1.6973E-03	1.6973E-06	grams	kg
grams		spec activity	Half life				3.6112E-05	3.6112E-08
6328760		4.7000E-02	32.76 yrs					
weight lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		5.8501E-02	5.8501E-02	1.3699E-02	3.7024E-04	3.7024E-07	grams	kg
grams		spec activity	Half life				7.2596E-12	7.2596E-15
6328760		5.1000E+04	11.434 days					
weight lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		2.4437E-01	1.7741E-01	4.1544E-02	1.1228E-03	1.1228E-06	grams	kg
grams		spec activity	Half life				1.1228E-06	1.1228E-09
6328760		1.0000E+00	1.6 Thousand yrs					
weight lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		5.2736E-01	7.4802E-01	1.7516E-01	4.7340E-03	4.7340E-06	grams	kg
grams		spec activity	Half life				1.7534E-08	1.7534E-11
6328760		2.7000E+02	5.75 yrs					
weight lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		6.3217E-02	6.3217E-02	1.4803E-02	4.0009E-04	4.0009E-07	grams	kg
grams		spec activity	Half life				1.2906E-11	1.2906E-14
6328760		3.1000E+04	18.718 days					
weight lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		4.8660E-01	8.7880E-01	2.0578E-01	5.5617E-03	5.5617E-06	grams	kg
grams		spec activity	Half life				6.7826E-09	6.7826E-12
6328760		8.2000E+02	1.913 yrs					
weight lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		5.2736E-01	3.9130E-01	9.1628E-02	2.4764E-03	2.4764E-06	grams	kg
grams		spec activity	Half life				1.1793E-04	1.1793E-07
6328760		2.1000E-02	77 Thousand yrs					
weight lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		5.2736E-01	7.4802E-01	1.7516E-01	4.7340E-03	4.7340E-06	grams	kg
grams		spec activity	Half life				4.3037E+01	4.3037E-02
6328760		1.1000E-07	1.4+4 Million yrs					
weight lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		1.2900E+01	1.1455E+01	2.6824E+00	7.2498E-02	7.2498E-05	grams	kg
grams		spec activity	Half life				1.1693E-02	1.1693E-05
6328760		6.2000E-03	244.5 Thousand yrs					
weight lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		7.5960E-01	9.7260E-01	2.2775E-01	6.1554E-03	6.1554E-06	grams	kg
grams		spec activity	Half life				2.7979E+00	2.7979E-03
6328760		2.2000E-06	703.8 Million yrs					
weight lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
13940		1.2900E+01	1.7409E+01	4.0766E+00	1.1018E-01	1.1018E-04	grams	kg
grams		spec activity	Half life				3.2405E+02	3.2405E-01
6328760		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
13940		2.9326E+01	3.3170E+01	7.7821E+00	2.1033E-01	2.1033E-04	grams	kg
volume m			pCi/g	541 will be < than the 540 (MDA not added)			2.7979E+00	3.6710E-01
200								

data for NORM

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	4.3043E+00	1.1633E-01	1.1633E-04		kg
		spec activity						1.6385E-01
		7.1000E-07						

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	7.7821E+00	2.1033E-01	2.1033E-04		kg total
								2.0690E-01

BAG#

Container # 9229

Take off container wt

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.2701E-02	3.4326E-04	3.4326E-07	grams	kg
grams		spec activity	pCi/g				4.7675E-09	4.7675E-12
5429840		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
11960		2.6818E-01	2.6818E-01	5.3879E-02	1.4562E-03	1.4562E-06	grams	kg
grams		spec activity	Half life				3.0983E-05	3.0983E-08
5429840		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		5.8501E-02	5.8501E-02	1.1753E-02	3.1765E-04	3.1765E-07	grams	kg
grams		spec activity	Half life				6.2285E-12	6.2285E-15
5429840		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		2.4437E-01	1.7741E-01	3.5643E-02	9.6333E-04	9.6333E-07	grams	kg
grams		spec activity	Half life				9.6333E-07	9.6333E-10
5429840		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		5.2736E-01	7.4802E-01	1.5028E-01	4.0616E-03	4.0616E-06	grams	kg
grams		spec activity	Half life				1.5043E-08	1.5043E-11
5429840		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		6.3217E-02	6.3217E-02	1.2701E-02	3.4326E-04	3.4326E-07	grams	kg
grams		spec activity	Half life				1.1073E-11	1.1073E-14
5429840		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		4.8660E-01	8.7880E-01	1.7655E-01	4.7717E-03	4.7717E-06	grams	kg
grams		spec activity	Half life				5.8192E-09	5.8192E-12
5429840		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		5.2736E-01	3.9130E-01	7.8613E-02	2.1247E-03	2.1247E-06	grams	kg
grams		spec activity	Half life				1.0118E-04	1.0118E-07
5429840		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		5.2736E-01	7.4802E-01	1.5028E-01	4.0616E-03	4.0616E-06	grams	kg
grams		spec activity	Half life				3.6924E+01	3.6924E-02
5429840		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		1.2900E+01	1.1455E+01	2.3014E+00	6.2200E-02	6.2200E-05	grams	kg
grams		spec activity	Half life				1.0032E-02	1.0032E-05
5429840		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		7.5960E-01	9.7260E-01	1.9540E-01	5.2811E-03	5.2811E-06	grams	kg
grams		spec activity	Half life				2.4005E+00	2.4005E-03
5429840		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
11960		1.2900E+01	1.7409E+01	3.4976E+00	9.4529E-02	9.4529E-05	grams	kg
grams		spec activity	Half life				2.7803E+02	2.7803E-01
5429840		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
11960		2.9326E+01	3.3170E+01	6.6768E+00	1.8045E-01	1.8045E-04	grams	kg
Volume-cc			pCi/g	541 will be < than the 540 (MDA not added)			2.4005E+00	3.1496E-01
200				data for NORM				
	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	3.6930E+00	9.9810E-02	9.9810E-05		kg
		spec activity						1.4058E-01
		7.1000E-07						

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	6.6768E+00	1.8045E-01	1.8045E-04		kg total
							1.7751E-01

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Container # 9228

Take off container wt

Shipping Check Sheet (For Form 540)

weight lbs	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	1.0747E-02	2.9045E-04	2.9045E-07	grams	kg
grams		spec activity	pCi/g				4.0340E-09	4.0340E-12
4594480		7.2000E+01	Half life					
weight lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
10120		2.6818E-01	2.6818E-01	4.5590E-02	1.2322E-03	1.2322E-06	grams	kg
grams		spec activity	Half life				2.6216E-05	2.6216E-08
4594480		4.7000E-02	32.76 yrs					
weight lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		5.8501E-02	5.8501E-02	9.9449E-03	2.6878E-04	2.6878E-07	grams	kg
grams		spec activity	Half life				5.2702E-12	5.2702E-15
4594480		5.1000E+04	11.434 days					
weight lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		2.4437E-01	1.7741E-01	3.0160E-02	8.1512E-04	8.1512E-07	grams	kg
grams		spec activity	Half life				8.1512E-07	8.1512E-10
4594480		1.0000E+00	1.6 Thousand yrs					
weight lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		5.2736E-01	7.4802E-01	1.2716E-01	3.4368E-03	3.4368E-06	grams	kg
grams		spec activity	Half life				1.2729E-08	1.2729E-11
4594480		2.7000E+02	5.75 yrs					
weight lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		6.3217E-02	6.3217E-02	1.0747E-02	2.9045E-04	2.9045E-07	grams	kg
grams		spec activity	Half life				9.3693E-12	9.3693E-15
4594480		3.1000E+04	18.718 days					
weight lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		4.8660E-01	8.7880E-01	1.4939E-01	4.0376E-03	4.0376E-06	grams	kg
grams		spec activity	Half life				4.9239E-09	4.9239E-12
4594480		8.2000E+02	1.913 yrs					
weight lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		5.2736E-01	3.9130E-01	6.6519E-02	1.7978E-03	1.7978E-06	grams	kg
grams		spec activity	Half life				8.5610E-05	8.5610E-08
4594480		2.1000E-02	77 Thousand yrs					
weight lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		5.2736E-01	7.4802E-01	1.2716E-01	3.4368E-03	3.4368E-06	grams	kg
grams		spec activity	Half life				3.1243E+01	3.1243E-02
4594480		1.1000E-07	1.4+4 Million yrs					
weight lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		1.2900E+01	1.1455E+01	1.9473E+00	5.2631E-02	5.2631E-05	grams	kg
grams		spec activity	Half life				8.4889E-03	8.4889E-06
4594480		6.2000E-03	244.5 Thousand yrs					
weight lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		7.5960E-01	9.7260E-01	1.6534E-01	4.4686E-03	4.4686E-06	grams	kg
grams		spec activity	Half life				2.0312E+00	2.0312E-03
4594480		2.2000E-06	703.8 Million yrs					
weight lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
10120		1.2900E+01	1.7409E+01	2.9595E+00	7.9986E-02	7.9986E-05	grams	kg
grams		spec activity	Half life				2.3525E+02	2.3525E-01
4594480		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
10120		2.9326E+01	3.3170E+01	5.6496E+00	1.5269E-01	1.5269E-04	grams	kg
total			pCi/g	541 will be < than the 540 (MDA not added)			2.0312E+00	2.6650E-01
200			data for NORM					
	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	3.1248E+00	8.4454E-02	8.4454E-05		kg
		spec activity						1.1895E-01
		7.1000E-07						

U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	5.6496E+00	1.5269E-01	1.5269E-04		kg total
							1.5020E-01

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Container # 9227

Take off container wt

Shipping Check Sheet (For Form 540)

weight (lbs)	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	9.2175E-03	2.4912E-04	2.4912E-07	grams	kg
grams		specific activity	pCi/g				3.4600E-09	3.4600E-12
3940720		7.2000E+01	Half life					
weight-lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
8680		2.6818E-01	2.6818E-01	3.9103E-02	1.0568E-03	1.0568E-06	grams	kg
grams		specific activity	Half life				2.2486E-05	2.2486E-08
3940720		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		5.8501E-02	5.8501E-02	8.5298E-03	2.3054E-04	2.3054E-07	grams	kg
grams		specific activity	Half life				4.5203E-12	4.5203E-15
3940720		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		2.4437E-01	1.7741E-01	2.5868E-02	6.9914E-04	6.9914E-07	grams	kg
grams		specific activity	Half life				6.9914E-07	6.9914E-10
3940720		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		5.2736E-01	7.4802E-01	1.0907E-01	2.9477E-03	2.9477E-06	grams	kg
grams		specific activity	Half life				1.0918E-08	1.0918E-11
3940720		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		6.3217E-02	6.3217E-02	9.2175E-03	2.4912E-04	2.4912E-07	grams	kg
grams		specific activity	Half life				8.0361E-12	8.0361E-15
3940720		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		4.8660E-01	8.7880E-01	1.2813E-01	3.4631E-03	3.4631E-06	grams	kg
grams		specific activity	Half life				4.2233E-09	4.2233E-12
3940720		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		5.2736E-01	3.9130E-01	5.7054E-02	1.5420E-03	1.5420E-06	grams	kg
grams		specific activity	Half life				7.3428E-05	7.3428E-08
3940720		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		5.2736E-01	7.4802E-01	1.0907E-01	2.9477E-03	2.9477E-06	grams	kg
grams		specific activity	Half life				2.6798E+01	2.6798E-02
3940720		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		1.2900E+01	1.1455E+01	1.6703E+00	4.5142E-02	4.5142E-05	grams	kg
grams		specific activity	Half life				7.2810E-03	7.2810E-06
3940720		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		7.5960E-01	9.7260E-01	1.4181E-01	3.8328E-03	3.8328E-06	grams	kg
grams		specific activity	Half life				1.7422E+00	1.7422E-03
3940720		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
8680		1.2900E+01	1.7409E+01	2.5384E+00	6.8604E-02	6.8604E-05	grams	kg
grams		specific activity	Half life				2.0178E+02	2.0178E-01
3940720		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
8680		2.9326E+01	3.3170E+01	4.8457E+00	1.3096E-01	1.3096E-04	grams	kg
weight-lbs			pCi/g	541 will be < than the 540 (MDA not added)			1.7422E+00	2.2858E-01
200				data for NORM				
	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	2.6802E+00	7.2437E-02	7.2437E-05		kg
		specific activity						1.0202E-01
		7.1000E-07						

U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	4.8457E+00	1.3096E-01	1.3096E-04		kg total
							1.2883E-01

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Container # 9226

Take off container wt

Shipping Check Sheet (For Form 540)

[redacted]	Ac-227	[redacted]	corrected	activity mBq	activity mCi	activity Ci	SNM	source
[redacted]		6.3217E-02	6.3217E-02	7.4759E-03	2.0205E-04	2.0205E-07	grams	kg
grams		[redacted]	pCi/g				2.8063E-09	2.8063E-12
3196160		7.2000E+01	Half life					
[redacted]	Pa-231	[redacted]	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
7040		2.6818E-01	2.6818E-01	3.1715E-02	8.5715E-04	8.5715E-07	grams	kg
grams		[redacted]	Half life				1.8237E-05	1.8237E-08
3196160		4.7000E-02	32.76 yrs					
[redacted]	Ra-223	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		5.8501E-02	5.8501E-02	6.9182E-03	1.8698E-04	1.8698E-07	grams	kg
grams		[redacted]	Half life				3.6662E-12	3.6662E-15
3196160		5.1000E+04	11.434 days					
[redacted]	Ra-226	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		2.4437E-01	1.7741E-01	2.0981E-02	5.6704E-04	5.6704E-07	grams	kg
grams		[redacted]	Half life				5.6704E-07	5.6704E-10
3196160		1.0000E+00	1.6 Thousand yrs					
[redacted]	Ra-228	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		5.2736E-01	7.4802E-01	8.8459E-02	2.3908E-03	2.3908E-06	grams	kg
grams		[redacted]	Half life				8.8548E-09	8.8548E-12
3196160		2.7000E+02	5.75 yrs					
[redacted]	Th-227	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		6.3217E-02	6.3217E-02	7.4759E-03	2.0205E-04	2.0205E-07	grams	kg
grams		[redacted]	Half life				6.5178E-12	6.5178E-15
3196160		3.1000E+04	18.718 days					
[redacted]	Th-228	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		4.8660E-01	8.7880E-01	1.0392E-01	2.8088E-03	2.8088E-06	grams	kg
grams		[redacted]	Half life				3.4253E-09	3.4253E-12
3196160		8.2000E+02	1.913 yrs					
[redacted]	Th-230	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		5.2736E-01	3.9130E-01	4.6274E-02	1.2506E-03	1.2506E-06	grams	kg
grams		[redacted]	Half life				5.9555E-05	5.9555E-08
3196160		2.1000E-02	77 Thousand yrs					
[redacted]	Th-232	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		5.2736E-01	7.4802E-01	8.8459E-02	2.3908E-03	2.3908E-06	grams	kg
grams		[redacted]	Half life				2.1735E+01	2.1735E-02
3196160		1.1000E-07	1.4+4 Million yrs					
[redacted]	U-234	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		1.2900E+01	1.1455E+01	1.3547E+00	3.6613E-02	3.6613E-05	grams	kg
grams		[redacted]	Half life				5.9053E-03	5.9053E-06
3196160		6.2000E-03	244.5 Thousand yrs					
[redacted]	U-235	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		7.5960E-01	9.7260E-01	1.1502E-01	3.1086E-03	3.1086E-06	grams	kg
grams		[redacted]	Half life				1.4130E+00	1.4130E-03
3196160		2.2000E-06	703.8 Million yrs					
[redacted]	U-238	[redacted]		activity mBq	activity mCi	activity Ci	SNM	source
7040		1.2900E+01	1.7409E+01	2.0588E+00	5.5642E-02	5.5642E-05	grams	kg
grams		[redacted]	Half life				1.6365E+02	1.6365E-01
3196160		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

[redacted]		[redacted]	corrected	activity mBq	activity mCi	activity Ci	SNM	source
7040		2.9326E+01	3.3170E+01	3.9301E+00	1.0622E-01	1.0622E-04	grams	kg
[redacted]			pCi/g	541 will be < than the 540 (MDA not added)			1.4130E+00	1.8539E-01
120			data for NORM					
	U-nat	[redacted]	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	2.1738E+00	5.8751E-02	5.8751E-05		kg
		[redacted]						8.2748E-02
		7.1000E-07						

U-nat	[redacted]	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	3.9301E+00	1.0622E-01	1.0622E-04		kg total
							1.0449E-01

Ship[illegible]nt Survey

Survey Number: GTE051-06-00095 Date: 10-12-06 Time: 1500

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9233 Storage Bin: 16 Gross Weight: 13570 lbs

gross WT 13,570-lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		
Serial #	191247		N/A		N/A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.05 mrem/hr Transport Index: 0 mrem/hr

COPY

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	[illegible]	N/A	5000
Smear #				
1	2	<MDA	2	<MDA
2	2		5	
3	2		8	
4	1		3	
5	2		9	
6	1		10	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner

Surveyor Name

MCh

Surveyor Signature

MCh

Supervisor Approval

Ship it Survey

Survey Number: GTE 051-06-00094 Date: 10-12-06 Time: 1500

Waste Container Type: (Super Sack) Intermodal Other: N/A

Waste Container ID #: 9232 Storage Bin: 17 Gross Weight: 15510 lbs

gross wt 15510-lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N/A		N/A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

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Maximum Contact Dose Rate: 0.05 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	50	N/A	500
Smear #				
1	3	<MDA	8	<MDA
2	2		10	
3	2		4	
4	1		5	
5	0		7	
6	2		9	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner

Surveyor Name

Surveyor Signature

Supervisor Approval

Ship nt Survey

Survey Number: GTE051-06-00093 Date: 10-12-06 Time: 1500

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9231 Storage Bin: 15 Gross Weight: 15690 lbs

gross weight 15690 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N/A		N/A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.05 mrem/hr Transport Index: 80 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	600
Smear #				
1	0	<MDA	8	<MDA
2	1		6	
3	0		4	
4	1		9	
5	0		12	
6	0		6	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

MCK
Surveyor Signature

MCK
Supervisor Approval

Ship. it Survey

Survey Number: GTE051-06-00092 Date: 10-12-06 Time: 1500

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9230 Storage Bin: 16 Gross Weight: 14020 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		N/A		N/A		196118
Probe #	N/A						N/A
Calibration Due Date:	5/1/07						5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	cpm	cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	%	%	%	%	
MDA	25 dpm	130 dpm	dpm	dpm	dpm	dpm	

COPY

Maximum Contact Dose Rate: 0.1 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	2	<MDA	12	<MDA
2	0		6	
3	1		10	
4	1		11	
5	1		10	
6	0		8	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

gross wt 14,020-lbs

Ship it Survey

Survey Number: GTE051-06-0076 Date: 10-9-06 Time: 1045

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9229 Storage Bin: 16 Gross Weight: 12040 lbs

gross WT 12,040-lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM 19
Serial #	191247		196165				196118
Probe #	N/A		N/A		N/A		N/A
Calibration Due Date:	5/1/07		8/3/07				5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.15 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	1	<MDA	10	<MDA
2	1		6	
3	0		4	
4	0		5	
5	0		7	
6	2		9	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

mch
Surveyor Signature

mch
Supervisor Approval

COPY

Ship[illegible]it Survey

Survey Number: GTE051 - 06 - 00075 Date: 10-9-06 Time: 1040

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9228 Storage Bin: 14 Gross Weight: 10,200 lbs

gross wt 10200-lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM19
Serial #	191247		196165				196118
Probe #	N/A		N/A		N/A		N/A
Calibration Due Date:	5/1/07		8/3/07				5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.15 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	0	<MDA	0	<MDA
2	1		7	
3	1		5	
4	1		8	
5	0		6	
6	0		4	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

MCh
Surveyor Signature

MCh
Supervisor Approval

COPY

Ship t Survey

Survey Number: GTE051-06-00074 Date: 10-9-06 Time: 1035

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9227 Storage Bin: 15 Gross Weight: 8760 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		LM 19
Serial #	191247		196165				196118
Probe #	N/A		N/A		N/A		N/A
Calibration Due Date:	5/1/07		8/3/07				5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.15 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	1	<MDA	6	<MDA
2	1		8	
3	0		10	
4	1		9	
5	2		3	
6	1		5	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

mch
Surveyor Signature

mch
Supervisor Approval

COPY

Gross WT 8760-lbs

Ship[illegible]nt Survey

Survey Number: GTE051-06-00073 Date: 10-9-06 Time: 1030

Waste Container Type: Super Sack Intermodal Other: N/A

Waste Container ID #: 9226 Storage Bin: 15 Gross Weight: 7120 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		Ludlum 19
Serial #	191247		196165				196118
Probe #	N/A		N/A		N/A		N/A
Calibration Due Date:	5/1/07		8/3/07				5/1/07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	cpm	cpm	5 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.25 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100 cm2	β cpm	β dpm/100 cm2
ALARA Limit	N/A	60	N/A	500
Smear #				
1	0	<MDA	8	<MDA
2	1		9	
3	2		0	
4	1		5	
5	1		3	
6	1		7	

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Richard Hafner
Surveyor Name

Surveyor Signature

Supervisor Approval

GROSS WT 7120 LBS

L100242

ARRIVED: 11/20/2006

RECORD: 0840-01-0987

HAZ_MANIFEST:

VEHICLE_ID: MHFX5295

CUFEET: 1520

Waste Type: NORM

Conveyance Release Survey:

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ==== 8

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

EPA MANIFEST NUMBER

5 SHIPPER -- NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

Utah Generator Site Access Permit No: 026 500 1362

SHIPMENT NUMBER: MHFX-6295

CONTACT: Jean Agostinelli

6 CARRIER -- Name and Address
Priority Transport Services, Inc
391 Anthony Street
Schenectady, NY 12308

CONTACT: Dispatch

SIGNATURE -- Authorized carrier acknowledging waste receipt

SHIPPER I D NUMBER: 0840-01-987

☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 908 553 3686

EPA I D NUMBER: NYR000104976

SHIPPING DATE: 11/07/2006

TELEPHONE (Include Area Code): 800-236 0069

DATE: 11-7-06

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): 0840-01-987

9 CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Bulk Waste Facility)
Interstate 80 Exit 49
Clive, UT 84029

L 100242

CONTACT: Shipping and Receiving

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

SIGNATURE -- Authorized consignee acknowledging waste receipt

DATE: 11/27/06

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 requirements of 10 CFR Parts 20 and 61 or equivalent state regulations

AUTHORIZED SIGNATURE | TITLE: Broker | DATE: 11-7-06

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3.9301E+00	1.0622E-01	NA	7120 LBS, 120 FT3	9226
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	4.8457E+00	1.3096E-01	NA	8760 LBS, 200 FT3	9227
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	5.6496E+00	1.5269E-01	NA	10200 LBS; 200 FT3	9228
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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) 0840-01-967

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
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	6.6768E+00	1 8045E-01	NA	12040 LBS; 200 FT3	9229
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7 7821E+00	2 1033E-01	NA	14020 LBS, 200 FT3	9230
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8 7144E+00	2 3553E-01	NA	15690 LBS, 200 FT3	9231
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	8.6139E+00	2 3281E-01	NA	15510 LBS; 200 FT3	9232
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Soil, DOT NON Regulated, Containing Radionuclides	NA	NA	Solid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	7.5309E+00	2 0354E-01	NA	13570 LBS; 200 FT3	9233
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

FORM 540A (03-06)

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
8	m3 43 0418 / ft3 1520 0000	kg 43667.3404 / ton 48 1350	NP	NP	NP	NP

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	5 3744E+01	NP	NP	NP	NP	(kg)	1 4288E+00
mCi	1.4525E+00	NP	NP	NP	NP	(tons)	1 5750E-03

2 MANIFEST NUMBER 0840-01-987

3 PAGE 1 OF 4 PAGE(S)

4 SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-01-987

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
9226/GTEOSI	19 Strong Tight Container Loaded in Gondola	3 3980	3229 6779	0 0625	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	3 3980	100	OXIDES/NONE	0 00	Ac-227	6 32736E-02	7.4759E-03	2 0205E-04	AU
		120 0000	3 5600	0 2500	<2 2000E+02	<2 2000E+03		120 0000				Pa-231	2 68424E-01	3 1715E-02	8 5715E-04	
												Ra-223	5 85543E-02	6 9183E-03	1 8698E-04	
												Ra-226	1 77573E-01	2 0980E-02	5 6704E-04	
												Ra-228	7 48699E-01	8 8460E-02	2 3908E-03	
												Th-227 [6 5178E-15 kg]	6 32736E-02	7.4759E-03	2.0205E-04	
												Th-228 [3 4255E-12 kg]	8.79630E-01	1 0393E-01	2 8089E-03	
												Th-230 [5 9555E-08 kg]	3 91667E-01	4 6276E-02	1 2507E-03	
												Th-232 [2.1735E-02 kg]	7 48699E-01	8 8460E-02	2 3908E-03	
												U-234 [5 9053E-06 kg]	1.14657E+01	1 3547E+00	3 6613E-02	
												U-Nat [8 2748E-02 kg]	1 83984E+01	2.1738E+00	5 8751E-02	
												Subtotal		3 9302E+00	1 0622E-01	
												Total		3 9302E+00	1 0622E-01	
												Source [1 0449E-01 kg]				
9227/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	3973 4894	0 0015	<3 6740E-06	<3 6740E-05	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32740E-02	9 2174E-03	2.4912E-04	AU
		200 0000	4 3800	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68417E-01	3 9102E-02	1.0568E-03	
												Ra-223	5 85549E-02	8 5300E-03	2 3054E-04	
												Ra-226	1 77575E-01	2 5868E-02	6 9914E-04	
												Ra-228	7 48687E-01	1 0906E-01	2 9477E-03	
												Th-227 [8.0362E-15 kg]	6 32740E-02	9 2174E-03	2 4912E-04	
												Th-228 [4 2234E-12 kg]	8.79619E-01	1.2814E-01	3.4632E-03	
												Th-230 [7 3428E-08 kg]	3 91653E-01	5 7054E-02	1 5420E-03	
												Th-232 [2 6798E-02 kg]	7 48687E-01	1 0906E-01	2 9477E-03	

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 Seavan

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 (03-06)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												U-234 [7 2810E-06 kg]	1.14656E+01	1 6703E+00	4.5142E-02	
												U-Nat [1 0202E-01 kg]	1.83983E+01	2.6802E+00	7.2437E-02	
												Subtotal		4 8457E+00	1 3096E-01	
												Total		4 8457E+00	1 3096E-01	
												Source [1 2883E-01 kg]				
9228/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	4626 6425	0 0015	<3 6740E-06	<3 6740E-06	22,69 CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6.32743E-02	1 0747E-02	2.9045E-04	AU
		200 0000	5 1000	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2.68434E-01	4 5591E-02	1 2322E-03	
												Ra-223	5 85535E-02	9 9449E-03	2 6878E-04	
												Ra-226	1.77573E-01	3.0159E-02	8 1512E-04	
												Ra-228	7.48704E-01	1 2716E-01	3.4368E-03	
												Th-227 [9.3693E-15 kg]	6.32743E-02	1 0747E-02	2 9046E-04	
												Th-228 [4 9241E-12 kg]	8 79632E-01	1 4940E-01	4 0378E-03	
												Th-230 [8 5610E-08 kg]	3 91649E-01	6 6519E-02	1 7978E-03	
												Th-232 [3 1243E-02 kg]	7.48704E-01	1 2716E-01	3 4368E-03	
												U-234 [8 4889E-06 kg]	1 14656E+01	1 9473E+00	5 2631E-02	
												U-Nat [1.1895E-01 kg]	1 83982E+01	3 1248E+00	8 4454E-02	
												Subtotal		5 6495E+00	1 5269E-01	
												Total		5 6495E+00	1 5269E-01	
												Source [1 5020E-01 kg]				
9229/GTEOSI	19 Strong Tight Container Loaded in Gondola	5 6634	5461 2625	0 0015	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32745E-02	1 2701E-02	3 4326E-04	AU
		200 0000	6 0200	0 1500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2.68427E-01	5 3879E-02	1 4562E-03	
												Ra-223	5 85537E-02	1.1753E-02	3 1765E-04	
												Ra-226	1.77574E-01	3.5643E-02	9.6333E-04	
												Ra-228	7.48691E-01	1.5028E-01	4 0616E-03	
												Th-227 [1.1073E-14 kg]	6 32745E-02	1 2701E-02	3 4326E-04	
												Th-228 [5.8194E-12 kg]	8 79623E-01	1 7656E-01	4.7719E-03	
												Th-230 [1 0118E-07 kg]	3.91654E-01	7 8614E-02	2.1247E-03	
												Th-232 [3.6924E-02 kg]	7.48691E-01	1.5028E-01	4 0616E-03	
												U-234 [1.0032E-05 kg]	1 14656E+01	2 3014E+00	6 2200E-02	
												U-Nat [1 4058E-01 kg]	1.83984E+01	3.6930E+00	9.9810E-02	
												Subtotal		6.6768E+00	1.8045E-01	
												Total		6 6768E+00	1 8045E-01	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

3 PAGE 3 OF 4 PAGE(S)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												Source [1 7751E-01 kg]				
9230/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	6369 3654	0 0610	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32749E-02	1 4803E-02	4 0009E-04	AU
		200 0000	7 0108	0 1000	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68431E-01	6 2800E-02	1 6973E-03	
												Ra-223	5 85541E-02	1.3699E-02	3 7024E-04	
												Ra-226	1.77573E-01	4.1544E-02	1.1228E-03	
												Ra-228	7.48706E-01	1 7516E-01	4.7341E-03	
												Th-227 [1 2906E-14 kg]	6.32749E-02	1.4803E-02	4 0009E-04	
												Th-228 [6 7828E-12 kg]	8 79624E-01	2 0579E-01	5 5619E-03	
												Th-230 [1.1793E-07 kg]	3 91647E-01	9 1627E-02	2 4764E-03	
												Th-232 [4 3037E-02 kg]	7.48706E-01	1 7516E-01	4 7341E-03	
												U-234 [1 1693E-05 kg]	1 14657E+01	2 6824E+00	7.2498E-02	
												U-Nat [1 6385E-01 kg]	1 83978E+01	4 3042E+00	1.1633E-01	
												Subtotal		7.7820E+00	2.1033E-01	
												Total		7.7820E+00	2 1033E-01	
												Source [2 0690E-01 kg]				
9231/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	7116 8645	0 0085	<3 6740E-06	<3 6740E-06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32748E-02	1.6577E-02	4.4802E-04	AU
		200 0000	7 8450	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68426E-01	7.0322E-02	1 9006E-03	
												Ra-223	5.85534E-02	1 5340E-02	4 1459E-04	
												Ra-226	1.77571E-01	4 6520E-02	1 2573E-03	
												Ra-228	7 48700E-01	1 9614E-01	5.3012E-03	
												Th-227 [1 4452E-14 kg]	6.32748E-02	1.6577E-02	4.4802E-04	
												Th-228 [7.5954E-12 kg]	8.79622E-01	2 3044E-01	6 2282E-03	
												Th-230 [1.3205E-07 kg]	3.91651E-01	1 0260E-01	2 7731E-03	
												Th-232 [4 8193E-02 kg]	7 48700E-01	1.9614E-01	5.3012E-03	
												U-234 [1 3094E-05 kg]	1.14657E+01	3.0038E+00	8 1183E-02	
												U-Nat [1 8348E-01 kg]	1.83983E+01	4.8200E+00	1.3027E-01	
												Subtotal		8 7145E+00	2.3553E-01	
												Total		8 7145E+00	2 3553E-01	
												Source [2 3168E-01 kg]				

FORM 541A (03-06)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-01-987

3 PAGE 4 OF 4 PAGE(S)

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9232/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	7035 2181	0 0005	<3 6740E-06	<3 6740E 06	22,69-CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32743E-02	1 6385E-02	4 4285E-04	AU
		200 0000	7 7550	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68428E-01	6 9512E-02	1 8787E-03	
												Ra-223	5 85535E-02	1 5163E-02	4 0981E-04	
												Ra-226	1 77571E-01	4 5984E-02	1 2428E-03	
												Ra-228	7 48704E-01	1 9388E-01	5 2401E-03	
												Th-227 [1 4286E-14 kg]	6 32743E-02	1 6385E-02	4.4285E-04	
												Th-228 [7 5078E-12 kg]	8 79625E-01	2 2779E-01	6 1564E-03	
												Th-230 [1.3053E-07 kg]	3.91648E-01	1.0142E-01	2 7411E-03	
												Th-232 [4 7637E-02 kg]	7 48704E-01	1 9388E-01	5 2401E-03	
												U-234 [1 2943E-05 kg]	1 14657E+01	2 9691E+00	8.0247E-02	
												U-Nat [1 8136E-01 kg]	1 83986E+01	4 7645E+00	1 2877E-01	
												Subtotal		8 6140E+00	2.3281E-01	
												Total		8.6140E+00	2 3281E-01	
												Source [2 2901E-01 kg]				
9233/GTEOSI	19 Strong Tight Container Loaded In Gondola	5 6634	6155 2489	0 0005	<3 6740E-06	<3 6740E-06	22,69 CONCRETE,69 -MISC DEBRIS-HJ	5 6634	100	OXIDES/NONE	0 00	Ac-227	6 32741E-02	1.4325E-02	3.8717E-04	AU
		200 0000	6 7850	0 0500	<2 2000E+02	<2 2000E+03		200 0000				Pa-231	2 68429E-01	6 0773E-02	1.6425E-03	
												Ra-223	5 85544E-02	1 3257E-02	3 5829E-04	
												Ra-226	1.77580E-01	4.0204E-02	1 0866E-03	
												Ra-228	7.48693E-01	1 6950E-01	4.5812E-03	
												Th-227 [1.2489E-14 kg]	6 32741E-02	1 4325E-02	3.8717E-04	
												Th-228 [6.5638E-12 kg]	8 79631E-01	1 9915E-01	5 3824E-03	
												Th-230 [1 1412E-07 kg]	3 91654E-01	8.8671E-02	2 3965E-03	
												Th-232 [4 1648E-02 kg]	7.48693E-01	1.6950E-01	4.5812E-03	
												U-234 [1.1316E-05 kg]	1 14656E+01	2 5958E+00	7 0157E-02	
												U-Nat [1 5856E-01 kg]	1 83986E+01	4 1655E+00	1 1258E-01	
												Subtotal		7 5310E+00	2 0354E-01	
												Total		7.5310E+00	2.0354E-01	
												Source [2.0022E-01 kg]				
Shipment Totals		43 8418	43967 6388									Source [1 4288E+00 kg]		5 3744E+01	1 4525E+00	
		1520 0000	48 4550													

FORM 541A (03-06)

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-01-987
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No 4A-288

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-01-987
EnergySolutions, LLC

	Total Activity		
Isotope	(MBq)	(mCi)	(Ci)
Ac-227	1 0223E-01	2 7630E-03	2 7630E-06
Pa-231	4.3369E-01	1 1721E-02	1 1721E-05
Ra-223	9 4605E-02	2 5569E-03	2 5569E-06
Ra-226	2 8690E-01	7 7541E-03	7 7541E-06
Ra-228	1 2097E+00	3 2693E-02	3.2693E-05
Th-227	1 0223E-01	2 7630E-03	2 7630E-06
Th-228	1 4212E+00	3 8411E-02	3 8411E-05
Th-230	6 3278E-01	1 7102E-02	1 7102E-05
Th-232	1 2097E+00	3 2693E-02	3 2693E-05
U-234	1 8525E+01	5 0067E-01	5 0067E-04
U-Nat	2 9726E+01	8 0340E-01	8 0340E-04

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

12-OCT-06 14:35 [illegible]

13570 lb GR

Bag# 9233

120C-0 1435 9233 0013570

14:[illegible] 12-OCT-[illegible]

1 13570 lb [illegible]

~~1 [illegible] lb TARE~~

~~1 [illegible] lb NET~~

10-12-06

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

1-OCT-06 12:58 Bag# [redacted]

15510 lb GR

110C-0 1258-[redacted] 0015510

Bag# 2932

92310

12:000 11-OCT-0600

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

Bag # 9231

9231

92340

12-OCT-06 11:02 Bag# [redacted]

15690 lb GR

120C-0 1102-[redacted] 0015690

11:010 12-OCT-060

1 15690 lb GR0590

~~1 15690 lb TARE0~~

~~1 000 lb NET~~

kr 10-17-06

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

9-OCT-06 16:14 Bag# 9230

14020 lb GR

090C-0 1614 9230 0014020

92300

16:140 9-OCT-060

1 14020 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

6-OCT-06 08:33 Bag# [redacted]
12040 lb GR
060C-0 0833 1865 0012040

BAG # 9229

18670

08:330 6-OCT-060

1 12040 lb 88088

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

4-OCT-06 14:58 Bag# [redacted]

10200 lb GR

040C-0 1458 1884 0010200

Bag# 9228

18640

14:58 4-OCT-06

1 10200 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

4-OCT-06 09:00 Bag# [redacted]
8760 lb GR
040C-0 0900 1863 0008760

Bag# 9227

18630

09:000 4-OCT-060

1 8760 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

2-OCT-06 15:23 Bag# [redacted]

7120 lb GR

020C-0 1523 1861 0007120

Bag#
9276

18610

15:230 2-OCT-060

1 7120 lb GR058

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: NYD002036515
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: **002825515 JJK**

5. Generator's Name and Mailing Address
GTE Operations Support Incorporated
One Verizon Way VC34W453, Basking Ridge, NJ 07920
Generator's Phone: 908-559-3687

Generator's Site Address (if different than mailing address)
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

6. Transporter 1 Company Name: Priority Transport Services
U.S. EPA ID Number: NYR000104996

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Energy Solutions
Clive Disposal Site Interstate 80, Exit 49
Facility's Phone: 435-884-0155 Clive, UT 84029
U.S. EPA ID Number: UTD982598878

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		
X	1. Waste Methanol, 3, UN1230, PG II (Containing Radioactive Isotopes, DOT NON Regulated)	1	DM	110	P	D001	F003	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ERG Book Guide #131 & 161
Emergency 24 Hr # Chemtrec 800-424-9300
Soil/Debris NOT
Container #
1040, 1041, 1042, 1043, 1044, 1045, 1046

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: Robert Miller
Signature:
Month / Day / Year:

INT'L

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

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: J. L. Cantu
Signature:
Month / Day / Year:
Transporter 2 Printed/Typed Name:
Signature:
Month / Day / Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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. L-H132 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:
Signature:
Month / Day / Year:

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

GENERATOR'S INITIAL COPY

FORM 540 — **EnergySolutions, LLC**

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST ====> 7

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? ☑ YES ☐ NO
If "Yes," provide Manifest Number ====> EPA MANIFEST NUMBER: 002825515JJK

5. SHIPPER -- NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

SHIPPER I.D. NUMBER: 0840-07-001
☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

Utah Generator Site Access Permit No.: 020 500 1352
SHIPMENT NUMBER: 0840-07-001

CONTACT: Jean Agostinelli
TELEPHONE NUMBER (Include Area Code): 908-559-3686

6. CARRIER -- Name and Address
Priority Transport Services, Inc.
391 Anthony Street
Schenectady, NY 12308

EPA I.D. NUMBER: NYR000104976
SHIPPING DATE: 12/04/2006

CONTACT: Dispatch
Truck# 38
Trailer# Q14235
TELEPHONE (Include Area Code): 800-235-0069

SIGNATURE – Authorized carrier acknowledging waste receipt
DATE: 11-4-06

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): 0840-07-001

9. CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Treatment Facility)
Interstate 80 Exit 49
Clive, UT 84029

CONTACT: Transportation Compliance
TELEPHONE (Include Area Code): 435-884-0155

SIGNATURE – Authorized consignee acknowledging waste receipt
DATE

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 requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: [signature] TITLE: Shipping Mgr DATE: 12-4-06

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
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	2.9588E-02	7.9967E-04	NA	280 LBS; 7.5 FT3	9240
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	3.0146E-02	8.1476E-04	NA	280 LBS; 7.5 FT3	9241
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	3.0146E-02	8.1476E-04	NA	270 LBS; 7.5 FT3	9242

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 540A

EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER (CONTINUATION)

8. MANIFEST NUMBER
(Use this number on all continuation pages)
0840-07-001

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, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.7355E-02	7.3932E-04	NA	250 LBS; 7.5 FT3	9243
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.5680E-02	6.9405E-04	NA	240 LBS; 7.5 FT3	9244
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.9588E-02	7.9967E-04	NA	280 LBS; 7.5 FT3	9245
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3.0146E-02	8.1476E-04	NA	280 LBS; 7.5 FT3	9246
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
7	m3	0.2693	kg	322.0506	NP	NP	NP	NP
	ft3	9.5100	ton	0.3550				

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	2.0265E-01	NP	NP	NP	NP	(kg)	5.3877E-03
mCi	5.4770E-03	NP	NP	NP	NP	(tons)	5.9389E-06

2. MANIFEST NUMBER 0840-07-001

3. PAGE 1 OF 4 PAGE(S)

4. SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-07-001

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: 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
9240/GTEOSI	4	0.2124	127.0059	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0394	100	OXIDES/NONE	0.00	Ac-227	3.22449E-02	5.6281E-05	1.5211E-06	AU
												Pa-231	1.36793E-01	2.3876E-04	6.4530E-06	
												Ra-223	2.98410E-02	5.2085E-05	1.4077E-06	
		7.5000	0.1400	0.0002	<2.2000E+02	<2.2000E+03		1.3900				Ra-226	9.04939E-02	1.5795E-04	4.2689E-06	
												Ra-228	3.81550E-01	6.6596E-04	1.7999E-05	
												Th-227 [4.9069E-17 kg]	3.22449E-02	5.6281E-05	1.5211E-06	
												Th-228 [2.5788E-14 kg]	4.48261E-01	7.8240E-04	2.1146E-05	
												Th-230 [4.4835E-10 kg]	1.99591E-01	3.4837E-04	9.4154E-06	
												Th-232 [1.6363E-04 kg]	3.81550E-01	6.6596E-04	1.7999E-05	
												U-234 [4.4458E-08 kg]	5.84313E+00	1.0199E-02	2.7564E-04	
												U-Nat [6.2296E-04 kg]	9.37605E+00	1.6365E-02	4.4230E-04	
												Subtotal		2.9588E-02	7.9967E-04	
												Total		2.9588E-02	7.9967E-04	
												Source [7.8663E-04 kg]				
9241/GTEOSI	4	0.2124	127.0059	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0399	100	OXIDES/NONE	0.00	Ac-227	3.25404E-02	5.7343E-05	1.5498E-06	AU
												Pa-231	1.38048E-01	2.4327E-04	6.5748E-06	
												Ra-223	3.01132E-02	5.3065E-05	1.4342E-06	
		7.5000	0.1400	0.0002	<2.2000E+02	<2.2000E+03		1.4100				Ra-226	9.13243E-02	1.6093E-04	4.3495E-06	
												Ra-228	3.85055E-01	6.7854E-04	1.8339E-05	
												Th-227 [4.9995E-17 kg]	3.25404E-02	5.7343E-05	1.5498E-06	
												Th-228 [2.6275E-14 kg]	4.52370E-01	7.9717E-04	2.1545E-05	
												Th-230 [4.5681E-10 kg]	2.01420E-01	3.5494E-04	9.5930E-06	
												Th-232 [1.6671E-04 kg]	3.85055E-01	6.7854E-04	1.8339E-05	

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 Seavan

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 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-07-001

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												U-234 [4.5296E-08 kg]	5.89666E+00	1.0391E-02	2.8084E-04	
												U-Nat [6.3471E-04 kg]	9.46208E+00	1.6674E-02	4.5065E-04	
												Subtotal		3.0146E-02	8.1476E-04	
												Total		3.0146E-02	8.1476E-04	
												Source [8.0147E-04 kg]				
9242/GTEOSI	4	0.2124	122.4699	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	.0.0402	100	OXIDES/NONE	0.00	Ac-227	3.22334E-02	5.7343E-05	1.5498E-06	AU
												Pa-231	1.36746E-01	2.4327E-04	6.5748E-06	
												Ra-223	2.98291E-02	5.3065E-05	1.4342E-06	
		7.5000	0.1350	0.0002	<2.2000E+02	<2.2000E+03		1.4200				Ra-226	9.04628E-02	1.6093E-04	4.3495E-06	
												Ra-228	3.81423E-01	6.7854E-04	1.8339E-05	
												Th-227 [4.9995E-17 kg]	3.22334E-02	5.7343E-05	1.5498E-06	
												Th-228 [2.6275E-14 kg]	4.48102E-01	7.9717E-04	2.1545E-05	
												Th-230 [4.5681E-10 kg]	1.99519E-01	3.5494E-04	9.5930E-06	
												Th-232 [1.6671E-04 kg]	3.81423E-01	6.7854E-04	1.8339E-05	
												U-234 [4.5296E-08 kg]	5.84103E+00	1.0391E-02	2.8084E-04	
												U-Nat [6.3471E-04 kg]	9.37281E+00	1.6674E-02	4.5065E-04	
												Subtotal		3.0146E-02	8.1476E-04	
												Total		3.0146E-02	8.1476E-04	
												Source [8.0147E-04 kg]				
9243/GTEOSI	4	0.2124	113.3981	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0362	100	OXIDES/NONE	0.00	Ac-227	3.26355E-02	5.2033E-05	1.4063E-06	AU
												Pa-231	1.38451E-01	2.2074E-04	5.9660E-06	
												Ra-223	3.02012E-02	4.8152E-05	1.3014E-06	
		7.5000	0.1250	0.0002	<2.2000E+02	<2.2000E+03		1.2800				Ra-226	9.15898E-02	1.4603E-04	3.9467E-06	
												Ra-228	3.86182E-01	6.1572E-04	1.6641E-05	
												Th-227 [4.5365E-17 kg]	3.26355E-02	5.2033E-05	1.4063E-06	
												Th-228 [2.3842E-14 kg]	4.53690E-01	7.2335E-04	1.9550E-05	
												Th-230 [4.1451E-10 kg]	2.02009E-01	3.2208E-04	8.7048E-06	
												Th-232 [1.5128E-04 kg]	3.86182E-01	6.1572E-04	1.6641E-05	
												U-234 [4.1102E-08 kg]	5.91376E+00	9.4287E-03	2.5483E-04	
												U-Nat [5.7594E-04 kg]	9.48967E+00	1.5130E-02	4.0892E-04	
												Subtotal		2.7355E-02	7.3931E-04	
												Total		2.7355E-02	7.3931E-04	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-07-001

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
												Source [7.2726E-04 kg]				
9244/GTEOSI	4	0.2124	108.8622	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0340	100	OXIDES/NONE	0.00	Ac-227	3.23395E-02	4.8847E-05	1.3202E-06	AU
												Pa-231	1.37194E-01	2.0723E-04	5.6007E-06	
												Ra-223	2.99267E-02	4.5203E-05	1.2217E-06	
		7.5000	0.1200	0.0002	<2.2000E+02	<2.2000E+03		1.2000				Ra-226	9.07599E-02	1.3709E-04	3.7051E-06	
												Ra-228	3.82675E-01	5.7801E-04	1.5622E-05	
												Th-227 [4.2588E-17 kg]	3.23395E-02	4.8847E-05	1.3202E-06	
												Th-228 [2.2382E-14 kg]	4.49574E-01	6.7906E-04	1.8353E-05	
												Th-230 [3.8914E-10 kg]	2.00178E-01	3.0236E-04	8.1719E-06	
												Th-232 [1.4202E-04 kg]	3.82675E-01	5.7801E-04	1.5622E-05	
												U-234 [3.8586E-08 kg]	5.86016E+00	8.8515E-03	2.3923E-04	
												U-Nat [5.4068E-04 kg]	9.40350E+00	1.4204E-02	3.8388E-04	
												Subtotal		2.5680E-02	6.9405E-04	
												Total		2.5680E-02	6.9405E-04	
												Source [6.8273E-04 kg]				
9245/GTEOSI	4	0.2124	127.0059	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0394	100	OXIDES/NONE	0.00	Ac-227	3.22449E-02	5.6281E-05	1.5211E-06	AU
												Pa-231	1.36793E-01	2.3876E-04	6.4530E-06	
												Ra-223	2.98410E-02	5.2085E-05	1.4077E-06	
		7.5000	0.1400	0.0002	<2.2000E+02	<2.2000E+03		1.3900				Ra-226	9.04939E-02	1.5795E-04	4.2689E-06	
												Ra-228	3.81550E-01	6.6596E-04	1.7999E-05	
												Th-227 [4.9069E-17 kg]	3.22449E-02	5.6281E-05	1.5211E-06	
												Th-228 [2.5788E-14 kg]	4.48261E-01	7.8240E-04	2.1146E-05	
												Th-230 [4.4835E-10 kg]	1.99591E-01	3.4837E-04	9.4154E-06	
												Th-232 [1.6363E-04 kg]	3.81550E-01	6.6596E-04	1.7999E-05	
												U-234 [4.4458E-08 kg]	5.84313E+00	1.0199E-02	2.7564E-04	
												U-Nat [6.2296E-04 kg]	9.37605E+00	1.6365E-02	4.4230E-04	
												Subtotal		2.9588E-02	7.9967E-04	
												Total		2.9588E-02	7.9967E-04	
												Source [7.8663E-04 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2. MANIFEST NUMBER 0840-07-001

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION				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 & 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)	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	
9246/GTEOSI	4	0.2124	127.0059	0.0000	<3.6740E-06	<3.6740E-05	28,22,59-Liquid Methanol	0.0402	100	OXIDES/NONE	0.00	Ac-227	3.22334E-02	5.7343E-05	1.5498E-06	AU
												Pa-231	1.36746E-01	2.4327E-04	6.5748E-06	
												Ra-223	2.98291E-02	5.3065E-05	1.4342E-06	
		7.5000	0.1400	0.0002	<2.2000E+02	<2.2000E+03		1.4200				Ra-226	9.04628E-02	1.6093E-04	4.3495E-06	
												Ra-228	3.81423E-01	6.7854E-04	1.8339E-05	
												Th-227 [4.9995E-17 kg]	3.22334E-02	5.7343E-05	1.5498E-06	
												Th-228 [2.6275E-14 kg]	4.48102E-01	7.9717E-04	2.1545E-05	
												Th-230 [4.5681E-10 kg]	1.99519E-01	3.5494E-04	9.5930E-06	
												Th-232 [1.6671E-04 kg]	3.81423E-01	6.7854E-04	1.8339E-05	
												U-234 [4.5296E-08 kg]	5.84103E+00	1.0391E-02	2.8084E-04	
												U-Nat [6.3471E-04 kg]	9.37281E+00	1.6674E-02	4.5065E-04	
												Subtotal		3.0146E-02	8.1476E-04	
												Total		3.0146E-02	8.1476E-04	
												Source [8.0147E-04 kg]				
Shipment Totals		1.4868	852.7538									Source [5.3877E-03 kg]		2.0265E-01	5.4770E-03	
		52.5000	0.9400													

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-07-001
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

7 Drums containing Vials with 10 ml of methanol and 10 grams of soil in each vial.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-07-001
EnergySolutions, LLC

Isotope	Total Activity (MBq)	(mCi)	(Ci)
Ac-227	3.8548E-04	1.0418E-05	1.0418E-08
Pa-231	1.6353E-03	4.4197E-05	4.4197E-08
Ra-223	3.5672E-04	9.6411E-06	9.6411E-09
Ra-226	1.0818E-03	2.9238E-05	2.9238E-08
Ra-228	4.5612E-03	1.2328E-04	1.2328E-07
Th-227	3.8548E-04	1.0418E-05	1.0418E-08
Th-228	5.3588E-03	1.4483E-04	1.4483E-07
Th-230	2.3860E-03	6.4487E-05	6.4487E-08
Th-232	4.5612E-03	1.2328E-04	1.2328E-07
U-234	6.9851E-02	1.8879E-03	1.8879E-06
U-Nat	1.1209E-01	3.0293E-03	3.0293E-06

Straight Bill of Lading

Shipper MHF-LS For GTE Operations Support Incorporated
140 Contiague Rock Road
Hicksville, NY 11369

Date: 12/4/2006

Consigned to MHF-LS
1290 Poland Ave
Youngstown, OH 44502

TR: 38 TL: Q14235

Quantity	Description		Weight lbs
2	loading frames		2,000
2	Lifting frames		4,000
		Total weight	6,000
	Serial #		
	1 -loading frame 990517		
	1 -loading frame 201137		
	1- lifting frame mlod 242017		
	1- lifting frame mlod 242027		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Rob Miller for MHFLS at GTEOSI			12/4/2006
Transporter	Signature		Date
	PTS		12/4/2006

Straight Bill of Lading

Shipper	MHF-LS For GTE Operations Support Incorporated 140 Contiague Rock Road Hicksville, NY 11369	Date: 12/4/2006
Consigned to	Priority Transport Services, Inc. 391 Anthony Street Schenectady, NY 12308	Load in Truck # 38
Emergency Contact:	CHEMTREC 800-424-9300	
DESTANATION-------	Ship to Energy Solutions, LLC	
TR: 38 Trailer # 014235	Clive Disposal Site Interstate 80, exit 49 Clive, UT 84029	

Quantity	Description		Gross Weight
7	Waste, Methanol, 3, UN1230 PGII		
	(Containing Radionuclides, DOT NON Regulated)		
	Package ID Number		**Pounds:**
	drum #	9240	280
		9241	280
		9242	270
		9243	250
	Packages do not meet the DOT "radioactive material"	9244	240
	definition in 49 CFR 173.403.	9245	280
		9246	280
			Total:
			1880
	Radionuclide: Ac-227,Th-227,U238, Th232, Th230,Pa-231,Ra-223		
	Ra-226,Ra-228,Th-228,U-234,U-235,		
	Total Activity: 3.8389 MBq		
	Physical Form: Liquid Methanol / Soil		
	Chemical Form: liquid Oxide		

GENERATOR CERTIFICATION: I hereby certify and 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.

Printed/Typed Name	Signature		Date
Robert Miller for MHFLS at GTEOSI			12/4/2006
Transporter	Signature		Date
Priority Transport			12/4/2006

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

Generator Name: GTE-Operations Support Incorporated Manifest: 0840-07-001

File No.: 0840-07 Haz Manifest No.: 0028825515JJK

Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261. For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory. Spent solvent standards are listed on the following page. If F039, multi-source leachate applies those constituents must be listed and attached by the generator. If D001-D043 requires treatment of the characteristic and meet 268.48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

[illegible]	1. USEPA HAZARDOUS WASTE CODE(S)	2. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION [illegible] DESCRIPTION	[illegible]	[illegible]
1	D001	Subject to the alternative treatment standard for soil - 40 CFR Part 268.49	☐	A1
2	F003	Subject to the alternative treatment standard for soil - 40 CFR Part 268.49	☐	A1
3			☐	
4			☐	

o identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☒
no UHCs are present in the waste upon its initial generation check here: ☐
o list additional USEPA waste code(s) and subcategorie(s), use the supplemental sheet provided (Form A2) and check here: ☐

OW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A1, A2, B1, B2 ,B3, B4, C, D, or E) below that describes how the waste must be managed to comply with ıe land disposal regulations (40 CFR 268.7). Please understand that if you enter the letter A2, B1, B2, B3, B4, or D you are making the appropriate certification as provided below. States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below. Where these regulatory citations differ, your ertification will be deemed to refer to those state citations instead of the 40 CFR citations.)

1 **RESTRICTED WASTE REQUIRES TREATMENT**
This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268.40.
☐ For Hazardous Debris: "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268.45."
☒ For Contaminated Soil: "I certify under penalty of law that I personally have examined this contaminated soil and it (dose) contain listed hazardous waste and (does/~~does not~~) exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by 268.49 (c)"

2 **DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS**
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

1 **RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS**
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR Part 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

2 **CONTAMINATED SOIL TREATED TO PERFORMANCE STANDARDS**
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilutions of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

3 **CONTAMINATED SOIL TREATED TO ALTERNATIVE TREATMENT STANDARDS**
"This contaminated soil (does/does not) contain listed hazardous waste and (does/does not) exhibit a characteristic of hazardous waste and (is subject to/complies with) the soil treatment standards as provided by 268.49(c) or the universal treatment standards."

4 **DECHARACTERIZED WASTE CONTAINING UNDERLYING HAZARDOUS CONSTITUENTS TREATED TO PERFORMANCE STANDARDS**
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in § 268.2(i) have been treated on-site to meet the § 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension and may be land disposed without further treatment. Enter the effective date of prohibition in column 5 above.

RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS
This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions.

hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

Signature [signature] Title Broker Mgr Date 12-4-06

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (PHASE IV) – REVERSE SIDE

the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes: F001, F002, F003, F004, F005, and all solvent constituents will ɔt be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous ıge of this form. If the waste code F039 describes this waste, then the corresponding list of constituents must be attached. If D001-D043 require treatment to 268.48 standards, then the ıderlying hazardous constituent(s) must also be attached.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
cetone (F003)	0.28	160	Methanol (F003) X	5.6	0.75 (TCLP)[3]
enzene (F005)	0.14	10	Methylene chloride (F001, F002)	0.089	30
-Butanol (n-butyl alcohol) (F003)	5.6	2.6	Methyl ethyl ketone (F005)	0.28	36
arbon disulfide (F005)	3.8	4.8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0.14	33
arbon tetrachloride (F001)	0.057	6.0	Nitrobenzene (F004)	0.068	14
hlorobenzene (F002)	0.057	6.0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
-Cresol (F004)	0.11	5.6	Pyridine (F005)	0.014	16
resol (m- and p- isomers) (F004)	0.77	5.6	Tetrachloroethylene (F001, F002)	0.056	6.0
yclohexanone (F003)	0.36	0.75 (TCLP)[3]	Toluene (F005)	0.080	10
-Dichlorobenzene (F002)	0.088	6.0	1,1,1-Trichloroethane (F001, F002)	0.054	6.0
-Ethoxyethanol (F005) also called thylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0.054	6.0
thyl acetate (F003)	0.34	33	Trichloroethylene (F001, F002)	0.054	6.0
thyl benzene (F003)	0.057	10	Trichloromonofluoromethane (F002)	0.020	30
er (F003)	0.12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0.057	30
ɔobutanol (Isobutyl Alcohol) (F005)	5.6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0.32	30

All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted. Wastewater units are mg/l, nonwastewater are mg/kg.

For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x ıe standard listed.

These solvents require a TCLP standard with units of mg/l.

SUBCATEGORY REFERENCE

)001:

.. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems.

:. Ignitable characteristic wastes, except for the 40 CFR 261.21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems.

:. High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a) (1) – Greater than or equal to 10% total organic carbon.

)002:

). Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems.

:. Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems.

F039/UNDERLYING HAZARDOUS CONSTITUENT FORM (UTS)
(Phase IV)

Generator Name	GTE Operations Support Incorporated	Manifest No.	0840-07-001
Profile No.	0840-07	HAZ Manifest No.:	002825515JJK

1-D043 requires treatment to the 40 CRF 268.48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of generation and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed. Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to 40 CFR 268.49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed. Write the appropriate letter which corresponds to the letter on the LDR form.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[2] UTS (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[2] UTS (mg/kg) unless noted
Acenaphthylene		3.4	2-Chloro-1,3-butadiene		0.28[1]
Acenapthene		3.4	Chlorodibromomethane		15
Acetone		160	Chloroethane		6.0
Acetonitrile		38[1]	bis(2-Chloroethoxy)methane		7.2
Acetophenone		9.7	bis(2-Chloroethyl)ether		6.0
2-Acetylaminofluorene		140	Chloroform		6.0
Acrolein		NA	bis(2-Chloroisopropyl)ether		7.2
Acylamide		23[1]	p-Chloro-m-cresol		14
Acrylonitrile		84	2-Chloroethyl vinyl ether		NA[1]
Aldicarb sulfone		0.28[1]	Chloromethane (Methyl chloride)		30
Aldrin		0.066	2-Chloronaphthalene		5.6
4-Aminobiphenyl	NA	NA	2-Chlorophenol		5.7
Aniline		14	3-Chloropropylene		30
Anthracene		3.4	Chrysene		3.4
Aramite		NA	o-Cresol		5.6
alpha-BHC		0.066	m-Cresol		5.6
beta-BHC		0.066	p-Cresol		5.6
delta-BHC		0.066	m-Cumenyl methylcarbamate		1.4[1]
[illegible]ma-BHC (Lindane)		0.066	Cyclohexanone		0.75 mg/l[1]
[illegible]an		1.4[1]	o,p'-DDD		0.087
Bendiocarb		1.4[1]	p,p'-DDD		0.087
Benomyl		1.4[1]	o,p'-DDE		0.087
Benzene		10	p,p'-DDE		0.087
Benz(a)anthracene		3.4	o,p'-DDT		0.087
Benzal chloride		6.0[1]	p,p'-DDT		0.087
Benzo(b)fluoranthene		6.8	Dibenz(a,h)anthracene		8.2
Benzo(k)fluoranthene		6.8	Dibenz(a,e)pyrene		NA
Benzo (g,h,i)perylene		1.8	1,2-Dibromo-3-chloropropane		15
Benzo(a)pyrene		3.4	1,2-Dibromomethane (Ethylene dibromide)		15
Bromodichloromethane		15	Dibromomethane		15
Bromomethane (Methyl Bromide)		15	m-Dichlorobenzene		6.0
4-Bromophenyl phenyl ether		15	o-Dichlorobenzene		6.0
n-Butyl alcohol		2.6	p-Dichlorobenzene		6.0
Butylate		1.4[1]	Dichlorodifluoromethane		7.2
Butyl benzyl phthalate		28	1,1-Dichloroethane		6.0
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)		2.5	1,2-Dichloroethane		6.0
Carbaryl		0.14[1]	1,1-Dichloroethylene		6.0
Carbenzadim		1.4[1]	trans-1,2-Dichloroethylene		30
Carbofuran		0.14[1]	2,4-Dichlorophenol		14
Carbofuran phenol		1.4[1]	2,6-Dichlorophenol		14
Carbon disulfide		4.8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid (2,4-D)		10
Carbon tetrachloride		6.0	1,2-Dichloropropane		18
Carbosulfan		1.4[1]	cis-1,3-Dichloropropylene		18
Chlordane (alpha and gamma isomers)		0.26	trans-1,3-Dichloropropylene		18
[illegible]loroaniline		16	Dieldrin		0.13
[illegible]orobenzene		6.0	Diethyl phthalate		28
Chlorobenzilate		NA	p-Dimethylaminoazobenzene		NA

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[3] UTS (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[3] UTS (mg/kg) unless noted
[illegible]imethyl phenol		14	Isosafrole		2.6
Dimethyl phthalate		28	Isobutyl alcohol		170
Di-n-butyl phthalate		28	Isodrin		0.066
1,4-Dinitrobenzene		2.3	Kepone		0.13
4,6-Dinitro-o-cresol		160	Methacrylonitrile		84
2,4-Dinitrophenol		160	Methanol	A1	0.75 mg/l[1]
2,4-Dinitrotoluene		140	Methapyrilene		1.5
2,6-Dinitrotoluene		28	Methiocarb		1.4[1]
Di-n-octyl phthalate		28	Methomyl		0.14[1]
Di-n-propylnitrosamine		14	Methoxychlor		0.18
1,4-Dioxane		170	3-Methylcholanthrene		15
Diphenylamine		13[1]	4,4'-Methylene bis(2-chloroaniline)		30
Diphenylnitrosamine		13[1]	Methylene chloride		30
1,2-Diphenylhydrazine		NA	Methyl ethyl ketone (2-Butanone)		36
Disulfoton		6.2	Methyl isobutyl ketone		33
Dithiocarbamates (total)		28[1]	Methyl methacrylate		160
Endosulfan I		0.066	Methyl methansulfonate		NA
Endosulfan II		0.13	Methyl parathion		4.6
Endosulfan sulfate		0.13	Metolcarb		1.4[1]
Endrin		0.13	Mexacarbate		1.4[1]
Endrin aldehyde		0.13	Molinate		1.4[1]
EPTC		1.4[1]	Naphthalene		5.6
Ethyl acetate		33	2-Naphthylamine		NA
Ethyl benzene		10	o-Nitroaniline		14[1]
Ethyl cyanide (Propanenitrile)		360	p-Nitroaniline		28
Ethyl ether		160	Nitrobenzene		14
Bis(2-Ethylhexyl)phthalate		28[2]	5-Nitro-o-toluidine		28
[illegible] methacrylate		160	o-Nitrophenol		13[1]
Ethylene oxide		NA	p-Nitrophenol		29
Famphur		15	N-Nitrosodiethylamine		28
Fluoranthene		3.4	N-Nitrosodimethylamine		2.3[1]
Fluorene		3.4	N-Nitroso-di-n-butylamine		17
Formetanate hydrochloride		1.4[1]	N-Nitrosomethylethylamine		2.3
Heptachlor		0.066	N-Nitrosomorpholine		2.3
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDDD)		0.0025	N-Nitrosopiperidine		35
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)		0.0025	N-Nitrosopyrrolidine		35
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)		0.0025	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		0.005
Heptachlor epoxide		0.066	1,2,3,4,6,7,8,9-Octachlorodebenzofuran (OCDF)		0.005
Hexachlorobenzene		10	Oxamyl		0.28[1]
Hexachlorobutadiene		5.6	Parathion		4.6
Hexachlorocyclopentadiene		2.4	Total PCBs (sum of all PCB isomers or all Aroclors)		10
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0.001	Pebulate		1.4[1]
HxCDFs (All Hexachlorodibenzofurans)		0.001	Pentachlorobenzene		10[1]
Hexachloroethane		30	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0.001
Hexachloropropylene		30[2]	PeCDFs(All Pentachlorodibenzofurans)		0.001
Indeno(1,2,3-c,d)pyrene		3.4	Pentachloroethane		6.0
Iodomethane		65	Pentachloronitrobenzene		4.8

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[3] UTS (mg/kg) unless noted	INORGANIC CONSTITUENTS	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW[3] UTS (mg/kg) unless noted
chloronitrobenzene		4.8	Antimony		1.15 mg/l TCLP
achlorophenol		7.4	Arsenic		5.0 mg/l TCLP
Phenacetin		16	Barium		21 mg/l TCLP
Phenanthrene		5.6	Beryllium		1.22 mg/l TCLP
Phenol		6.2	Cadmium		0.11 mg/l TCLP
Phorate		4.6	Chromium (Total)		0.60 mg/l TCLP
Phthalic acid		28[1]	Cyanides (Total)		590
Phthalic anhydride		28[1]	Cyanides (Amenable)		30[1]
Physostigmine		1.4[1]	Fluoride		NA[2]
Physostigmine salicylate		1.4[1]	Lead		0.75 mg/l TCLP
Promecarb		1.4[1]	Mercury (from Retort)		0.20 mg/l TCLP[1]
Pronamide		1.5	Mercury (All others)		0.025 mg/l TCLP
Propham		1.4[1]	Nickel		11 mg/l TCLP
Propoxur		1.4[1]	Selenium		5.7 mg/l TCLP
Prosulfocarb		1.4[1]	Silver		0.14 mg/l TCLP
Pyrene		8.2	Sulfide		NA[2]
Pyridine		16	Thallium		0.20 mg/l TCLP
Safrole		22	Vanadium		1.6 mg/l TCLP[2]
Silvex (2,4,5-TP)		7.9	Zinc		4.3 mg/l TCLP[1,2]
1,2,4,5-Tetrachlorobenzene		14			
TCDDs (All Tetrachlorodibenzo-p-dioxins)		0.001			
TCDFs (All Tetrachlorodibenzofurans)		0.001			
1,1,1,2-Tetrachloroethane		6.0			
1,1,2,2-Tetrachloroethane		6.0			
Tetrachloroethylene		6.0			
2,3,4,6-Tetrachlorophenol		7.4			
icarb		1.4[1]			
hanate-methyl		1.4[1]			
Toluene		10			
Toxaphene		2.6			
Triallate		1.4[1]			
Tribromomethane (Bromoform)		15			
1,2,4-Trichlorobenzene		19			
1,1,1-Trichloroethane		6.0			
1,1,2-Trichloroethane		6.0			
Trichloroethylene		6.0			
Trichloromonofluoromethane		30			
2,4,5-Trichlorophenol		7.4			
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)		7.9			
1,2,3-Trichloropropane		30			
1,1,2-Trichloro-1,2,2-trifluoroethane		30			
Triethylamine		1.5[1]			
Tris-(2,3-Dibromopropyl)phosphate		0.10[1]			
Vernolate		1.4[1]			
Vinyl chloride		6.0			
Xylenes – mixed isomers (sum of o-, m-, and p-xylene concentrations)		30			

These constituents are only applicable as underlying hazardous constituents. These constituents are not constituents that require treatment in F039 wastes.

Not an underlying hazardous constituent requiring treatment in a D001-D043 waste.

These treatment standards are the nonwastewater (NWW) standards. See 40 CFR 268.48.

Gondolas survey# id #		Capacity	weight Bag	Bag	Bag	Bag	Bag	Bag	Bag	Bag
truck	Shipment #	0								
	0840-07-001 Bag #		9240	9241	9242	9243	9244	9245	9246	
	Storage Loc.		280	280	270	250	240	280	280	
	11/8/2006	0	1880							

S[illegible] Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum# 6 9240 Storage Bin: N/A Gross Weight: 280 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		5/3/07				3-Aug-07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	N/A cpm	N/A cpm	8 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.002 mrem/hr Transport Index: 0 mrem/hr

	α cpm		α dpm/100cm2	β cpm	β dpm/100cm2
ALARA Limit	N/A			N/A	5000
Smear #					
1	1		<MDA	0	<MDA
2					
3					
4					
5					
6					

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: C. Barry Surveyor Signature:

Supervisor Approval

Number: 00141 Date: 10/23/06 Time: 1600

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum #2 9246 Storage Bin: N/A Gross Weight: 280 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		Model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date	5/1/07		8/3/07				3-Aug-07
	α	β	α	β	α	β	γ
Background	0 cpm	25 cpm	[illegible] cpm	[illegible] cpm	N/A cpm	N/A cpm	8 uR/hr
Efficiency	29 %	25 %	32 %	22 %	%	%	
MDA	25 dpm	130 dpm	[illegible] dpm	[illegible] dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.0002 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α 1dpm/100cm2	β cpm	β 1dpm/100cm2
ALARA Limit	N/A		N/A	1,000
Smear #				
1	0	<MDA	0	<MDA
2				
3				
4				
5				
6				

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: [illegible] Surveyor Signature: [illegible]

Supervisor Approval: [illegible]

Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum #5 9245 Storage Bin: N/A Gross Weight: 280 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		Model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		5/2/07				3-Aug-07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	[illegible] cpm	N/A cpm	N/A cpm	8 μR/hr
Efficiency	29 %	25 %	33 %	[illegible] %	%	%	
MDA	25 dpm	130 dpm	25 dpm	[illegible] dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.002 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100cm2	β cpm	β dpm/100cm2
ALARA Limit	N/A	[illegible]	N/A	5000
Smear #				
1	0	<MDA	22	<MDA
2				
3				
4				
5				
6				

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Left Side 5 - Top

Surveyor Name: C. Barry Surveyor Signature:

Supervisor Approval:

Ship[illegible]t Survey

Survey Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum# 1 9244 Storage Bin: N/A Gross Weight: 240 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		8/3/07				3-Aug-07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	N/A cpm	N/A cpm	8 μR/hr
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.002 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100cm2	β cpm	β dpm/100cm2
ALARA Limit	N/A	500	N/A	500
Smear #				
1	0	<MDA	4	<MDA
2				
3			N/A	
4				
5				
6				

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: [illegible] Surveyor Signature: [illegible]

Supervisor Approval

Survey Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum # 7 9243 Storage Bin: N/A Gross Weight: 250 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		8/3/07				3-Aug-07
	α	β	α	β	α	β	γ
Background	0 cpm	25 cpm	0 cpm	[illegible] cpm	N/A cpm	N/A cpm	8 μR/hr
Efficiency	29 %	25 %	22 %	[illegible] %	%	%	
MDA	25 dpm	130 dpm	95 dpm	[illegible] dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.002 mrem/hr Radiation Index: 0 mrem/hr

	α cpm	α dpm/100cm2	β cpm	β dpm/100cm2
ALARA Limit	N/A		N/A	300
Smear #				
1	0	<MDA	0	<MDA
2				
3				
4				
5				
6				

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: [illegible] Surveyor Signature: [illegible]

Supervisor Approval

Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum #4 9242 Storage Bin: N/A Gross Weight: 270 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		5/3/07				3-Aug-07
	α	β	α	β	α	β	
Background	0 cpm	25 cpm	0 cpm	25 cpm	N/A	N/A cpm	8 uR/h
Efficiency	29 %	25 %	29 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.0002 mrem/hr Transport Index: 0 mrem/hr

	α cpm	β cpm	α cpm	β cpm	β dpm/100 cm2
ALARA Limit	N/A		N/A		5000
Smear #					
1	0		<MDA	0	<MDA
2					
3					
4					
5					
6					

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: [illegible] Surveyor Signature: [illegible]

Supervisor Approval

y Number: 00141 Date: 10/23/06 Time: 16:00

Waste Container Type: Super Sack Intermodal Other: Drum

Waste Container ID #: Drum #3 9241 Storage Bin: N/A Gross Weight: 280 lbs

	Ludlum 3030		Ludlum 3030		Ludlum 3030		model 19
Serial #	191247		196165		N/A		196117
Probe #	N/A		N/A				N/A
Calibration Due Date:	5/1/07		8/3/07				3-Aug-07
	α	β	α	β	α	β	γ
Background	0 cpm	25 cpm	0 cpm	[illegible] cpm	N/A cpm	N/A cpm	8 μR/hr
Efficiency	29 %	25 %	22 %	25 %	%	%	
MDA	25 dpm	130 dpm	25 dpm	130 dpm	dpm	dpm	

Maximum Contact Dose Rate: 0.0002 mrem/hr Transport Index: 0 mrem/hr

	α cpm	α dpm/100cm2	β cpm	β dpm/100cm2
ALARA Limit	N/A		N/A	
Smear #				
1	0	<MDA	3	<MDA
2				
3				
4				
5				
6				

Smear Locations: 1 - Bottom 2 - Front 3 - Right Side 4 - Back 5 - Left Side 6 - Top

Surveyor Name: [illegible] Surveyor Signature: [illegible]

Supervisor Approval

BAG#

Container # 9240

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	5.6282E-05	1.5211E-06	1.5211E-09	grams	kg
grams		spec activity	pCi/g				2.1127E-11	2.1127E-14
24062		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
53		2.6818E-01	2.6818E-01	2.3876E-04	6.4530E-06	6.4530E-09	grams	kg
grams		spec activity	Half life				1.3730E-07	1.3730E-10
24062		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		5.8501E-02	5.8501E-02	5.2083E-05	1.4077E-06	1.4077E-09	grams	kg
grams		spec activity	Half life				2.7601E-14	2.7601E-17
24062		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		2.4437E-01	1.7741E-01	1.5795E-04	4.2689E-06	4.2689E-09	grams	kg
grams		spec activity	Half life				4.2689E-09	4.2689E-12
24062		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	7.4802E-01	6.6596E-04	1.7999E-05	1.7999E-08	grams	kg
grams		spec activity	Half life				6.6663E-11	6.6663E-14
24062		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		6.3217E-02	6.3217E-02	5.6282E-05	1.5211E-06	1.5211E-09	grams	kg
grams		spec activity	Half life				4.9069E-14	4.9069E-17
24062		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		4.8662E-01	8.7883E-01	7.8242E-04	2.1146E-05	2.1146E-08	grams	kg
grams		spec activity	Half life				2.5788E-11	2.5788E-14
24062		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	3.9130E-01	3.4837E-04	9.4154E-06	9.4154E-09	grams	kg
grams		spec activity	Half life				4.4835E-07	4.4835E-10
24062		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	7.4802E-01	6.6596E-04	1.7999E-05	1.7999E-08	grams	kg
grams		spec activity	Half life				1.6363E-01	1.6363E-04
24062		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		1.2900E+01	1.1455E+01	1.0199E-02	2.7564E-04	2.7564E-07	grams	kg
grams		spec activity	Half life				4.4458E-05	4.4458E-08
24062		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		7.5960E-01	9.7260E-01	8.6590E-04	2.3403E-05	2.3403E-08	grams	kg
grams		spec activity	Half life				1.0638E-02	1.0638E-05
24062		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
53		1.2900E+01	1.7409E+01	1.5499E-02	4.1890E-04	4.1890E-07	grams	kg
grams		spec activity	Half life				1.2321E+00	1.2321E-03
24062		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
53		2.9326E+01	3.3170E+01	2.9588E-02	7.9967E-04	7.9967E-07	grams	kg
weight-lbs			pCi/g	541 will be < than the 540 (MDA not added)			1.0638E-02	1.3957E-03
1.39								

data for NORM

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.6365E-02	4.4230E-04	4.4230E-07		kg
		spec activity						6.2296E-04
		7.1000E-07						

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	2.9588E-02	7.9967E-04	7.9967E-07		kg total
								7.8663E-04

Container # BAG# 9246

Shipping Check Sheet (For Form 540)

weight(lb)	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams			pCi/g				2.1525E-11	2.1525E-14
24516		7.2000E+01	Half life					
weight(lb)	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
54		2.6818E-01	2.6818E-01	2.4327E-04	6.5747E-06	6.5747E-09	grams	kg
grams			Half life				1.3989E-07	1.3989E-10
24516		4.7000E-02	32.76 yrs					
weight(lb)	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.8501E-02	5.8501E-02	5.3066E-05	1.4342E-06	1.4342E-09	grams	kg
grams			Half life				2.8122E-14	2.8122E-17
24516		5.1000E+04	11.434 days					
weight(lb)	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		2.4437E-01	1.7741E-01	1.6093E-04	4.3495E-06	4.3495E-09	grams	kg
grams			Half life				4.3495E-09	4.3495E-12
24516		1.0000E+00	1.6 Thousand yrs					
weight(lb)	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams			Half life				6.7920E-11	6.7920E-14
24516		2.7000E+02	5.75 yrs					
weight(lb)	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams			Half life				4.9994E-14	4.9994E-17
24516		3.1000E+04	18.718 days					
weight(lb)	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		4.8662E-01	8.7883E-01	7.9718E-04	2.1545E-05	2.1545E-08	grams	kg
grams			Half life				2.6275E-11	2.6275E-14
24516		8.2000E+02	1.913 yrs					
weight(lb)	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	3.9130E-01	3.5494E-04	9.5930E-06	9.5930E-09	grams	kg
grams			Half life				4.5681E-07	4.5681E-10
24516		2.1000E-02	77 Thousand yrs					
weight(lb)	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams			Half life				1.6671E-01	1.6671E-04
24516		1.1000E-07	1.4+4 Million yrs					
weight(lb)	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.1455E+01	1.0391E-02	2.8084E-04	2.8084E-07	grams	kg
grams			Half life				4.5296E-05	4.5296E-08
24516		6.2000E-03	244.5 Thousand yrs					
weight(lb)	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		7.5960E-01	9.7260E-01	8.8224E-04	2.3844E-05	2.3844E-08	grams	kg
grams			Half life				1.0838E-02	1.0838E-05
24516		2.2000E-06	703.8 Million yrs					
weight(lb)	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.7409E+01	1.5792E-02	4.2680E-04	4.2680E-07	grams	kg
grams			Half life				1.2553E+00	1.2553E-03
24516		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight(lb)		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
54		2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			1.0838E-02	1.4221E-03
1.42			data for NORM					
	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.6674E-02	4.5065E-04	4.5065E-07		kg
								6.3471E-04
		7.1000E-07						

U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07		kg total
							8.0147E-04

BAG#

Container # 9245

Shipping Check Sheet (For Form 540)

	Ac-227							
		6.3217E-02	6.3217E-02	5.6282E-05	1.5211E-06	1.5211E-09	SNM	source
							grams	kg
grams			pCi/g				2.1127E-11	2.1127E-14
24062		7.2000E+01	Half life					
	Pa-231		21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
53		2.6818E-01	2.6818E-01	2.3876E-04	6.4530E-06	6.4530E-09	grams	kg
grams			Half life				1.3730E-07	1.3730E-10
24062		4.7000E-02	32.76 yrs					
	Ra-223			activity mBq	activity mCi	activity Ci	SNM	source
53		5.8501E-02	5.8501E-02	5.2083E-05	1.4077E-06	1.4077E-09	grams	kg
grams			Half life				2.7601E-14	2.7601E-17
24062		5.1000E+04	11.434 days					
	Ra-226			activity mBq	activity mCi	activity Ci	SNM	source
53		2.4437E-01	1.7741E-01	1.5795E-04	4.2689E-06	4.2689E-09	grams	kg
grams			Half life				4.2689E-09	4.2689E-12
24062		1.0000E+00	1.6 Thousand yrs					
	Ra-228			activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	7.4802E-01	6.6596E-04	1.7999E-05	1.7999E-08	grams	kg
grams			Half life				6.6663E-11	6.6663E-14
24062		2.7000E+02	5.75 yrs					
	Th-227			activity mBq	activity mCi	activity Ci	SNM	source
53		6.3217E-02	6.3217E-02	5.6282E-05	1.5211E-06	1.5211E-09	grams	kg
grams			Half life				4.9069E-14	4.9069E-17
24062		3.1000E+04	18.718 days					
	Th-228			activity mBq	activity mCi	activity Ci	SNM	source
53		4.8662E-01	8.7883E-01	7.8242E-04	2.1146E-05	2.1146E-08	grams	kg
grams			Half life				2.5788E-11	2.5788E-14
24062		8.2000E+02	1.913 yrs					
	Th-230			activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	3.9130E-01	3.4837E-04	9.4154E-06	9.4154E-09	grams	kg
grams			Half life				4.4835E-07	4.4835E-10
24062		2.1000E-02	77 Thousand yrs					
	Th-232			activity mBq	activity mCi	activity Ci	SNM	source
53		5.2736E-01	7.4802E-01	6.6596E-04	1.7999E-05	1.7999E-08	grams	kg
grams			Half life				1.6363E-01	1.6363E-04
24062		1.1000E-07	1.4+4 Million yrs					
	U-234			activity mBq	activity mCi	activity Ci	SNM	source
53		1.2900E+01	1.1455E+01	1.0199E-02	2.7564E-04	2.7564E-07	grams	kg
grams			Half life				4.4458E-05	4.4458E-08
24062		6.2000E-03	244.5 Thousand yrs					
	U-235			activity mBq	activity mCi	activity Ci	SNM	source
53		7.5960E-01	9.7260E-01	8.6590E-04	2.3403E-05	2.3403E-08	grams	kg
grams			Half life				1.0638E-02	1.0638E-05
24062		2.2000E-06	703.8 Million yrs					
	U-238			activity mBq	activity mCi	activity Ci	SNM	source
53		1.2900E+01	1.7409E+01	1.5499E-02	4.1890E-04	4.1890E-07	grams	kg
grams			Half life				1.2321E+00	1.2321E-03
24062		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

			corrected	activity mBq	activity mCi	activity Ci	SNM	source
53		2.9326E+01	3.3170E+01	2.9588E-02	7.9967E-04	7.9967E-07	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			1.0638E-02	1.3957E-03
1.39								

data for NORM

	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.6365E-02	4.4230E-04	4.4230E-07		kg
								6.2296E-04
		7.1000E-07						

	U-nat		corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	2.9588E-02	7.9967E-04	7.9967E-07		kg total
								7.8663E-04

BAG#

Container # 9244

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	4.8848E-05	1.3202E-06	1.3202E-09	grams	kg
grams		spec activity	pCi/g				1.8336E-11	1.8336E-14
20884		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
46		2.6818E-01	2.6818E-01	2.0723E-04	5.6007E-06	5.6007E-09	grams	kg
grams		spec activity	Half life				1.1916E-07	1.1916E-10
20884		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		5.8501E-02	5.8501E-02	4.5204E-05	1.2217E-06	1.2217E-09	grams	kg
grams		spec activity	Half life				2.3956E-14	2.3956E-17
20884		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		2.4437E-01	1.7741E-01	1.3709E-04	3.7051E-06	3.7051E-09	grams	kg
grams		spec activity	Half life				3.7051E-09	3.7051E-12
20884		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		5.2736E-01	7.4802E-01	5.7800E-04	1.5622E-05	1.5622E-08	grams	kg
grams		spec activity	Half life				5.7858E-11	5.7858E-14
20884		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		6.3217E-02	6.3217E-02	4.8848E-05	1.3202E-06	1.3202E-09	grams	kg
grams		spec activity	Half life				4.2588E-14	4.2588E-17
20884		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		4.8662E-01	8.7883E-01	6.7908E-04	1.8353E-05	1.8353E-08	grams	kg
grams		spec activity	Half life				2.2382E-11	2.2382E-14
20884		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		5.2736E-01	3.9130E-01	3.0236E-04	8.1718E-06	8.1718E-09	grams	kg
grams		spec activity	Half life				3.8914E-07	3.8914E-10
20884		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		5.2736E-01	7.4802E-01	5.7800E-04	1.5622E-05	1.5622E-08	grams	kg
grams		spec activity	Half life				1.4202E-01	1.4202E-04
20884		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		1.2900E+01	1.1455E+01	8.8516E-03	2.3923E-04	2.3923E-07	grams	kg
grams		spec activity	Half life				3.8586E-05	3.8586E-08
20884		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		7.5960E-01	9.7260E-01	7.5154E-04	2.0312E-05	2.0312E-08	grams	kg
grams		spec activity	Half life				9.2327E-03	9.2327E-06
20884		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
46		1.2900E+01	1.7409E+01	1.3452E-02	3.6357E-04	3.6357E-07	grams	kg
grams		spec activity	Half life				1.0693E+00	1.0693E-03
20884		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
46		2.9326E+01	3.3170E+01	2.5680E-02	6.9405E-04	6.9405E-07	grams	kg
volume-m3			pCi/g	541 will be < than the 540 (MDA not added)			9.2327E-03	1.2114E-03
1.2				data for NORM				
	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.4204E-02	3.8388E-04	3.8388E-07		kg
		spec activity						5.4068E-04
		7.1000E-07						

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	2.5680E-02	6.9405E-04	6.9405E-07		kg total
							6.8274E-04

Container # BAG# 9243

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	5.2034E-05	1.4063E-06	1.4063E-09	grams	kg
grams		spec activity	pCi/g				1.9532E-11	1.9532E-14
22246		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
49		2.6818E-01	2.6818E-01	2.2074E-04	5.9660E-06	5.9660E-09	grams	kg
grams		spec activity	Half life				1.2694E-07	1.2694E-10
22246		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		5.8501E-02	5.8501E-02	4.8152E-05	1.3014E-06	1.3014E-09	grams	kg
grams		spec activity	Half life				2.5518E-14	2.5518E-17
22246		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		2.4437E-01	1.7741E-01	1.4603E-04	3.9467E-06	3.9467E-09	grams	kg
grams		spec activity	Half life				3.9467E-09	3.9467E-12
22246		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		5.2736E-01	7.4802E-01	6.1570E-04	1.6640E-05	1.6640E-08	grams	kg
grams		spec activity	Half life				6.1631E-11	6.1631E-14
22246		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		6.3217E-02	6.3217E-02	5.2034E-05	1.4063E-06	1.4063E-09	grams	kg
grams		spec activity	Half life				4.5365E-14	4.5365E-17
22246		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		4.8662E-01	8.7883E-01	7.2337E-04	1.9550E-05	1.9550E-08	grams	kg
grams		spec activity	Half life				2.3842E-11	2.3842E-14
22246		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		5.2736E-01	3.9130E-01	3.2208E-04	8.7048E-06	8.7048E-09	grams	kg
grams		spec activity	Half life				4.1451E-07	4.1451E-10
22246		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		5.2736E-01	7.4802E-01	6.1570E-04	1.6640E-05	1.6640E-08	grams	kg
grams		spec activity	Half life				1.5128E-01	1.5128E-04
22246		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		1.2900E+01	1.1455E+01	9.4289E-03	2.5483E-04	2.5483E-07	grams	kg
grams		spec activity	Half life				4.1102E-05	4.1102E-08
22246		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		7.5960E-01	9.7260E-01	8.0055E-04	2.1637E-05	2.1637E-08	grams	kg
grams		spec activity	Half life				9.8348E-03	9.8348E-06
22246		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
49		1.2900E+01	1.7409E+01	1.4329E-02	3.8728E-04	3.8728E-07	grams	kg
grams		spec activity	Half life				1.1391E+00	1.1391E-03
22246		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
49		2.9326E+01	3.3170E+01	2.7355E-02	7.3932E-04	7.3932E-07	grams	kg
			pCi/g	541 will be < than the 540 (MDA not added)			9.8348E-03	1.2904E-03
1.28				data for NORM				
	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.5130E-02	4.0892E-04	4.0892E-07		kg
		spec activity						5.7594E-04
		7.1000E-07						

U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
	2.9326E+01	3.3170E+01	2.7355E-02	7.3932E-04	7.3932E-07		kg total
							7.2726E-04

Container # BAG# 9242

Shipping Check Sheet (For Form 540)

weight/lbs	Ac-227	activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams		specific activity	pCi/g				2.1525E-11	2.1525E-14
24516		7.2000E+01	Half life					
weight/lbs	Pa-231	activity pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
54		2.6818E-01	2.6818E-01	2.4327E-04	6.5747E-06	6.5747E-09	grams	kg
grams		specific activity	Half life				1.3989E-07	1.3989E-10
24516		4.7000E-02	32.76 yrs					
weight/lbs	Ra-223	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.8501E-02	5.8501E-02	5.3066E-05	1.4342E-06	1.4342E-09	grams	kg
grams		specific activity	Half life				2.8122E-14	2.8122E-17
24516		5.1000E+04	11.434 days					
weight/lbs	Ra-226	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		2.4437E-01	1.7741E-01	1.6093E-04	4.3495E-06	4.3495E-09	grams	kg
grams		specific activity	Half life				4.3495E-09	4.3495E-12
24516		1.0000E+00	1.6 Thousand yrs					
weight/lbs	Ra-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams		specific activity	Half life				6.7920E-11	6.7920E-14
24516		2.7000E+02	5.75 yrs					
weight/lbs	Th-227	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams		specific activity	Half life				4.9994E-14	4.9994E-17
24516		3.1000E+04	18.718 days					
weight/lbs	Th-228	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		4.8662E-01	8.7883E-01	7.9718E-04	2.1545E-05	2.1545E-08	grams	kg
grams		specific activity	Half life				2.6275E-11	2.6275E-14
24516		8.2000E+02	1.913 yrs					
weight/lbs	Th-230	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	3.9130E-01	3.5494E-04	9.5930E-06	9.5930E-09	grams	kg
grams		specific activity	Half life				4.5681E-07	4.5681E-10
24516		2.1000E-02	77 Thousand yrs					
weight/lbs	Th-232	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams		specific activity	Half life				1.6671E-01	1.6671E-04
24516		1.1000E-07	1.4+4 Million yrs					
weight/lbs	U-234	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.1455E+01	1.0391E-02	2.8084E-04	2.8084E-07	grams	kg
grams		specific activity	Half life				4.5296E-05	4.5296E-08
24516		6.2000E-03	244.5 Thousand yrs					
weight/lbs	U-235	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		7.5960E-01	9.7260E-01	8.8224E-04	2.3844E-05	2.3844E-08	grams	kg
grams		specific activity	Half life				1.0838E-02	1.0838E-05
24516		2.2000E-06	703.8 Million yrs					
weight/lbs	U-238	activity pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.7409E+01	1.5792E-02	4.2680E-04	4.2680E-07	grams	kg
grams		specific activity	Half life				1.2553E+00	1.2553E-03
24516		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight/lbs		activity pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
54		2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07	grams	kg
Volume/ft³			pCi/g	541 will be < than the 540 (MDA not added)			1.0838E-02	1.4221E-03
1.42								

data for NORM

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.6674E-02	4.5065E-04	4.5065E-07		kg
		specific activity						6.3471E-04
		7.1000E-07						

	U-nat	activity pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07		kg total
								8.0147E-04

BAG#
Container # 9241

Shipping Check Sheet (For Form 540)

weight-lbs	Ac-227	activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams		spec activity	pCi/g				2.1525E-11	2.1525E-14
24516		7.2000E+01	Half life					
weight-lbs	Pa-231	activity-pCi/g	21.773 yrs	activity mBq	activity mCi	activity Ci	SNM	source
54		2.6818E-01	2.6818E-01	2.4327E-04	6.5747E-06	6.5747E-09	grams	kg
grams		spec activity	Half life				1.3989E-07	1.3989E-10
24516		4.7000E-02	32.76 yrs					
weight-lbs	Ra-223	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.8501E-02	5.8501E-02	5.3066E-05	1.4342E-06	1.4342E-09	grams	kg
grams		spec activity	Half life				2.8122E-14	2.8122E-17
24516		5.1000E+04	11.434 days					
weight-lbs	Ra-226	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		2.4437E-01	1.7741E-01	1.6093E-04	4.3495E-06	4.3495E-09	grams	kg
grams		spec activity	Half life				4.3495E-09	4.3495E-12
24516		1.0000E+00	1.6 Thousand yrs					
weight-lbs	Ra-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams		spec activity	Half life				6.7920E-11	6.7920E-14
24516		2.7000E+02	5.75 yrs					
weight-lbs	Th-227	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		6.3217E-02	6.3217E-02	5.7344E-05	1.5498E-06	1.5498E-09	grams	kg
grams		spec activity	Half life				4.9994E-14	4.9994E-17
24516		3.1000E+04	18.718 days					
weight-lbs	Th-228	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		4.8662E-01	8.7883E-01	7.9718E-04	2.1545E-05	2.1545E-08	grams	kg
grams		spec activity	Half life				2.6275E-11	2.6275E-14
24516		8.2000E+02	1.913 yrs					
weight-lbs	Th-230	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	3.9130E-01	3.5494E-04	9.5930E-06	9.5930E-09	grams	kg
grams		spec activity	Half life				4.5681E-07	4.5681E-10
24516		2.1000E-02	77 Thousand yrs					
weight-lbs	Th-232	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		5.2736E-01	7.4802E-01	6.7852E-04	1.8338E-05	1.8338E-08	grams	kg
grams		spec activity	Half life				1.6671E-01	1.6671E-04
24516		1.1000E-07	1.4+4 Million yrs					
weight-lbs	U-234	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.1455E+01	1.0391E-02	2.8084E-04	2.8084E-07	grams	kg
grams		spec activity	Half life				4.5296E-05	4.5296E-08
24516		6.2000E-03	244.5 Thousand yrs					
weight-lbs	U-235	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		7.5960E-01	9.7260E-01	8.8224E-04	2.3844E-05	2.3844E-08	grams	kg
grams		spec activity	Half life				1.0838E-02	1.0838E-05
24516		2.2000E-06	703.8 Million yrs					
weight-lbs	U-238	activity-pCi/g		activity mBq	activity mCi	activity Ci	SNM	source
54		1.2900E+01	1.7409E+01	1.5792E-02	4.2680E-04	4.2680E-07	grams	kg
grams		spec activity	Half life				1.2553E+00	1.2553E-03
24516		3.4000E-07	4468 Million yrs					

Totals for all flag 1 data

weight-lbs		activity-pCi/g	corrected	activity mBq	activity mCi	activity Ci	SNM	source
54		2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07	grams	kg
volume-ft3			pCi/g	541 will be < than the 540 (MDA not added)			1.0838E-02	1.4221E-03
1.41								

data for NORM

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		1.3660E+01	1.8382E+01	1.6674E-02	4.5065E-04	4.5065E-07		kg
		spec activity						6.3471E-04
		7.1000E-07						

	U-nat	activity-pCi/g	corrected pCi/g	activity mBq	activity mCi	activity Ci		source
		2.9326E+01	3.3170E+01	3.0146E-02	8.1476E-04	8.1476E-07		kg total
								8.0147E-04

ENERGYSOLUTIONS

SHIPPING CHECKLIST

The following checklist has been developed to assist generators in shipping radioactive waste to EnergySolutions. This information is also contained in the "Waste Acceptance Guidelines" document available on EnergySolutions' website at www.energysolutions.com.

Scheduling: Must be established at least 5 working days in advance of requested arrival date

- [x] A "Notice to Transport" has been issued by EnergySolutions for the Waste Profile.
- [x] **Submitted "5 Working Day Advanced Shipment Notification" form to request shipping schedule. Email form to scheduling@energysolutions.com or fax to (435) 884-3549.**
- [x] Shipping schedule has been confirmed by EnergySolutions.
  EnergySolutions' Shipping & Receiving Scheduler: (435) 884-0155.

Advanced Manifesting: Must be submitted prior to releasing each shipment/conveyance

- [x] Manifested information is consistent with the approved Waste Profile.
  Verify that all manifested radionuclides are listed in the approved Waste Profile and that manifested concentrations do not exceed the approved ranges.
- [x] Verified consignee information on manifests (see below).

Consignee:	EnergySolutions, LLC Clive Disposal Site Interstate 80, Exit 49 Clive, UT 84029	Contact: Phone:	Transportation Compliance (435) 884-0155

- [x] Verified Shipment ID/Manifest Number (XXXX-YY-ZZZZ)
  XXXX is the generator number, YY is the waste stream number, and ZZZZ is the shipment number (starting with 0001 for the first shipment/conveyance and incrementing by one for each additional shipment/conveyance). If a Hazardous Waste Manifest is submitted, include the Shipment ID Number in Block 15.
- [x] Verified valid Utah Site Access Permit number in Block 5 on Form 540. Generators must apply for the permit with the Utah Division of Radiation Control (DRC). The Shipper Name and Facility must be consistent with the Utah Site Access Permit number.
- [x] Verified that Block 9 of Form 540 specifies EnergySolutions' "Treatment Facility" or "Bulk Waste Facility". Enter "Bulk Waste Facility" for LLRW, 11e.(2) Byproduct Material, and Mixed Waste shipped for direct disposal or enter "Treatment Facility" for waste streams requiring treatment by EnergySolutions prior to disposal.
- [x] Submitted manifests to EnergySolutions **at least three working days** prior to the shipment arrival date. If possible, please export the manifests and send electronically via email to manifest@energysolutions.com. Otherwise, fax manifests to "Shipping and Receiving – Manifest" at (801) 413-5643. Include the isotope report and if applicable, LDR Notification/Certification forms, Hazardous Waste Manifest, and SNM Exemption Certification form.

Shipment Paperwork and Inspection

- [x] The original shipping paperwork/manifests accompany each shipment (conveyance). Include the isotope report and if applicable, LDR Notification/Certification forms and Hazardous Waste Manifest.
- [x] If applicable, **a completed and signed copy of the SNM Exemption Certification form and DOE/NRC form 741** has been included with the shipping papers.
- [x] If applicable, the Uniform Hazardous Waste Manifest lists all hazardous waste codes associated with the shipment.
- [x] Containers have been inspected and comply with DOT packaging requirements. Waste must be packaged in a strong, tight container at a minimum.
- Yes [ ] **Containers do not contain unauthorized free standing liquids.** YES needs Treated By Energy Solutions
- [x] If applicable, containers are labeled **"Class A Unstable" or "Class AU"**. Refer to Block 16 of NRC Form 541.

ENERGYSOLUTIONS

EC-1800
Revision 3

NOTICE TO TRANSPORT

EnergySolutions has reviewed the Radioactive Waste Profile Record and supporting documentation for the waste stream identified below. Based on our review of the information and certifications provided, EnergySolutions hereby issues notice that the following waste may be scheduled for transport and delivery to the EnergySolutions Disposal Facility.

GTE Operations Support Incorporated
Generator Name

0205001352
Utah Site Access Permit Number

0840-07
Waste Stream ID

Waste Profile Rev# 0 Date:10/3/2006

Liquid Methanol and Soil
Waste Stream Name

Waste Type: NORM ☐ LLRW ☐ RCRA Treated LLRW ☐ 11e.(2) ☐
MW ☐ Treated MW ☐ MW Needing Treatment ☒
PCB/Rad ☐ PCB/MW ☐ PCB/MW Needing Treatment ☐

Waste Form: Solid ☐ Liquid ☒

Waste will require treatment or solidification at EnergySolutions' Treatment Facility: ☒ Yes ☐ No
If yes, indicate "Treatment Facility" in Block 9 of the Uniform LLRW Manifest Form 540.
If no, indicate "Bulk Waste Facility" in Block 9 of the Uniform LLRW Manifest Form 540.

Disposal Cell Location (Bulk Waste Facility): ☐ Class A LLRW ☒ Mixed Waste ☐ 11e.(2)

Signature

11/30/2006
Date

NOTICE: Transport and delivery of the material are to be done in accordance with a signed Disposal Agreement, applicable federal regulations, and EnergySolutions' Radioactive Material License and applicable permits. For LLRW and Mixed LLRW, generators must classify the waste in accordance with Utah Administrative Code R313-15-1008. The waste must also meet the ALARA Criteria specified in the Bulk Waste Disposal and Treatment Facilities Waste Acceptance Criteria, as amended unless otherwise approved in writing by EnergySolutions. Upon arrival at the facility, the shipment will be made subject to incoming-shipment procedures and may be accepted or rejected by EnergySolutions for management at the facility based on the results of these inspections. EnergySolutions will accept conforming waste shipped by the generator in accordance with applicable licenses, permits, and a waste disposal agreement. To generators of mixed waste designated above (radioactive/hazardous), notice is hereby provided that EnergySolutions possesses a RCRA permit for the treatment, storage and disposal of mixed waste. Hazardous waste manifests and LDR notices and certifications must accompany mixed waste shipments.

Note: Envirocare of Utah is now EnergySolutions.

Attachment 5.10
TRANSPORT VEHICLE RELEASE CHECKLIST

Shipment Number- Q840-07-001

Truck Number- 38

Trailer Number- Q14235

A qualified MHF-LS shipping technician shall verify that each item listed is satisfactory and then place a Check Mark in the corresponding box.

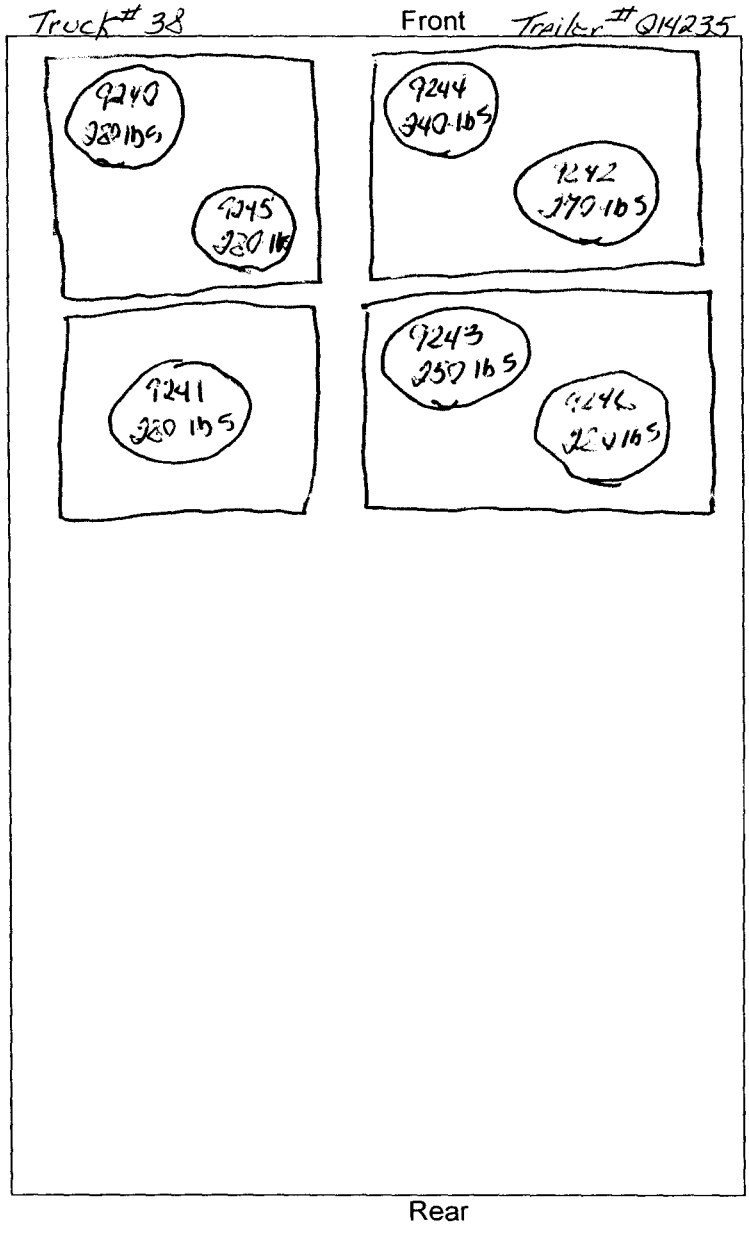
1. Driver possesses a valid driver's license with a HAZMAT endorsement ☑ JG
2. Driver possesses a valid copy of a "Research and Special Programs Administration" U.S. DOT Hazmat Registration Certificate ☑ JG
3. If manifested on a Hazardous Waste Manifest, ensure the carrier possesses a current EPA ID # ☑ JG
4. Lamps are operable ☑ JG
   - Headlights and Brights
   - Warning Lights and Flashers
   - Brake Lights
5. Coupling devices are intact ☑ JG
6. Tires are sufficient ☑ JG
   - No fabric is exposed through tread or sidewall
   - Front wheel tires must have tread pattern to a depth of ≥1/8 inch
   - Other tires must have tread pattern to a depth of ≥1/16 inch
   - Re-treaded tires are not authorized
7. Horn is operable ☑ JG
8. Windshield wipers are operable ☑ JG
9. Rear-vision mirrors are adequate (1 on each side) ☑ JG
10. Emergency equipment is on-hand and accessible ☑ JG
    - Fire extinguisher
    - Warning devices- bi-directional emergency reflectors, triangles (3), or liquid burning flares
11. General vehicle integrity is satisfactory ☑ JG
    - Frame appears undamaged
    - Flooring is sufficient to support load
    - If a closed transport vehicle, vehicle is closed
    - Vehicle is otherwise in unimpaired physical condition
12. Vehicle truck and trailer have current DOT inspection stickers on both components (Good for 1 year from date performed) ☑ JG
13. Vehicle is properly placarded (Exclusive Use LSA, Yellow III and HRCQ only) ☑ JG
14. Shoring, strapping, blocking and bracing is adequate to prevent shifting of lading ☑ JG

MHF-LS Qualified Technician Signature [signature]
Shipment Date 12-4-06

Attachment 5.9
LOADING DIAGRAM

A qualified MHF-LS shipper shall complete the following diagram by writing the package number and corresponding weight at the approximate position in which it is placed. The space to the left of the diagram may be used for additional or explanatory information as necessary.

Shipment Number- 0840-07-001



MHF-LS Qualified Technician
Signature _____
Shipment Date 12-4-06

FORM 540 — EnergySolutions, LLC

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
SHIPPING PAPER

1 EMERGENCY TELEPHONE NUMBER (Include Area Code): 1-800-424-9300

ORGANIZATION: Chemtrec

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

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 7

4 DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? ☑ YES ☐ NO
If "Yes" provide Manifest Number ==> 002825616JJK

5 SHIPPER -- NAME AND FACILITY
GTE Operations Support Incorporated
140 Cantiague Rock Rd
Hicksville, NY 11801

Utah Generator Site Access Permit No: 020 506 1362
SHIPMENT NUMBER: 0840 07-001

CONTACT: Jean Agostinelli

SHIPPER I D NUMBER: 0840-07 001
☐ COLLECTOR
☐ PROCESSOR
☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 908 558-3686

6 CARRIER -- Name and Address
Priority Transport Services, Inc
391 Anthony Street
Schenectady, NY 12308

EPA I D NUMBER: NYR000104976

SHIPPING DATE: 12/04/2006

CONTACT: Dispatch — Truck# 38 Trailer# Q14235

TELEPHONE (Include Area Code): 800-235-8069

SIGNATURE — Authorized carrier acknowledging waste receipt

DATE: 12-4-06

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): 0840-07-001

9 CONSIGNEE - Name and Facility
Energy Solutions
Clive Utah (Treatment Facility)
Interstate 80 Exit 49
Clive, UT 84029
M09964

CONTACT: Transportation Compliance

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

SIGNATURE — Authorized consignee acknowledging waste receipt

DATE: 12/08/2006

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

AUTHORIZED SIGNATURE: [signature] TITLE: Shipping Mgr DATE: 12-4-06

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
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	2 9588E-02	7.9967E-04	NA	280 LBS, 7 5 FT3	9240
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	3.0146E-02	8 1476E-04	NA	280 LBS; 7.5 FT3	9241
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227 Pa-231 Ra-223 Ra-226 Ra-228 Th-227 Th-228 Th-230 Th-232 U-234 U-Nat	3.0146E-02	8.1476E-04	NA	270 LBS, 7.5 FT3	9242

FOR CONSIGNEE USE ONLY

- ___ Record Waste Description Inadequate
- ___ Contamination or Leakage Detected
- ___ Unexpected Exposure Rates Detected
- ___ Labels, Markings, etc Inadequate
- ___ Container Integrity Inadequate
- ___ Other
- X 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) 0840-07-001

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, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.7355E-02	7 3932E-04	NA	250 LBS; 7 5 FT3	9243
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.5680E-02	6.9405E-04	NA	240 LBS; 7 5 FT3	9244
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	2.9588E-02	7 9967E-04	NA	280 LBS; 7 5 FT3	9245
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						
Waste, Methanol, 3, UN1230, PG II (Contains Radionuclides, DOT NON Regulated)	Flam LQ	NA	liquid OXIDES	Ac-227	Pa-231	Ra-223	Ra-226	3 0146E-02	8 1476E-04	NA	280 LBS, 7 5 FT3	9246
				Ra-228	Th-227	Th-228	Th-230					
				Th-232	U-234	U-Nat						

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
7	m3	0 2693	kg	322 0506	NP	NP	NP	NP
	ft3	9 5100	ton	0 3550				

ACTIVITY	ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)	
MBq	2 0265E-01	NP	NP	NP	NP	(kg)	5 3877E-03
mCi	5 4770E-03	NP	NP	NP	NP	(tons)	5 9389E-06

2 MANIFEST NUMBER 0840-07-001

3 PAGE 1 OF 4 PAGE(S)

4 SHIPPER NAME GTE Operations Support Incorporated

SHIPMENT ID NUMBER 0840-07-001

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) (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)	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
9240/GTEOSI	4	0 2124	127 0069	0 0000	<3 6740E 06	<3 6740E-06	28,22,69 Liquid Methanol	0 0394	100	OXIDES/NONE	0 00	Ac-227	3 22449E-02	5.6281E-05	1 5211E-06	AU
		7 5000	0 1490	0 0002	<2 2000E+02	<2.2000E+03		1 3900				Pa-231	1 36793E-01	2 3876E-04	6 4530E-06	
												Ra-223	2 98410E-02	5 2085E-05	1 4077E-06	
												Ra-226	9 04939E-02	1 5795E-04	4.2689E-06	
												Ra-228	3 81550E-01	6 6596E-04	1 7999E-05	
												Th-227 [4.9069E-17 kg]	3 22449E-02	5.6281E-05	1 5211E-06	
												Th-228 [2 5788E-14 kg]	4 48261E-01	7 8240E-04	2 1146E-05	
												Th-230 [4 4835E-10 kg]	1 99591E-01	3 4837E-04	9 4154E-06	
												Th-232 [1 6363E-04 kg]	3.81550E-01	6 6596E-04	1 7999E-05	
												U-234 [4.4458E-08 kg]	5 84313E+00	1.0199E-02	2 7564E-04	
												U-Nat [6 2296E-04 kg]	9 37605E+00	1 6365E-02	4 4230E-04	
												Subtotal		2 9588E-02	7 9967E-04	
												Total		2 9588E-02	7.9967E-04	
												Source [7.8663E-04 kg]				
9241/GTEOSI	4	0 2124	127 0069	0 0000	<3 6740E-06	<3 6740E-06	28,22,69-Liquid Methanol	0 0398	100	OXIDES/NONE	0 00	Ac-227	3 25404E-02	6 7343E-05	1.5498E-06	AU
		7 5000	0 1400	0 0002	<2 2000E+02	<2 2000E+03		1 4100				Pa-231	1 38048E-01	2 4327E-04	6.5748E-06	
												Ra-223	3 01132E-02	5.3065E-05	1.4342E-06	
												Ra-226	9 13243E-02	1 6093E-04	4 3495E-06	
												Ra-228	3 85055E-01	6 7854E-04	1 8339E-05	
												Th-227 [4 9995E-17 kg]	3 25404E-02	6 7343E-05	1.5498E-06	
												Th-228 [2 6275E-14 kg]	4.52370E-01	7.9717E-04	2 1545E-05	
												Th-230 [4.5681E-10 kg]	2 01420E-01	3 5494E-04	9 5930E-06	
												Th-232 [1 6671E-04 kg]	3 85055E-01	6 7854E-04	1 8339E-05	

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 Seavan

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 (03-06)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-07-001

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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) 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	
												U-234 [4 5296E-08 kg]	5 89666E+00	1.0391E-02	2 8084E-04	
												U-Nat [6 3471E-04 kg]	9 46208E+00	1.6674E-02	4 5065E-04	
												Subtotal		3.0146E-02	8 1476E-04	
												Total		3.0146E-02	8.1476E-04	
												Source [8 0147E-04 kg]				
9242/GTEOSI	4	0 2124	122 4899	0 0000	<3 6740E-06	<3 6740E-05	28,22,69-Liquid Methanol	0 0402	100	OXIDES/NONE	0 00	Ac-227	3 22334E-02	5.7343E-05	1 5498E-06	AU
												Pa-231	1.36746E-01	2 4327E-04	6 5748E-06	
												Ra-223	2 98291E-02	5 3065E-05	1 4342E-06	
		7 5000	0 1350	0 0002	<2 2000E+02	<2 2000E+03		1.4200				Ra-226	9.04628E-02	1 6093E-04	4 3495E-06	
												Ra-228	3.81423E-01	6 7854E-04	1 8339E-05	
												Th-227 [4 9995E-17 kg]	3 22334E-02	5 7343E-05	1 5498E-06	
												Th-228 [2 6275E-14 kg]	4 48102E-01	7 9717E-04	2 1545E-05	
												Th-230 [4 5681E-10 kg]	1 99619E-01	3 5494E-04	9 5930E-06	
												Th-232 [1 6671E-04 kg]	3.81423E-01	6 7854E-04	1 8339E-05	
												U-234 [4.5296E-08 kg]	5 84103E+00	1 0391E-02	2 8084E-04	
												U-Nat [6 3471E-04 kg]	9 37281E+00	1 6674E-02	4 5065E-04	
												Subtotal		3 0146E-02	8 1476E-04	
												Total		3 0146E-02	8.1476E-04	
												Source [8 0147E-04 kg]				
9243/GTEOSI	4	0 2124	113.3981	0 0000	<3 6740E-06	<3 6740E-05	28,22,69 Liquid Methanol	0 0362	100	OXIDES/NONE	0 00	Ac-227	3 26355E-02	5.2033E-05	1 4063E-06	AU
												Pa-231	1.38451E-01	2 2074E-04	5 9660E-06	
												Ra-223	3.02012E-02	4 8152E-05	1 3014E-06	
		7 5000	0 1250	0 0002	<2 2000E+02	<2 2000E+03		1 2800				Ra-226	9.15898E-02	1 4603E-04	3 9467E-06	
												Ra-228	3 86182E-01	6 1572E-04	1.6641E-05	
												Th-227 [4 5365E-17 kg]	3 26355E-02	5 2033E-05	1 4063E-06	
												Th-228 [2.3842E-14 kg]	4 53690E-01	7 2335E-04	1.9550E-05	
												Th-230 [4.1451E-10 kg]	2.02009E-01	3 2208E-04	8.7048E-06	
												Th-232 [1 5128E-04 kg]	3 86182E-01	6.1572E-04	1 6641E-05	
												U-234 [4.1102E-08 kg]	5 91376E+00	9.4267E-03	2.5483E-04	
												U-Nat [5.7594E-04 kg]	9 48967E+00	1.5130E-02	4.0892E-04	
												Subtotal		2.7355E-02	7 3931E-04	
												Total		2.7355E-02	7.3931E-04	

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-07-001

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
							PHYSICAL DESCRIPTION			14 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION				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 & 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)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0 1%	RADIONUCLIDES	pCi/gm	MBq	mCi	
												Source [7 2726E-04 kg]				
9244/GTEOSI	4	0 2124	106 8622	0 0000	<3 6740E-06	<3 6740E-06	28,22,69-Liquid Methanol	0 0348	100	OXIDES/NONE	0 00	Ac-227	3 23395E-02	4 8847E-05	1 3202E-06	AU
												Pa-231	1 37194E-01	2 0723E-04	5 6007E-06	
		7 5000	0 1200	0 0002	<2 2000E+02	<2 2000E+03		1 2000				Ra-223	2 99267E-02	4.5203E-05	1 2217E-06	
												Ra-226	9 07599E-02	1 3709E-04	3 7051E-06	
												Ra-228	3 82675E-01	5 7801E-04	1.5622E-05	
												Th-227 [4 2588E-17 kg]	3 23395E-02	4.8847E-05	1 3202E-06	
												Th-228 [2 2382E-14 kg]	4 49674E-01	6.7906E-04	1 8353E-05	
												Th-230 [3 8914E-10 kg]	2 00178E-01	3.0236E-04	8.1719E-06	
												Th-232 [1 4202E-04 kg]	3 82675E-01	5 7801E-04	1 5622E-05	
												U-234 [3 8586E-08 kg]	5 86016E+00	8 8515E-03	2 3923E-04	
												U-Nat [5 4068E-04 kg]	9 40350E+00	1 4204E-02	3 8388E-04	
												Subtotal		2 5680E-02	6 9405E-04	
												Total		2.5680E-02	6 9405E-04	
												Source [6.8273E-04 kg]				
9246/GTEOSI	4	0 2124	127 0059	0 0000	<3 6740E-06	<3 6740E-06	28,22,69-Liquid Methanol	0 0394	100	OXIDES/NONE	0 00	Ac-227	3 22449E-02	5 6281E-05	1.5211E-06	AU
												Pa-231	1.36793E-01	2 3876E-04	6 4530E-06	
		7 5000	0 1400	0 0002	<2 2000E+02	<2 2000E+03		1 3900				Ra-223	2 98410E-02	5 2085E-05	1 4077E-06	
												Ra-226	9 04939E-02	1.5795E-04	4 2689E-06	
												Ra-228	3.81550E-01	6 6596E-04	1 7999E-05	
												Th-227 [4 9069E-17 kg]	3 22449E-02	5 6281E-05	1 5211E-06	
												Th-228 [2.5788E-14 kg]	4 48261E-01	7.8240E-04	2 1146E-05	
												Th-230 [4 4835E-10 kg]	1.99591E-01	3 4837E-04	9.4154E-06	
												Th-232 [1.6363E-04 kg]	3 81550E-01	6.6596E-04	1 7999E-05	
												U-234 [4 4458E-08 kg]	5 84313E+00	1.0199E-02	2.7564E-04	
												U-Nat [6.2296E-04 kg]	9 37605E+00	1 6365E-02	4 4230E-04	
												Subtotal		2 9588E-02	7.9967E-04	
												Total		2 9588E-02	7 9967E-04	
												Source [7 8663E-04 kg]				

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

EnergySolutions, LLC

2 MANIFEST NUMBER 0840-07-001

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 AU-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) / (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)	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	
9246/GTEOSI	4	0 2124	127 0059	0 0000	<3 6740E-06	<3 6740E-06	28,22,59-Liquid Methanol	0 0402	100	OXIDES/NONE	0 00	Ac-227	3 22334E-02	5 7343E-05	1 5498E-06	AU
		7 5000	0 1400	0 0002	<2 2000E+02	<2 2000E+03		1 4200				Pa-231	1 36746E-01	2 4327E-04	6 5748E-06	
												Ra-223	2 98291E-02	5 3065E-05	1 4342E-06	
												Ra-226	9 04628E-02	1 6093E-04	4 3495E-06	
												Ra-228	3 81423E-01	6 7854E-04	1 8339E-05	
												Th-227 [4 9996E-17 kg]	3 22334E-02	5 7343E-05	1 5498E-06	
												Th-228 [2 6275E-14 kg]	4 48102E-01	7 9717E-04	2 1545E-05	
												Th-230 [4 5681E-10 kg]	1 99619E-01	3 5494E-04	9 5930E-06	
												Th-232 [1 6671E-04 kg]	3 81423E-01	6 7854E-04	1 8339E-05	
												U-234 [4 5296E-08 kg]	5 84103E+00	1 0391E-02	2 8084E-04	
												U-Nat [6 3471E-04 kg]	9 37281E+00	1 6674E-02	4 5065E-04	
												Subtotal		3 0146E-02	8 1476E-04	
												Total		3 0146E-02	8 1476E-04	
												Source [8.0147E-04 kg]				
Shipment Totals		1 4988	862 7638									Source [5 3877E-03 kg]		2 0265E-01	5 4770E-03	
		52 5000	0 9400													

FORM 541A (03-06)

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 0840-07-001
EnergySolutions, LLC

Isotope	Total Activity (MBq)	(mCi)	(Ci)
Ac-227	3 8548E-04	1 0418E-05	1 0418E-08
Pa-231	1 6353E-03	4 4197E-05	4 4197E-08
Ra-223	3 5672E-04	9 6411E-06	9.6411E-09
Ra-226	1 0818E-03	2 9238E-05	2 9238E-08
Ra-228	4 5612E-03	1.2328E-04	1 2328E-07
Th-227	3.8548E-04	1 0418E-05	1 0418E-08
Th-228	5 3588E-03	1 4483E-04	1 4483E-07
Th-230	2 3860E-03	6 4487E-05	6.4487E-08
Th-232	4 5612E-03	1 2328E-04	1 2328E-07
U-234	6.9851E-02	1.8879E-03	1.8879E-06
U-Nat	1 1209E-01	3 0293E-03	3 0293E-06

EnergySolutions, LLC

ADDITIONAL NOTES

Manifest Number
0840-07-001
PAGE 1

New York State Waste Transporter Part 364 permit No. 4A-288
New York State Waste Transporter Part 381 permit No. 4A-288

7 Drums containing Vials with 10 ml of methanol and 10 grams of soil in each vial.

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: NYD002036515

2 Page 1 of: 1

3 Emergency Response Phone: 800-424-9300

4. Manifest Tracking Number: 002825515 JJK

5 Generator's Name and Mailing Address: GTE Operations Support Incorporated, ONE Verizon Way VC34W453, Basking Ridge, NJ 07920

Generator's Site Address (if different than mailing address): GTE Operation Support Incorporated, 140 Cantiague Rock Rd, Hicksville, NY 11801

Generator's Phone: 908-559-3687

6. Transporter 1 Company Name: Priority Transport Services — Truck #38 Trailer #014235

U.S. EPA ID Number: NYR000104976

7 Transporter 2 Company Name

U S EPA ID Number

8 Designated Facility Name and Site Address: Energy Solutions, Clive Disposal Site, Interstate 80, Exit 49, Clive, UT 84029

Facility's Phone: 435-884-0155

U S 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
N	1 Waste, Methanol, 3, UN1230, PGII (Containing Radionuclides, DOT NON Regulated)	7	DM	710	P	D001 F003
	2.					
	3					
	4					

14 Special Handling Instructions and Additional Information: ERG Book Guide # 131 & 161, Pg 226, 227 & 286 & 287, 0840-07-M09964 — Emergency 24 Hr # Chemtrec 800-424-9300 Soil/Methanol — Ac 227, Pa 231, Ra 223, Ra 226, Ra 228, Th 227, Th 228, Th 230, Th 232, U 234, U Nat, Total Alt Total Alpha Emitters — Container # 9240, 9241, 9242, 9243, 9244, 9245, 9246

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 0840-07-001

Generator's/Offeror's Printed/Typed Name: Robert Miller — Signature — Month 12 Day 4 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: Julio Garcia R — Signature — Month 12 Day 4 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) — 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 L-H132 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 08 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) — Form Approved OMB No 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator ID Number: NYD002036515 | 2 Page 1 of 1 | 3 Emergency Response Phone: 800-424-9300 | 4. Manifest Tracking Number: 002825515 JJK

GENERATOR

5. Generator's Name and Mailing Address: GTE Operations Support Incorporated, ONE Verizon Way VC34W453, Basking Ridge, NJ 07920
Generator's Phone: 908-559-3687

Generator's Site Address (if different than mailing address): GTE Operation Support Incorporated, 140 Cantiague Rock Rd, Hicksville, NY 11801

6 Transporter 1 Company Name: Priority Transport Services — Truck #38 Trailer #914235 — U S EPA ID Number: NYR000104976

7 Transporter 2 Company Name — U S EPA ID Number:

8. Designated Facility Name and Site Address: Energy Solutions, Clive Disposal Site, Interstate 80, Exit 49, Clive, UT 84029
Facility's Phone: 435-884-0155 — U S 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
D	1 Waste, Methanol, 3, UN1230, PGII (Containing Radionuclides, DOT NON Regulated)	7	DM	710	P	D001 F003
	2.					
	3					
	4					

14 Special Handling Instructions and Additional Information: ERG Book Guide # 131 & 161, Pg 226, 227 & 286 & 287 — Emergency 24 Hr # Chemtrec 800-424-9300 — 0840-07-M09464 Soil/Methanol — Ac 227, Pa 231, Ra 223, Ra 226, Ra 228, Th 227, Th 228, Th 230, Th 232, U 234, U Nat, Tyal Nat, Total Alpha Beta — Container # 9240, 9241, 9242, 9243, 9244, 9245, 9246

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 — 0840-07-001

Generator's/Offeror's Printed/Typed Name: Robert Miller — Signature: [signature] — Month 12 Day 4 Year 06

INT'L

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

TRANSPORTER

17 Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Julio Garcia R — Signature: [signature] — Month 12 Day 4 Year 06

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18 Discrepancy

18a Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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: L-H132 | 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: [signature] — Month 12 Day 08 Year 06

EPA Form 8700-22 (Rev 3-05) Previous editions are obsolete — DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

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: NYD002036515

2. Page 1 of: 1

3 Emergency Response Phone: 800-424-9300

4. Manifest Tracking Number: 002825515 JJK

5 Generator's Name and Mailing Address: GTE Operations Support Incorporated, ONE Verizon Way VC34W453, Basking Ridge, NJ 07920

Generator's Site Address (if different than mailing address): GTE Operation Support Incorporated, 140 Cantiague Rock Rd, Hicksville, NY 11801

Generator's Phone: 908-559-3687

6 Transporter 1 Company Name: Priority Transport Services — Truck #38 Trailer #914235

U S EPA ID Number: NYR000104976

7 Transporter 2 Company Name

U S EPA ID Number

8 Designated Facility Name and Site Address: Energy Solutions, Clive Disposal Site, Interstate 80, Exit 49, Clive, UT 84029

Facility's Phone: 435-884-0155

U S 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
N	1 Waste, Methanol, 3, UN1230, PG II (Containing Radionuclides, DOT NON Regulated)	7	DM	710	P	D001 F003
	2					
	3					
	4					

14 Special Handling Instructions and Additional Information: ERG Book Guide # 131 & 161, Pg 226, 227 & 286 & 287, 0840-07-M09964; Emergency 24 Hr # Chemtrec 800-424-9300; Soil/Methanol; Ac 227, Pa 231, Ra 223, Ra 226, Ra 228, Th 227, Th 228, Th 230, Th 232, U 234, U 238, Total Alpha Emitters; Container # 9240, 9241, 9242, 9243, 9244, 9245, 9246

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. 0840-07-001

Generator's/Offeror's Printed/Typed Name: Robert Miller — Signature — Month 12 Day 4 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: Julio Garcia R — Signature — Month 12 Day 4 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) — 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 L-H132 | 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 08 Year 06

GENERATOR — TRANSPORTER — INT'L — DESIGNATED FACILITY

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

DESIGNATED FACILITY TO GENERATOR

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: NYD002036515

2 Page 1 of: 1

3 Emergency Response Phone: 800-424-9300

4 Manifest Tracking Number: 002825515 JJK

5. Generator's Name and Mailing Address: GTE Operations Support Incorporated, ONE Verizon Way VC34W453, Basking Ridge, NJ 07920

Generator's Phone: 908-559-3687

Generator's Site Address (if different than mailing address): GTE Operation Support Incorporated, 140 Cantiague Rock Rd, Hicksville, NY 11801

6 Transporter 1 Company Name: Priority Transport Services Truck #38 Trailer #019235

U S EPA ID Number: NYR000104976

7 Transporter 2 Company Name

U S EPA ID Number

8 Designated Facility Name and Site Address: Energy Solutions, Clive Disposal Site Interstate 80, Exit 49, Clive, UT 84029

Facility's Phone: 435-884-0155

U S EPA ID Number: UTD 982598898

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
X	1 Waste, Methanol, 3, UN1230, PG II (Containing Radionuclides, DOT NON Regulated)	7	DM	710	P	D001 F003
	2.					
	3					
	4					

14 Special Handling Instructions and Additional Information: ERG Book Guide # 131 & 161, Pg 226, 227 & 286 & 287, 0840-07-M09964

Emergency 24 Hr # Chemtrec 800-424-9300, Soil/Methanol

Ac 227, Pa 231, Ra 223, Ra 226, Ra 228, Th 227, Th 228, Th 230, Th 232, U 234, U 235, U 238

Container # 9240, 9241, 9242, 9243, 9244, 9245, 9246

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

0840-07-001

Generator's/Offeror's Printed/Typed Name: Robert Miller

Signature

Month 12 Day 4 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: Julio Garcia R

Signature

Month 12 Day 4 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)

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 L-H132 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: Ryan Fotheringham

Month 12 Day 08 Year 06

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

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

DESIGNATED FACILITY'S COPY

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

Generator Name GTE-Operations Support Incorporated Manifest 0840-07-001

File No 0840-07 Haz Manifest No 0028825515JJK

Identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261 For each waste code, identify the corresponding subcategory, or check NONE if the waste code has no subcategory Spent solvent standards are listed on the following page If F039, multi-source leachate applies those constituents must be listed and attached by the generator If D001-D043 requires treatment of the characteristic and meet 268 48 standards, then the underlying hazardous constituent(s) present in the waste must be listed and attached.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	D001	Subject to the alternative treatment standard for soil - 40 CFR Part 268 49	☐	A1
2	F003	Subject to the alternative treatment standard for soil - 40 CFR Part 268 49	☐	A1
3			☐	
4			☐	

To identify F039 or D001-D043 underlying hazardous constituent (s), use the "F039/Underlying Hazardous Constituent Form" provided (Form B1) and check here ☒
If no UHCs are present in the waste upon its initial generation check here ☐
To list additional USEPA waste code(s) and subcategone(s), use the supplemental sheet provided (Form A2) and check here ☐

HOW MUST THE WASTE BE MANAGED? In column 5 above, enter the letter (A1, A2, B1, B2 ,B3, B4, C, D, or E) below that describes how the waste must be managed to comply with the land disposal regulations (40 CFR 268 7) Please understand that if you enter the letter A2, B1, B2, B3, B4, or D you are making the appropriate certification as provided below (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed below Where these regulatory citations differ, your certification will be deemed to refer to those state citations instead of the 40 CFR citations)

A1 RESTRICTED WASTE REQUIRES TREATMENT

This waste must be treated to the applicable treatment standards set forth in 40 CFR Part 268 40

☐ For Hazardous Debris "This hazardous debris is subject to the alternative treatment standards of 40 CFR Part 268 45 "

☒ For Contaminated Soil "I certify under penalty of law that I personally have examined this contaminated soil and it (dose) contain listed hazardous waste and (does/~~does not~~) exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by 268 49 (c)"

DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS

"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268 40 or 268 49 to remove the hazardous characteristic This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment "

B1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR Part 268 40 without impermissible dilution of the prohibited waste I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment "

B2 CONTAMINATED SOIL TREATED TO PERFORMANCE STANDARDS

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268 49 without impermissible dilutions of the prohibited wastes I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment "

B3 CONTAMINATED SOIL TREATED TO ALTERNATIVE TREATMENT STANDARDS

"This contaminated soil (does/does not) contain listed hazardous waste and (does/does not) exhibit a characteristic of hazardous waste and (is subject to/complies with) the soil treatment standards as provided by 268 49(c) or the universal treatment standards "

B4 DECHARACTERIZED WASTE CONTAINING UNDERLYING HAZARDOUS CONSTITUENTS TREATED TO PERFORMANCE STANDARDS

"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268 40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in § 268 2(i) have been treated on-site to meet the § 268 48 Universal Treatment Standards I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment

C RESTRICTED WASTE SUBJECT TO A VARIANCE

This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension and may be land disposed without further treatment Enter the effective date of prohibition in column 5 above

D RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT

"I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D I believe that the information I submitted is true, accurate and complete I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment "

E WASTE IS NOT CURRENTLY SUBJECT TO PART 268 RESTRICTIONS

This waste is a newly identified waste that is not currently subject to any 40 CFR Part 268 restrictions

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information

Signature [signature] Title Broker Mgr Date 12-4-06

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM (PHASE IV) – REVERSE SIDE

If the waste identified on the first page of this form is described by any of the following USEPA hazardous waste codes F001, F002, F003, F004, F005, and all solvent constituents will not be monitored by the treater, then each constituent MUST be identified below by checking the appropriate box, and this page must accompany the shipment, along with the previous page of this form If the waste code F039 describes this waste, then the corresponding list of constituents must be attached If D001-D043 require treatment to 268 48 standards, then the u[illegible]ing hazardous constituent(s) must also be attached

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Acetone (F003)	0 28	160	Methanol (F003) X	5 6	0 75 (TCLP)[3]
Benzene (F005)	0 14	10	Methylene chloride (F001, F002)	0 089	30
n-Butanol (n-butyl alcohol) (F003)	5 6	2 6	Methyl ethyl ketone (F005)	0 28	36
Carbon disulfide (F005)	3 8	4 8 (TCLP)[3]	Methyl isobutyl ketone (F003)	0 14	33
Carbon tetrachloride (F001)	0 057	6 0	Nitrobenzene (F004)	0 068	14
Chlorobenzene (F002)	0 057	6 0	2-Nitropropane (F005)	INCIN or {(WETOX or C HOXD) followed by CARBN}	INCIN
o-Cresol (F004)	0 11	5 6	Pyridine (F005)	0 014	16
Cresol (m- and p- isomers) (F004)	0 77	5 6	Tetrachloroethylene (F001, F002)	0 056	6 0
Cyclohexanone (F003)	0 36	0 75 (TCLP)[3]	Toluene (F005)	0 080	10
o-Dichlorobenzene (F002)	0 088	6 0	1,1,1-Trichloroethane (F001, F002)	0 054	6 0
2-Ethoxyethanol (F005) also called ethylene glycol, monoethyl ether	INCIN or BIODG	INCIN	1,1,2-Trichloroethane (F002)	0 054	6 0
Ethyl acetate (F003)	0 34	33	Trichloroethylene (F001, F002)	0 054	6 0
Ethyl benzene (F003)	0 057	10	Trichloromonofluoromethane (F002)	0 020	30
[illegible]er (F003)	0 12	160	1,1,2-Trichloro-1,2,2-trifluoroethane (F002)	0 057	30
Isobutanol (Isobutyl Alcohol) (F005)	5 6	170	Xylenes (sum of o-, m-, and p-isomers) (F003)	0 32	30

[1]All spent solvent treatment standards are measured through a total waste analysis (TCA), unless otherwise noted Wastewater units are mg/l, nonwastewater are mg/kg

[2]For contaminated soils using the alternative soil treatment standards, the treatment standards for F001-F005 spent solvents must be a 90% reduction of the constituents or less than 10x the standard listed

[3]These solvents require a TCLP standard with units of mg/l

SUBCATEGORY REFERENCE

D001

A Ignitable characteristic wastes, except for the 40 CFR 261 21(a) (1) High TOC subcategory, that are managed in non-CWA/non-CWA equivalent/non-Class I SDWA systems

B Ignitable characteristic wastes, except for the 40 CFR 261 21(a) (1) High TOC subcategory, that are managed in CWA/CWA-equivalent or Class I SDWA systems

C High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261 21(a) (1) – Greater than or equal to 10% total organic carbon

D002

D Corrosive characteristic wastes that are managed in non-CWA/non-CWA-equivalent/non-Class I SDWA systems

E Corrosive characteristic wastes that are managed in CWA, CWA-equivalent, or Class I SWDA systems

F039/UNDERLYING HAZARDOUS CONSTITUENT FORM (UTS)
(Phase IV)

Generator Name	GTE Operations Support Incorporated	Manifest No	0840-07-001
Profile No	0840-07	HAZ Manifest No	002825515JJK

[illegible]1-D043 requires treatment to the 40 CRF 268 48 standards, then each underlying hazardous constituent (UHC) present in the waste at the point of [illegible]ration and at a level above the Universal Treatment Standard (UTS) constituent specific standard must be listed Write the letter (A1, B1, B2, B3, or C that corresponds to the letter on the land disposal form A1) beside each constituent present to properly describe how the constituent(s) must be managed under 40 CFR 268 7 If contaminated soil requires treatment to 40 CFR 268 49 standards, then each UHC in the waste at the point of generation and at a level above 10 times the UTS must be listed Write the appropriate letter which corresponds to the letter on the LDR form

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted
Acenaphthylene		3 4	2-Chloro-1,3-butadiene		0 28[1]
Acenapthene		3 4	Chlorodibromomethane		15
Acetone		160	Chloroethane		6 0
Acetonitrile		38[1]	bis(2-Chloroethoxy)methane		7 2
Acetophenone		9 7	bis(2-Chloroethyl)ether		6 0
2-Acetylaminofluorene		140	Chloroform		6 0
Acrolein		NA	bis(2-Chloroisopropyl)ether		7 2
Acylamide		23[1]	p-Chloro-m-cresol		14
Acrylonitrile		84	2-Chloroethyl vinyl ether		NA[1]
Aldicarb sulfone		0 28[1]	Chloromethane (Methyl chloride)		30
Aldrin		0 066	2-Chloronaphthalene		5 6
4-Aminobiphenyl	NA	NA	2-Chlorophenol		5 7
Aniline		14	3-Chloropropylene		30
Anthracene		3 4	Chrysene		3 4
Aramite		NA	o-Cresol		5 6
alpha-BHC		0 066	m-Cresol		5 6
beta-BHC		0 066	p-Cresol		5 6
delta-BHC		0 066	m-Cumenyl methylcarbamate		1 4[1]
[illegible]ma-BHC (Lindane)		0 066	Cyclohexanone		0 75 mg/l[1]
[illegible]an		1 4[1]	o,p'-DDD		0 087
Bendiocarb		1 4[1]	p,p'-DDD		0 087
Benomyl		1 4[1]	o,p'-DDE		0 087
Benzene		10	p,p'-DDE		0 087
Benz(a)anthracene		3 4	o,p'-DDT		0 087
Benzal chloride		6 0[1]	p,p'-DDT		0 087
Benzo(b)fluoranthene		6 8	Dibenz(a,h)anthracene		8 2
Benzo(k)fluoranthene		6 8	Dibenz(a,e)pyrene		NA
Benzo (g,h,i)perylene		1 8	1,2-Dibromo-3-chloropropane		15
Benzo(a)pyrene		3 4	1,2-Dibromomethane (Ethylene dibromide)		15
Bromodichloromethane		15	Dibromomethane		15
Bromomethane (Methyl Bromide)		15	m-Dichlorobenzene		6 0
4-Bromophenyl phenyl ether		15	o-Dichlorobenzene		6 0
n-Butyl alcohol		2 6	p-Dichlorobenzene		6 0
Butylate		1 4[1]	Dichlorodifluoromethane		7 2
Butyl benzyl phthalate		28	1,1-Dichloroethane		6 0
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)		2 5	1,2-Dichloroethane		6 0
Carbaryl		0 14[1]	1,1-Dichloroethylene		6 0
Carbenzadim		1 4[1]	trans-1,2-Dichloroethylene		30
Carbofuran		0 14[1]	2,4-Dichlorophenol		14
Carbofuran phenol		1 4[1]	2,6-Dichlorophenol		14
Carbon disulfide		4 8 mg/l TCLP[1]	2,4-Dichlorophenoxyacetic acid (2,4-D)		10
Carbon tetrachloride		6 0	1,2-Dichloropropane		18
Carbosulfan		1 4[1]	cis-1,3-Dichloropropylene		18
Chlordane (alpha and gamma isomers)		0 26	trans-1,3-Dichloropropylene		18
[illegible]loroaniline		16	Dieldrin		0 13
[illegible]robenzene		6 0	Diethyl phthalate		28
[illegible]hlorobenzilate		NA	p-Dimethylaminoazobenzene		NA

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted
[illegible]imethyl phenol		14	Isosafrole		2 6
Dimethyl phthalate		28	Isobutyl alcohol		170
Di-n-butyl phthalate		28	Isodrin		0 066
1,4-Dinitrobenzene		2 3	Kepone		0 13
4,6-Dinitro-o-cresol		160	Methacrylonitrile		84
2,4-Dinitrophenol		160	Methanol	A1	0 75 mg/l[1]
2,4-Dinitrotoluene		140	Methapyrilene		1 5
2,6-Dinitrotoluene		28	Methiocarb		1 4[1]
Di-n-octyl phthalate		28	Methomyl		0 14[1]
Di-n-propylnitrosamine		14	Methoxychlor		0 18
1,4-Dioxane		170	3-Methylcholanthrene		15
Diphenylamine		13[1]	4,4'-Methylene bis(2-chloroaniline)		30
Diphenylnitrosamine		13[1]	Methylene chloride		30
1,2-Diphenylhydrazine		NA	Methyl ethyl ketone (2-Butanone)		36
Disulfoton		6 2	Methyl isobutyl ketone		33
Dithiocarbamates (total)		28[1]	Methyl methacrylate		160
Endosulfan I		0 066	Methyl methansulfonate		NA
Endosulfan II		0 13	Methyl parathion		4 6
Endosulfan sulfate		0 13	Metolcarb		1 4[1]
Endrin		0 13	Mexacarbate		1 4[1]
Endrin aldehyde		0 13	Molinate		1 4[1]
EPTC		1 4[1]	Naphthalene		5 6
Ethyl acetate		33	2-Naphthylamine		NA
Ethyl benzene		10	o-Nitroaniline		14[1]
Ethyl cyanide (Propanenitrile)		360	p-Nitroaniline		28
Ethyl ether		160	Nitrobenzene		14
Bis(2-Ethylhexyl)phthalate		28[2]	5-Nitro-o-toluidine		28
[illegible] methacrylate		160	o-Nitrophenol		13[1]
[illegible]thylene oxide		NA	p-Nitrophenol		29
Famphur		15	N-Nitrosodiethylamine		28
Fluoranthene		3 4	N-Nitrosodimethylamine		2 3[1]
Fluorene		3 4	N-Nitroso-di-n-butylamine		17
Formetanate hydrochloride		1 4[1]	N-Nitrosomethylethylamine		2 3
Heptachlor		0 066	N-Nitrosomorpholine		2 3
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDDD)		0 0025	N-Nitrosopiperidine		35
1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)		0 0025	N-Nitrosopyrrolidine		35
1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)		0 0025	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		0 005
Heptachlor epoxide		0 066	1,2,3,4,6,7,8,9-Octachlorodebenzofuran (OCDF)		0 005
Hexachlorobenzene		10	Oxamyl		0 28[1]
Hexachlorobutadiene		5 6	Parathion		4 6
Hexachlorocyclopentadiene		2 4	Total PCBs (sum of all PCB isomers or all Aroclors)		10
HxCDDs (All Hexachrorodibenzo-p-dioxins)		0 001	Pebulate		1 4[1]
HxCDFs (All Hexachlorodibenzofurans)		0 001	Pentachlorobenzene		10[1]
Hexachloroethane		30	PeCDDs (All Pentachlorodibenzo-p-dioxins)		0 001
Hexachloropropylene		30[2]	PeCDFs(All Pentachlorodibenzofurans)		0 001
Indeno(1,2,3-c,d)pyrene		3 4	Pentachloroethane		6 0
Iodomethane		65	Pentachloronitrobenzene		4 8

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted	INORGANIC CONSTITUENTS	HOW MUST THIS CONSTITUENT BE MANAGED?	NWW UTS (mg/kg) unless noted
chloronitrobenzene		4 8	Antimony		1 15 mg/l TCLP
chlorophenol		7 4	Arsenic		5 0 mg/l TCLP
Phenacetin		16	Barium		21 mg/l TCLP
Phenanthrene		5 6	Beryllium		1 22 mg/l TCLP
Phenol		6 2	Cadmium		0 11 mg/l TCLP
Phorate		4 6	Chromium (Total)		0 60 mg/l TCLP
Phthalic acid		28[1]	Cyanides (Total)		590
Phthalic anhydride		28[1]	Cyanides (Amenable)		30[1]
Physostigmine		1 4[1]	Fluoride		NA[2]
Physostigmine salicylate		1 4[1]	Lead		0 75 mg/l TCLP
Promecarb		1 4[1]	Mercury (from Retort)		0 20 mg/l TCLP[1]
Pronamide		1 5	Mercury (All others)		0 025 mg/l TCLP
Propham		1 4[1]	Nickel		11 mg/l TCLP
Propoxur		1 4[1]	Selenium		5 7 mg/l TCLP
Prosulfocarb		1 4[1]	Silver		0 14 mg/l TCLP
Pyrene		8 2	Sulfide		NA[2]
Pyridine		16	Thallium		0 20 mg/l TCLP
Safrole		22	Vanadium		1 6 mg/l TCLP[2]
Silvex (2,4,5-TP)		7 9	Zinc		4 3 mg/l TCLP[1,2]
1,2,4,5-Tetrachlorobenzene		14			
TCDDs (All Tetrachlorodibenzo-p-dioxins)		0 001			
TCDFs (All Tetrachlorodibenzofurans)		0 001			
1,1,1,2-Tetrachloroethane		6 0			
1,1,2,2-Tetrachloroethane		6 0			
Tetrachloroethylene		6 0			
2,3,4,6-Tetrachlorophenol		7 4			
carb		1 4[1]			
hanate-methyl		1 4[1]			
Toluene		10			
Toxaphene		2 6			
Triallate		1 4[1]			
Tribromomethane (Bromoform)		15			
1,2,4-Trichlorobenzene		19			
1,1,1-Trichloroethane		6 0			
1,1,2-Trichloroethane		6 0			
Trichloroethylene		6 0			
Trichloromonofluoromethane		30			
2,4,5-Trichlorophenol		7 4			
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)		7 9			
1,2,3-Trichloropropane		30			
1,1,2-Trichloro-1,2,2-trifluoroethane		30			
Triethylamine		1 5[1]			
Tris-(2,3-Dibromopropyl)phosphate		0 10[1]			
Vernolate		1 4[1]			
Vinyl chloride		6 0			
Xylenes – mixed isomers (sum of o-, m-, and p-xylene concentrations)		30			

[1] These constituents are only applicable as underlying hazardous constituents These constituents are not constituents that require treatment in F039 wastes

[2] Not an underlying hazardous constituent requiring treatment in a D001-D043 waste

[3] These treatment standards are the nonwastewater (NWW) standards See 40 CFR 268 48

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-06 09:58 Bag# 9245

280 lb GR

240C-0 0958 9245 0000280

92470

09:58 24-OCT-06

1 280 lb GRGR

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-06 09:54 Bag# 9244

240 lb GR

240C-0 0954 9244 0000240

9P440

09:540 24-OCT-060

1 240 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-06 09:51 Bag# 9243
250 lb GR
240C-0 0951 9243 0000250

0

$24.00

09:510 24-OCT-060

1 250 lb GR0SS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-06 09:47 Bag# 9242
270 lb GR
240C-0 0947 9242 0000270

9P420

09:470 24-OCT-060

1 270 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-06 09:43 Bag# 9241

280 lb GR

240C-0 0943 9241 0000280

9241 0

09:43 24-OCT-06

1 280 lb GROSS

Posillico Bros. Asphalt Co., L.L.C.

1610 New Highway, Farmingdale, NY 11735-1534
631 249-1872 Ext. 247 or Ext. 270

HOT STORAGE

24-OCT-08 09:38 Bag# 9240

280 lb GR

240C-0 0938 9240 0000280

92400

09:380 24-OCT-080

1 280 lb GROSS