



State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF RADIATION CONTROL
Rusty Lundberg
Director

DRC - 2011-001309



January 18, 2011

CERTIFIED MAIL
RETURN RECEIPT REQUIRED

Bechtel Jacobs Company, LLC
ATTN: Dooley H. Buckner, Transportation Program Manager
P.O. Box 4699 (Bldg K-1580; MS-7131)
Oak Ridge, TN 37831

RE: Generator Access Permit Number 0209001584; NOTICE OF VIOLATION AND NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY

Dear Mr. Buckner:

As a result of observations made during an inspection, it has come to the attention of the Utah Division of Radiation Control that Bechtel Jacobs Company, LLC., shipped radioactive waste to the EnergySolutions, LLC disposal facility located at Clive, Utah that did not conform to the Utah Radiation Control Rules.

Specifically, the Division of Radiation Control is concerned that the apparent lack of management control regarding the implementation of your waste classification procedures resulted in significant violations of Utah Radiation Control Rules. Consequently, your required response to this letter should describe those actions planned or taken to improve the effectiveness of the management control of your waste classification procedures, with particular emphasis on measures currently being taken to prevent future waste classification violations.

Corrective actions taken to avoid future noncompliance are expected to be effective and lasting. Utah Administrative Code Subsection R313-I4-I5(2)(b)(ii) states, "ineffective licensee programs for problem identification or correction are unacceptable. In cases involving repeated poor performance in an area of concern or serious breakdown in management control, the Executive Secretary may apply the full enforcement authority."

A Notice of Violation and Notice of Proposed Imposition of Civil Penalties is enclosed. The particular violations are described in the enclosed Notice. Your attention to this matter is appreciated.

UTAH RADIATION CONTROL BOARD

Rusty Lundberg
Rusty Lundberg, Executive Secretary

RL/jf
Enclosure
cc: Jeff Ginsburg, EnergySolutions

**UTAH RADIATION CONTROL BOARD
NOTICE OF VIOLATION
AND
NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**

Bechtel Jacobs Company, LLC
P.O. Box 4699 (Bldg K-1580; MS-7131)
Oak Ridge, TN 37831

Generator Site Access Permit No. 020 900 1584

In a letter dated December 13, 2010, EnergySolutions notified the Utah Division of Radiation Control (UDRC) of a non-compliance issue at the EnergySolutions Low-Level Radioactive Waste Disposal Facility in Clive, Utah. The purpose of the letter was to inform the Executive Secretary of the Utah Radiation Control Board of multiple shipments with containers containing waste exceeding Class A waste limits that were accepted and disposed at the Clive facility. As a result of the investigation, violations of the Utah Radiation Control Rules were identified. The authority for this proposed action is Utah Code Annotated (1953, as amended) Section 19-3-109. The proposed penalties have been arrived at by using Rule R313-14 of the Utah Administrative Code (UAC). The particular violations and the associated proposed civil penalty are set forth below:

- Utah Radiation Control Rule R313-26-6 states: "Generator Site Access Permittees shall be subject to the provisions of Rule R313-14 for violations of federal regulations, state rules or requirements in the current land disposal facility operating license regarding radioactive waste packaging, transportation, labeling, notification, classification, marking, manifesting or description."

License Condition 9.B of the receiving land disposal facility, EnergySolutions (Licensee), Radioactive Material License Number UT2300249, states: "In accordance with Utah Code Annotated 19-3-105, the Licensee may not receive Class B or Class C low-level radioactive waste without first receiving approval from the Executive Secretary of the Utah Radiation Control Board and also receiving approval from the Governor and the Legislature."

Contrary to this requirement, radioactive waste shipments from Bechtel Jacobs Company, LLC, (Permittee), were identified and confirmed by the Division of Radiation Control as exceeding Class A limits. The permittee misclassified and certified the waste that EnergySolutions received, accepted and disposed of as Class A. The shipments and associated containers are listed in the table below:

DATE	SHIPMENT NUMBER	CONTAINER NUMBERS
February 26, 2010	9001-01-1020	X10C0506703
	9001-01-1021	X10C0102456; X10C0012438; X10C0103790; X10C0301419
March 1, 2010	9001-01-1023	X10C0012435; X10C0103824; X10C0301420
March 8, 2010	9001-01-1035	X10C0506580
March 15, 2010	9001-01-1043	X10C0012439
	9001-01-1053	X10C0012433; X10C0000107
	9001-01-1050	X10C0400310; X10C0000105; X10C9901032
March 18, 2010	9001-01-1055	X10C0102820

**UTAH RADIATION CONTROL BOARD
NOTICE OF VIOLATION
AND
NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**

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Bechtel Jacobs Company, LLC
P.O. Box 4699 (Bldg K-1580; MS-7131)
Oak Ridge, TN 37831

Generator Site Access Permit No. 020 900 1584

These shipments consisted of metal boxes characterized and described on the Nuclear Regulatory Commission (NRC) Uniform Low-Level Waste Manifest Form 541 as Class A unstable material. It was determined that the classification calculations of the material were based on the container gross weight, rather than the net weight. Therefore, it was misclassified as Class A waste.

This violation is of significant concern and has been characterized as Severity Level III. The base penalty for this Severity Level is \$2,500.00. In accordance with R313-14-15(2)(E) "The civil penalty may be increased as much as 50% where multiple examples of a particular violation are identified during the inspection period." Since multiple shipments that exceeded the Class A limits arrived on separate days, the DRC will increase the civil penalty by 50% for multiple examples. Therefore, a civil penalty of \$2,500.00 is proposed and increased 50% for a total of \$3,750.00.

In addition, in accordance with Utah Radiation Control Rule R313-26-6 the above violation was evaluated utilizing the Generator Site Access Permit Enforcement Policy. Accordingly, Bechtel Jacobs Company, LLC., Generator Site Access Permit will be assessed 125 points for each mischaracterization of the eight waste shipments for a total of 1,000 points.

2. Utah Radiation Control Rule R313-15-1006(3), which incorporates by reference federal regulation 10 CFR 20, Appendix G, Section II. *Certification*, requires the authorized representative of the waste generator to certify that the transported material is properly classified and described.

Contrary to the above, the Permittee wrongly certified that the waste was classified as Class A.

This violation is characterized as a Severity Level IV. The base penalty for this Severity Level is \$750.00. In accordance with R313-14-15(2)(E) "The civil penalty may be increased as much as 50% where multiple examples of a particular violation are identified during the inspection period." Since multiple shipments were wrongly certified as Class A, the DRC will increase the civil penalty by 50% for multiple examples. Therefore, a civil penalty of \$750.00 is proposed and increased 50% for a total of \$1,125.00.

In accordance with Utah Radiation Control Rule R313-26-6 the above violation was evaluated utilizing the Generator Site Access Permit Enforcement Policy. Accordingly, Bechtel Jacobs Company, LLC., Generator Site Access Permit will be assessed 100 points per each shipment for failure to execute the required shipper's certification for a total of 800 points.

Regarding the civil penalties, the licensee may within 30 days of receipt of this Notice, pay the civil penalty in the amount of \$4,875.00, or may protest the imposition of the civil penalties in whole or in part by written answer. Should the permittee fail to answer in the time specified, the Utah Radiation Control Board will issue an order imposing a civil penalty in the amount proposed.

Regarding the assessed points, DRC understands that the permittee has voluntarily suspended shipments as of November 19, 2010. The DRC requires all shipments be suspended until the corrective actions are accepted by the Executive Secretary. Any reply to the Notice of Violation should include, for each violation: (1) the corrective steps which have been taken and the results achieved; (2) the corrective steps which have been taken to prevent recurrence; and (3) the date full compliance will be achieved. A response protesting the

**UTAH RADIATION CONTROL BOARD
NOTICE OF VIOLATION
AND
NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTY**

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Bechtel Jacobs Company, LLC
P.O. Box 4699 (Bldg K-1580; MS-7131)
Oak Ridge, TN 37831

Generator Site Access Permit No. 020 900 1584

Imposition of Civil Penalties shall include: (1) an admission or denial of the item of non-compliance; (2) a demonstration of extenuating circumstances; (3) a showing of error in the Notice of Violation; or (4) other reasons why the penalty should not be imposed.

Any response or written answer to this Notice of Violation/Notice of Proposed Imposition of Civil Penalty should be addressed to Rusty Lundberg, Executive Secretary, Utah Radiation Control Board, 195 North 1950 West, P.O. Box 144850, Salt Lake City, Utah 84114-4850. The licensee's attention is directed to the Administrative Procedures set forth in Utah Code Annotated (UCA) 63G-4. If a hearing is requested, the Executive Secretary of the Utah Radiation Control Board will designate the time and place of the hearing.

Upon failure to pay any civil penalty due which has been subsequently determined in accordance with the applicable provisions of UCA 19-3-109 and R313-14, the matter may be referred to the Attorney General, and the civil penalty may be collected by civil action pursuant to UCA 19-3-109(5).

Dated at Salt Lake City, Utah
This 18th day of January, 2011

UTAH RADIATION CONTROL BOARD


Rusty Lundberg, Executive Secretary

FORM 540 Energy Solutions, Cive Disposal Site
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
 SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code)
 665-574-3282

ORGANIZATION
 ETRP P55

2. IS THIS AN EXCLUSIVE USE SHIPMENT? YES NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST
 10

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

If Yes, provide Manifest Number _____

5. SHIPPER - NAME AND FACILITY
 BAC, LLC - ETRP/WD on behalf of the U.S. DOE
 HMT 58 @ Blair Rd.
 Oak Ridge, TN 37830

SHIPPER ID NUMBER
 10K041

COLLECTOR
 G

PROCESSOR
 G

6. CARRIER - Name and Address
 SPECIALTY TRANSPORT
 2550 MITCHELL STREET
 KNOXVILLE, TN 37917

TRUCK #
 351

TRAILER #
 4822

CONTACT
 DAVID PEARBERTON

SHIPMENT NUMBER
 10K041

SHIPMENT DATE
 02/23/2010

SHIPPER TELEPHONE NUMBER
 (665) 71-1011

EPA ID NUMBER
 TNR0001247

TELEPHONE NUMBER
 (665) 71-1011

7. FORM 540 AND 540A
 FORM 541 AND 541A
 FORM 542 AND 542A
 ADDITIONAL INFORMATION

8. CONSIGNEE - Name and Facility Address
 Energy Solutions, Cive Disposal Site
 (Transportation) **SIXX FUELITY**
 Todd County, US 180, Exit 49
 Cive, UT 84029

CONTRACT
 8009-01-1021-88

CONTACT
 Transportation Compliance
 TELEPHONE NUMBER
 (435) 864-0155

9. SIGNATURE - Authorized consignee acknowledgment
 [Signature]
 DATE
 2/26/2010

10. CERTIFICATION
 I hereby certify that the beneath-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the regulatory requirements of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Part 20 and 61, or equivalent State regulations.

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. RADIOACTIVE RADIONUCLIDES

16. TOTAL PACKAGE ACTIVITY
 MBq

17. CLASS
 (Use appropriate units)

18. WEIGHT OR VOLUME
 (Use appropriate units)

19. IDENTIFICATION NUMBER OF PACKAGE

UN321, Radioactive material, low specific activity (LSA-II), 7, Solid/Other, Pu-238, Cm-244, Pu-239, U-233, 7, 73E-04 T8q, Fissile-Exempted	NA	NA	Solid/Other	CA-244; CO-60; CS-137; EU-152; PU-238; PU-239; SR-90; U-233; U-234; U-235; U-238	7.7315E+02	2.0896E+01	LSA II	2.55 m ³	X10C0102456
UN321, Radioactive material, low specific activity (LSA-II), 7, Solid/Other, Pu-238, Cm-244, Pu-239, U-233, 7, 73E-04 T8q, Fissile-Exempted	NA	NA	Solid/Other	CA-244; CO-60; CS-137; EU-152; PU-238; PU-239; SR-90; U-233; U-234; U-235; U-238	7.8120E+02	2.1114E+01	LSA II	2.55 m ³	X10C0012438
UN321, Radioactive material, low specific activity (LSA-II), 7, Solid/Other, Cm-244, Am-241, 1.85E-04 T8q, Fissile-Exempted	NA	NA	Solid/Other	AG-110M; AM-241; AM-243; CE-141; CE-144; CE-144; CF-249; CF-250; CF-251; CF-252; CM-242; CM-244; CM-246; CM-248; CO-60; CS-134; CS-137; EU-152; EU-154; EU-155; NP-239; PU-238; PU-239; PU-240; PU-241; PU-242; RU-103; RU-106; SB-135; SR-90; ZR-95	1.8543E+02	5.0115E+00	LSA II	2.68 m ³	X10C0509808
UN321, Radioactive material, low specific activity (LSA-II), 7, Solid/Other, Cm-244, Pu-239, U-233, 7, 73E-04 T8q, Fissile-Exempted	NA	NA	Solid/Other	AG-110M; AM-241; AM-243; CE-141; CE-144; CE-144; CF-249; CF-250; CF-251; CF-252; CM-242; CM-244; CM-246; CM-248; CO-60; CS-134; CS-137; EU-152; EU-154; EU-155; NP-239; PU-238; PU-239; PU-240; PU-241; PU-242; RU-103; RU-106; SB-135; SR-90; ZR-95	1.9317E+01	5.2208E+01	LSA II	2.75 m ³	X10C0506692
UN321, Radioactive material, low specific activity (LSA-II), 7, Solid/Other, Cm-244, Pu-239, U-233, 7, 73E-04 T8q, Fissile-Exempted	NA	NA	Solid/Other	AG-110M; AM-241; AM-243; CE-141; CE-144; CE-144; CF-249; CF-250; CF-251; CF-252; CM-242; CM-244; CM-246; CM-248; CO-60; CS-134; CS-137; EU-152; EU-154; EU-155; NP-239; PU-238; PU-239; PU-240; PU-241; PU-242; RU-103; RU-106; SB-135; SR-90; ZR-95	2.6500E+01	6.8918E+01	LSA II	2.55 m ³	X10C0506681

FOR CONSIGNEE USE ONLY

Record Waste Description Inadequate _____

Container Integrity Inadequate _____

Contamination or Leakage Detected _____

Uninspected Exposure Rates Detected _____

Labels, Markings, etc. Inadequate _____

Other No Violations Detected on this Shipment

20. TERMS AND CONDITIONS

A. HAZARDOUS MATERIALS: Consignor represents and warrants that these materials are in conformity with the applicable Federal, State, and local regulations and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of the Department of Transportation, 10 CFR Part 20 and 61, or equivalent State regulations.

B. TITLE: Upon completion of the shipment and delivery to the consignee, the title to the materials and any other property shall vest in the consignee.

C. WASTE MATERIALS: Consignor represents and warrants that these materials are in conformity with the applicable Federal, State, and local regulations and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of the Department of Transportation, 10 CFR Part 20 and 61, or equivalent State regulations.

D. INCORPORATION: Consignor agrees to indemnify, defend, and hold harmless the consignee, its officers, employees, and agents against all claims, damages, and liability, including reasonable attorneys' fees, arising from the transportation and disposal of the materials described herein, whether or not such claims, damages, and liability are caused in whole or in part by the negligence of the consignee or its officers, employees, and agents.

Form 540 (7-2007)

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

B. MANIFEST NUMBER
(Use this number on all continuation pages)
8009-01-1021-58

PAGE 2 OF 2 PAGE(S)

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL -RADIOACTIVE-	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES	16. TOTAL PACKAGE ACTIVITY MBq	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
UN3321, Radioactive material, low specific activity (LSA-II), 7, Solid/Oxide Cm244, Cf252, Am241 2.55E-05 TBq Fissile-Exempted	NA	NA	Solid/Oxide	AG-110M; AM-241; AM-243; CE-141; CE-144; CF-249; CF-250; CF-251; CF-252; CM-242; CM-244; CM-246; CM-248; CO-60; CS-134; CS-137; EU-152; EU-154; EU-155; NP-239; PU-238; PU-239; PU-240; PU-241; PU-242; RU-103; RU-106; SB-125; SR-90; ZR-95	2.5500E+01 6.8818E-01	LSA II	2.68 m ³ 481.000000 kg	X10C0103843
UN3321, Radioactive material, low specific activity (LSA-II), 7, Solid/Oxide Cm244, Cf252, Am241 2.71E-05 TBq Fissile-Exempted	NA	NA	Solid/Oxide	AG-110M; AM-241; AM-243; CE-141; CE-144; CF-249; CF-250; CF-251; CF-252; CM-242; CM-244; CM-246; CM-248; CO-60; CS-134; CS-137; EU-152; EU-154; EU-155; NP-239; PU-238; PU-239; PU-240; PU-241; PU-242; RU-103; RU-106; SB-125; SR-90; ZR-95	2.7092E+01 7.3222E-01	LSA II	2.68 m ³ 599.000000 kg	X10C0301351
UN3321, Radioactive material, low specific activity (LSA-II), 7, Solid/Oxide Pu238, Cm244, Pu239 U-233 5.78E-04 TBq Fissile-Exempted	NA	NA	Solid/Oxide	CM-244; CO-60; CS-137; EU-152; PU-238; PU-239; SR-90; U-233; U-234; U-235; U-238	5.7787E+02 1.5818E-01	LSA II	2.55 m ³ 604.000000 kg	X10C0103790
UN3321, Radioactive material, low specific activity (LSA-II), 7, Solid/Oxide W186, Re186, W185 2.64E-02 TBq Fissile-Exempted	NA	NA	Solid/Oxide	AM-241; CM-244; CO-60; EU-152; PU-238; PU-239; PU-240; RE-186; SC-46; SE-75; W-185; W-186	2.6378E+04 7.1288E-02	LSA II	2.55 m ³ 522.000000 kg	X10C0301345
UN3321, Radioactive material, low specific activity (LSA-II), 7, Solid/Oxide Pu238, Cm244, Pu239 U-233 6.79E-04 TBq Fissile-Exempted	NA	NA	Solid/Oxide	CM-244; CO-60; CS-137; EU-152; PU-238; PU-239; SR-90; U-233; U-234; U-235; U-238	6.7896E+02 1.8350E-01	LSA II	2.68 m ³ 629.000000 kg	X10C0301418

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

2. MANIFEST NUMBER
8009-01-1021-48
3. PAGE 2 OF 9 PAGE(S)

5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1.5.1A)	7. VOLUME m ³	8. WASTE AND CONTAINER WEIGHT kg	9. SURFACE RADIATION LEVEL (mSv/hr)	10. SURFACE CONTAMINATION (dpm/100 cm ²)		11. WASTE DESCRIPTION (See Note 2.6. Note 2A)	12. PHYSICAL DESCRIPTION			13. WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER		14. CHEMICAL DESCRIPTION CHEMICAL FORM CHEMICAL AGENT	15. RADIOLOGICAL DESCRIPTION	16. WASTE CLASSIFICATION
					ALPHA	BETA		GAMMA	12.1. SOLIDIFICATION MEDIA (See Note 3)	12.2. APPROPRIATE WASTE VOLUME(S) IN CONTAINER m ³	12.3. CHEMICAL FORM CHEMICAL AGENT (If > 0.1%)	13.1. INDIVIDUAL RADIOCLUSTERS AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIOCLUSTERS PERCENT			
X1000100790	2	2.54851	604.00000 0.66580	0.003 0.3	< 0.00000334 < 20	< 0.00000334 < 200	H	99	0000 / NP	NP	CLM-244 CO-60 CS-137 EU-152 PU-238 PU-239 SR-90 U (DEF) U-233 END Total	5.5891E-02 2.0076E-02 1.4075E-04 3.0072E-02 7.1848E-00 1.7208E+03 2.2294E-04 1.9024E-02 8.2935E-03 5.7787E-02 12.1556E-01 1.5462E-01	5.8200E-01 2.5463E-02 2.1013E-04 6.4175E-01 1.0224E-07 1.5814E-01 6.7846E-06 2.0081E-02 1.7145E-00 9.8012E-02 7.4742E-01 2.0996E-00	1.5846E-00 4.8212E-02 3.5145E-00 7.2389E-01 1.7202E-00 4.1778E-01 5.3175E-00 4.5874E-02 1.9806E-00	AJ
X1000100343	2	2.88443	491.00000 0.54124	< 0.001 < 0.1	< 0.00000334 < 20	< 0.00000334 < 200	H	99	0000 / NP	NP	AG-110M AM-243 AM-243 CE-141 CE-144 CF-248 CF-250 CF-251 CF-252 CM-242	9.8248E-01 1.1220E-02 2.7180E-01 8.7895E-00 1.8841E-02 8.0400E-01 3.5078E-03 9.0411E-01 9.4471E-00	7.8910E-03 1.4897E-01 1.0046E-02 2.2237E-01 7.1780E-02 1.5503E-04 6.5860E-03 2.8172E-05 7.4000E-01 7.7300E-02	2.1097E-04 3.7715E-03 2.6928E-04 5.9498E-03 4.1401E-06 1.7427E-04 7.6024E-07 1.9400E-02 2.0996E-03	AJ
Package Total															

Form 541A (7-2007) Indicates Cross Contamination

UNIFORM LOW-LEVEL RADIOACTIVE
WASTE MANIFEST

Energy Solutions, Clive Disposal Site

2. MANIFEST NUMBER
8099-01-1021-88

PAGE 3 OF 4 PAGES(S)

DISPOSAL CONTAINER DESCRIPTION										CONTAINER AND WASTE DESCRIPTION (CONTINUATION)				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER				18. WASTE CLASSIFICATION
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Item 1 & 1A)	7. VOLUME m ³	8. WASTE AND CONTAINER WEIGHT kg	9. SURFACE RADIATION LEVEL mSv/hr	10. SURFACE CONTAMINATION ALPHA	BETA	GAMMA	11. WASTE DESCRIPTION (See Item 2 & Item 2A)	12. APPROXIMATE WASTE VOLUME IN CONTAINER m ³	13. SOLIDIFICATION, STABILIZATION, MEDICAL (See Item 3)	14. CHEMICAL FORM CHELATING AGENT	15. CHEMICAL DESCRIPTION IF > 0.1%	16. RADIOACTIVE ISOTOPES	17. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	19. ACTIVITY	20. HALF-LIFE	21. PERCENT	22. CLASSIFICATION
Package Total																		
X1000001345	2	2.54831	532.0000	0.018	< 0.00000334	< 20	< 200	H	2.54831	90.00000	NP	NP	AM-241 CM-244 CO-60 EU-152 PU-238 PU-239 PU-240	1.1895E-01 2.7086E-02 5.6458E-03 1.5928E-03 1.1899E-01 3.8419E-01 2.2455E-01 1.6418E-01	8.9590E-02 1.3339E-02 3.3004E-01 8.8009E-02 6.9590E-02 1.0904E-10 2.2455E-01 8.7598E-08 2.2455E-01	1.8808E-03 4.2808E-04 8.5200E-01 2.3800E-01 1.6800E-03 6.0700E-03 6.0700E-03 6.0700E-03	AU	

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

DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
1. CONTAINER IDENTIFICATION NUMBER (GENERATION ID NUMBER(S))	2. CONTAINER DESCRIPTION (See Item 1 & 1A)	3. VOLUME (GAL)	4. WEIGHT AND CONTAINER WEIGHT (LBS)	5. SURFACE RADIATION LEVEL (MINIMUM)	6. SURFACE CONTAMINATION (MBQ/CM ²)		7. WASTE DESCRIPTION (See Item 2 & Item 2A)	8. PHYSICAL DESCRIPTION		9. CHEMICAL FORM / CHELATING AGENT (F > 0.1%)	10. RADIOLOGICAL DESCRIPTION		11. WASTE CLASSIFICATION						
					ALPHA	BETA-GAMMA		12. APPROXIMATE VOLUME IN CONTAINER (GAL)	13. AGGREGATE SOLIDIFICATION MEDIA (See Item 3)		14. CHEMICAL DESCRIPTION	15. RADIOLOGICAL DESCRIPTION		16. CHEMICAL DESCRIPTION	17. CHEMICAL DESCRIPTION	18. WASTE CLASSIFICATION			
Package Total										Package Total									
X100000000	2	2.88443	1150.00000	0.001	< 0.00000334	< 200	H	98	Odder / NP	NP	AG-110M AA-241 AM-243 CE-141 CS-144	1.7925E-00 3.2022E-01 2.2189E-00 5.0515E-01 1.8271E-01	5.1402E-04	8.0538E-02 Mj 6.7898E-02 2.5293E-04 Mj 0.0538E-02 Mj	1.8350E-01	AU			
X100000000	2	2.88443	1150.00000	0.006	< 0.00000334	< 200	H	98	Odder / NP	NP	CM-244 CO-60 CS-137 EU-152 PU-239 PU-239 PU-239 SR-90 U (OEF) U-233 Sub Total	5.2851E-03 2.2689E-02 1.1361E-04 2.4002E-03 5.7702E-03 1.3884E-03 1.7871E-04 1.5232E-03 6.6387E-03 5.1402E-04	2.2100E-03	1.3871E-08 Mj 2.7092E-01 8.5649E-01 2.9970E-00 1.5409E-02 3.1173E-01 7.6220E-01 1.1032E-01 7.9743E-06 Mj 2.3600E-02 2.0121E-00 0.0539E-02 Mj 8.7898E-01 2.4442E-04 Mj	1.8350E-01	AU			

Form 541A (7-2007) - Indicates Cross Contamination