

WEST[®] Pharmaceutical SERVICES

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November 17, 2006

Mr. Dennis Lawyer
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

RE: NRC License Number 37-30229-01
Docket Number: 03033881
Control Number: 138463

Dear Dennis:

This letter is in response to your request for additional information concerning West Pharmaceutical Services' application to terminate our Materials License. The below responses are numbered to correspond to your requests in your email dated 11/02/2006.

1. All records of sewage disposal of materials with a half-life of 120 days or more are included in Attachment 1. There are five records from September 1997 through August of 1998 which log the sewage disposal of C¹⁴ and H₃.
2. All records of liquid scintillation counting medium or animal tissues which were disposed of as non-radioactive material were previously provided to you in my previous correspondence dated May 19, 2006 in Attachment 1. The description of the waste is noted on the Uniform Low-Level Radioactive Waste Manifests. I have re-submitted these records in Attachment 2 of this correspondence.
3. No measurements or calculations to evaluate the release of radioactive effluents to the environment were required and no records were kept.
4. Licensed materials were last used at this facility on August 26, 1999.
5. Our Waste Storage Area was never used for the storage of licensed material. Although constructed and isolated for such purposes, the small amount of waste generated was kept in storage barrels in the Radioisotope Laboratory.
6. Licensed material has not been used in the Radioisotope Laboratory after our survey on February 14, 2005.

RECEIVED
REGION 1

2006 NOV 22 PM 12: 23

J-6
MS-16

West Pharmaceutical Services
NRC License Number 37-30229-01
Docket Number: 03033881
Control Number: 138463

Please contact me if you need additional information.

Respectfully,

A handwritten signature in black ink that reads "Paul G. Diorio". The signature is written in a cursive style with a large, prominent "P" and "D".

Paul G. Diorio
Director – Safety, Health and Security
West Pharmaceutical Services

Attachments (2)

West Pharmaceutical Services
NRC License Number 37-30229-01
Docket Number: 03033881
Control Number: 138463

ATTACHMENT 1

SEWAGE DISPOSAL RECORDS

Sep 97

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 1 of 2

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		^3H	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
29 Sep. 97	^{14}C - dextran	^{14}C	$3 \times 10^{-4} \text{ mCi}$
		^{14}C	
		^{14}C	
		^{14}C	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		^{32}P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		^{33}P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		^{35}S	
Total:			

*revised
Edward A. Kaminski
6 Oct 97*

**RADIATION
SAFETY OFFICER**

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 2 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹²⁵ I	
Total(F):			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹³¹ I	
Total(G):			

Under 10 CFR 20.2003, sewerage disposal is permissible if the material is readily soluble or dispersible biological material in water and the concentration is less than the following:

$$\frac{\sum {}^3\text{H}/8.22\text{E}8 \text{ ml}}{1\text{E}-2 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{14}\text{C}/8.22\text{E}8 \text{ ml}}{3\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{32}\text{P}/8.22\text{E}8 \text{ ml}}{9\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{33}\text{P}/8.22\text{E}8 \text{ ml}}{8\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{35}\text{S}/8.22\text{E}8 \text{ ml}}{1\text{E}-3 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{125}\text{I}/8.22\text{E}8 \text{ ml}}{2\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{131}\text{I}/8.22\text{E}8 \text{ ml}}{1\text{E}-5 \text{ } \mu\text{Ci/ml}} \leq 1$$

AND

$$\sum A/0.2\text{Ci} + \sum B/0.04\text{Ci} + \sum C/0.005\text{Ci} + \sum D/0.025\text{Ci} + \sum E/0.025\text{Ci} + \sum F/0.04\text{Ci} + \sum G/0.002\text{Ci} \leq 1$$

Where A, B, ...G are the monthly totals released to the sanitary sewer system in the Tables shown above.

ere, 8.22 E8 ml is the monthly average dilution from the facility, based on 7285 gpd for the pilot plant and an average of 10 gallons per occupant per day. Values based a letter to Uwchlan Township Manager Douglas Hanley from Richard H. Lusch, dated November 23, 1994, and Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Subpart C, Article I, Chapter 73.17, *Sewage Flows*, which uses the 10 gpd value for commercial buildings for sewerage flow.

0797

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 1 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³ H	
Total:			

*Reviewed
John DeKammit
7 Nov 97*

Date Performed	Description of Radioactivity	Radionuclide	Quantity
24 Oct 97	¹⁴ C-AZT 0.0003 MCi	¹⁴ C	0.0003 MCi
27 Oct 97	¹⁴ C-AZT 0.0003 MCi	¹⁴ C	0.0003 MCi
31 Oct 97	¹⁴ C-AZT 0.0003 MCi	¹⁴ C	0.0003 MCi
		¹⁴ C	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³⁵ S	
Total:			

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 2 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		125I	
Total(F):			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		131I	
Total(G):			

Under 10 CFR 20.2003, sewerage disposal is permissible if the material is readily soluble or dispersible biological material in water and the concentration is less than the following:

$$\frac{\sum {}^3\text{H}/8.22\text{E}8 \text{ ml}}{1\text{E}-2 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{14}\text{C}/8.22\text{E}8 \text{ ml}}{3\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{32}\text{P}/8.22\text{E}8 \text{ ml}}{9\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{33}\text{P}/8.22\text{E}8 \text{ ml}}{8\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{35}\text{S}/8.22\text{E}8 \text{ ml}}{1\text{E}-3 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{125}\text{I}/8.22\text{E}8 \text{ ml}}{2\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{131}\text{I}/8.22\text{E}8 \text{ ml}}{1\text{E}-5 \text{ } \mu\text{Ci/ml}} \leq 1$$

AND

$$\sum \text{A}/0.2\text{Ci} + \sum \text{B}/0.04\text{Ci} + \sum \text{C}/0.005\text{Ci} + \sum \text{D}/0.025\text{Ci} + \sum \text{E}/0.025\text{Ci} + \sum \text{F}/0.04\text{Ci} + \sum \text{G}/0.002\text{Ci} \leq 1$$

Where A, B, ...G are the monthly totals released to the sanitary sewer system in the Tables shown above.

ere, 8.22 E8 ml is the monthly average dilution from the facility, based on 7285 gpd for the pilot plant and an average of 10 gallons per occupant per day. Values based a letter to Uwchlan Township Manager Douglas Hanley from Richard H. Lusch, dated November 23, 1994, and Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Subpart C, Article 1, Chapter 73.17, Sewage Flows, which uses the 10 gpd value for commercial buildings for sewerage flow.

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 1 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
3 Nov 97		³ H	
5		³ H	
17		³ H	
		³ H	
Total:			

FE
ML

Date Performed	Description of Radioactivity	Radionuclide	Quantity
3 Nov 97	¹⁴ C - Glucose; 971014	¹⁴ C	0.0003 MCI
5 Nov 97	¹⁴ C - AZT; 971016	¹⁴ C	0.0003 MCI
17 Nov 97	¹⁴ C - Glucose; 971014	¹⁴ C	0.0003 MCI
19 Nov 97	¹⁴ C - AZT; 971016	¹⁴ C	0.0003 MCI
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³⁵ S	
Total:			

revised
Edward Kaminski
1 Dec 97

**RADIATION
SAFETY OFFICER**

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 2 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹²⁵ I	
Total(F):			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹³¹ I	
Total(G):			

Under 10 CFR 20.2003, sewerage disposal is permissible if the material is readily soluble or dispersible biological material in water and the concentration is less than the following:

$$\frac{\sum {}^3\text{H}/8.22\text{E}8 \text{ ml}}{1\text{E}-2 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{14}\text{C}/8.22\text{E}8 \text{ ml}}{3\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{32}\text{P}/8.22\text{E}8 \text{ ml}}{9\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{33}\text{P}/8.22\text{E}8 \text{ ml}}{8\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{35}\text{S}/8.22\text{E}8 \text{ ml}}{1\text{E}-3 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{125}\text{I}/8.22\text{E}8 \text{ ml}}{2\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{131}\text{I}/8.22\text{E}8 \text{ ml}}{1\text{E}-5 \text{ } \mu\text{Ci/ml}} \leq 1$$

AND

$$\sum \text{A}/0.2\text{Ci} + \sum \text{B}/0.04\text{Ci} + \sum \text{C}/0.005\text{Ci} + \sum \text{D}/0.025\text{Ci} + \sum \text{E}/0.025\text{Ci} + \sum \text{F}/0.04\text{Ci} + \sum \text{G}/0.002\text{Ci} \leq 1$$

Where A, B, ...G are the monthly totals released to the sanitary sewer system in the Tables shown above.

8.22 E8 ml is the monthly average dilution from the facility, based on 7285 gpd for the pilot plant and an average of 10 gallons per occupant per day. Values based on letter to Uwchlan Township Manager Douglas Hanley from Richard H. Lusch, dated November 23, 1994, and Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Subpart C, Article I, Chapter 73.17, *Sewage Flows*, which uses the 10 gpd value for commercial buildings for sewerage flow.

Feb-98

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 1 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
23 Feb.	³ H-DDI	³ H	0.0001 Mci
26 Feb	¹⁴ C-AZT	³ H	
		³ H	
		³ H	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
26 Feb	¹⁴ C-AZT	¹⁴ C	0.0001 Mci
		¹⁴ C	
		¹⁴ C	
		¹⁴ C	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³⁵ S	
Total:			

reviewed
Johanna Korman
4ma 98.

**RADIATION
SAFETY OFFICER**

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 2 of 2.

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹²⁵ I	
		¹³¹ I	
		¹³¹ I	
		¹³¹ I	
Total(F):			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹³¹ I	
Total(G):			

Under 10 CFR 20.2003, sewerage disposal is permissible if the material is readily soluble or dispersible biological material in water and the concentration is less than the following:

$$\frac{\sum {}^3\text{H}/8.22\text{E}8 \text{ ml}}{1\text{E}-2 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{14}\text{C}/8.22\text{E}8 \text{ ml}}{3\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{32}\text{P}/8.22\text{E}8 \text{ ml}}{9\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{33}\text{P}/8.22\text{E}8 \text{ ml}}{8\text{E}-4 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{35}\text{S}/8.22\text{E}8 \text{ ml}}{1\text{E}-3 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{125}\text{I}/8.22\text{E}8 \text{ ml}}{2\text{E}-5 \text{ } \mu\text{Ci/ml}} + \frac{\sum {}^{131}\text{I}/8.22\text{E}8 \text{ ml}}{1\text{E}-5 \text{ } \mu\text{Ci/ml}} \leq 1$$

AND

$$\sum A/0.2\text{Ci} + \sum B/0.04\text{Ci} + \sum C/0.005\text{Ci} + \sum D/0.025\text{Ci} + \sum E/0.025\text{Ci} + \sum F/0.04\text{Ci} + \sum G/0.002\text{Ci} \leq 1$$

Where A, B, ...G are the monthly totals released to the sanitary sewer system in the Tables shown above.

8.22 E8 ml is the monthly average dilution from the facility, based on 7285 gpd for the pilot plant and an average of 10 gallons per occupant per day. Values based on information provided to Uwchlan Township Manager Douglas Hanley from Richard H. Lusch, dated November 23, 1994, and Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Subpart C, Article I, Chapter 73.17, Sewage Flows, which uses the 10 gpd value for commercial buildings for sewerage flow.

August 98

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 1 of 2

Date Performed	Description of Radioactivity	Radionuclide	Quantity
2/14/98	³ H - d d I	³ H	0.0003 uCi
		³ H	
		³ H	
		³ H	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹⁴ C	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³² P	
Total:			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		³⁵ S	
Total:			

Reviewed
Federal U. Kammann
15 Sept 98

**RADIATION
SAFETY OFFICER**

MONTHLY SEWERAGE DISPOSAL LOG

Use this form if a radioactive disposal via sanitary sewer is performed. Use one section for each radionuclide. Page 2 of 2

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹²⁵ I	
Total(F):			

Date Performed	Description of Radioactivity	Radionuclide	Quantity
		¹³¹ I	
Total(G):			

Under 10 CFR 20.2003, sewerage disposal is permissible if the material is readily soluble or dispersible biological material in water and the concentration is less than the following:

$$\frac{\sum {}^3\text{H}/8.22\text{E}8 \text{ ml}}{1\text{E}-2 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{14}\text{C}/8.22\text{E}8 \text{ ml}}{3\text{E}-4 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{32}\text{P}/8.22\text{E}8 \text{ ml}}{9\text{E}-5 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{33}\text{P}/8.22\text{E}8 \text{ ml}}{8\text{E}-4 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{35}\text{S}/8.22\text{E}8 \text{ ml}}{1\text{E}-3 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{125}\text{I}/8.22\text{E}8 \text{ ml}}{2\text{E}-5 \text{ }\mu\text{Ci/ml}} + \frac{\sum {}^{131}\text{I}/8.22\text{E}8 \text{ ml}}{1\text{E}-5 \text{ }\mu\text{Ci/ml}} \leq 1$$

AND

$$\sum \text{A}/0.2\text{Ci} + \sum \text{B}/0.04\text{Ci} + \sum \text{C}/0.005\text{Ci} + \sum \text{D}/0.025\text{Ci} + \sum \text{E}/0.025\text{Ci} + \sum \text{F}/0.04\text{Ci} + \sum \text{G}/0.002\text{Ci} \leq 1$$

Where A, B, ...G are the monthly totals released to the sanitary sewer system in the Tables shown above.

8.22 E8 ml is the monthly average dilution from the facility, based on 7285 gpd for the pilot plant and an average of 10 gallons per occupant per day. Values based on letter to Uwchlan Township Manager Douglas Hanley from Richard H. Lusch, dated November 23, 1994, and Title 25, Rules and Regulations, Part 1, Department of Environmental Resources, Subpart C, Article I, Chapter 73.17, *Sewage Flows*, which uses the 10 gpd value for commercial buildings for sewerage flow.

West Pharmaceutical Services
NRC License Number 37-30229-01
Docket Number: 03033881
Control Number: 138463

ATTACHMENT 2

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFESTS

NRC FORM 541 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste										1. MANIFEST TOTALS NUMBER OF PACKAGES/ DISPOSAL CONTAINERS: 3 NET WASTE VOLUME (m3): 0.3369 NET WASTE WEIGHT (kg): 56.6990 SPECIAL NUCLEAR MATERIAL (grams): U-233: NP U-235: NP Pu: NP Total: NP ACTIVITY (MBq): ALL NUCLIDES: 1.2448E+02 TRITIUM: 1.0427E+01 C-14: 1.1405E+02 Tc-99: NP I-129: NP SOURCE (kg): NA						2. MANIFEST NUMBER 15402			
										3. PAGE 1 OF 1 PAGE(S)									
										4. SHIPPER NAME The West Company NA SHIPPER ID NUMBER									
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
										16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C									
5.	6.	7.	8.	9.	10.		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION							
CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	CONTAINER DESCRIPTION (See Note 1)	VOLUME (m3)	WASTE AND CONTAINER WEIGHT (kg)	SURFACE RADIATION LEVEL (μSv/hr) <input checked="" type="checkbox"/> (mSv/hr)	SURFACE CONTAMINATION (MBq/100 cm2) ALPHA BETA-GAMMA		WASTE DESCRIPTOR (See Note 2)	APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT							
54216/TWC	4	0.1161	22.2260	2.0000E-01	<1.6700E-06	<1.6700E-06	59-NON-HAZARDOUS SCINTILLATION VIALS	0.1161	NA	Non-Haz Scintillation Liquid/NP	NP	C-14 H-3	9.6200E-01 2.1127E-01		AU				
												Total	1.1733E+00						
54217/TWC	19 FIBERBOARD BOX	0.1104	18.1437	2.0000E-01	<1.6700E-06	<1.6700E-06	59-INCINERABLE TRASH	0.1104	NA	Lab Trash/NP	NP	C-14 H-3	7.5195E+01 6.8857E+00		AU				
												Total	8.2081E+01						
54218/TWC	19 FIBERBOARD BOX	0.1104	16.3293	2.0000E-01	<1.6700E-06	<1.6700E-06	59-INCINERABLE TRASH	0.1104	NA	Lab Trash/NP	NP	C-14 H-3	3.7892E+01 3.3300E+00		AU				
												Total	4.1222E+01						

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

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

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

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

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

Sorption	Solidification
60. Speedi Dri	64. Safe T Sorb
61. Celetom	65. Safe N Dri
62. Floor Dry/ Superfine	66. Florco
63. Hi Dri	67. Florco X
	68. Solid A Sorb
	69. Chemsil 30
	70. Chemsil 50
	71. Chemsil 3030
	72. Dicaperl HP200
	73. Dicaperl HP500
	74. Petroset
	75. Petroset II
	76. Aquaset
	77. Aquaset II
	89. Other. Describe in item 13, or additional page.
	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.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

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

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME		NET WASTE WEIGHT		1. MANIFEST TOTALS				2. MANIFEST NUMBER	
	SPECIAL NUCLEAR MATERIAL (grams)								15402-A	
	U-233	U-235	Pu	Total						
	NP	NP	NP	NP						
1	m3 ft3	0.1161 4.1000	kg lb	22.2260 49.0000					3. PAGE 1 OF 1 PAGE(S)	
					ACTIVITY				4. SHIPPER NAME	
		ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)		The West Company	
MBq	1.1733E+00		2.1127E-01		9.6200E-01	NP	NP	(kg)	SHIPMENT ID NUMBER	
mCi	3.1710E-02		5.7100E-03		2.6000E-02	NP	NP	(lbs)	NA	

DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C	
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m3) (ft3)	8. WASTE AND CONTAINER WEIGHT (kg) (lb)	9. SURFACE RADIATION LEVEL (mSv/hr) (mrem/hr)	10. SURFACE CONTAMINATION (MBq/100 cm2) (dpm/100cm2)		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION			
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. 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	MBq		mCi
54216/TWC	4	0.1161	22.2260	2.0000E-04	<1.6700E-06	<1.6700E-06	59-NON-HAZARDOUS SCINTILLATION VIALS			NA	NP	C-14	9.6200E-01	2.6000E-02	AU
		4.1000	49.0000	2.0000E-02	<1.0000E+02	<1.0000E+02		4.1000				H-3	2.1127E-01	5.7100E-03	
												<u>Subtotal</u>	<u>1.1733E+00</u>	<u>3.1710E-02</u>	
Shipment Totals												<u>Total</u>	<u>1.1733E+00</u>	<u>3.1710E-02</u>	
		0.1161	22.2260												
		4.1000	49.0000												

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

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

Note 1A: Process Requested

- | | |
|-----|----------------------|
| SC. | Supercompaction |
| B. | Bulk |
| I. | Inventory |
| BS. | Bulk Sort |
| DE. | Decon |
| DS. | Direct Survey |
| O. | Other (See Attached) |

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

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

NOTE 2A: End Disposition

- | | |
|-----|------------------------------|
| RG | Return to Generator |
| S | Storage |
| R | Recycle |
| REL | Release |
| O | Other (See Attached) |
| EOU | Envirocare, UT |
| WCS | Waste Control Specialist, TX |
| BAR | Barnwell, SC |
| BAR | Richland, WA |

Note 3: Solidification and Stabilization Media Codes. (Choose up to three which predominate by volume. For media meeting disposal site structural stability requirements, the numerical code must be followed by "-S." and the media vendor and brand name must also be identified in Item 13. Code 100=NONE REQUIRED)

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

NRC FORM 540 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER -- NAME AND FACILITY The West Company 101 Gordon Drive Lionville, PA 19341		SHIPPER I.D. NUMBER NA		7. NRC FORM 540 AND 540A NRC FORM 541 AND 541A NRC FORM 542 AND 542A ADDITIONAL INFORMATION		PAGE 1 OF 1 PAGE(S) 1 PAGE(S) None PAGE(S) None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 15402							
		USER PERMIT NUMBER NA		SHIPMENT NUMBER 15402		<input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR											
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-424-9300		CONTACT Thad Radanowski		TELEPHONE NUMBER (Include Area Code) (610)594-3149		9. CONSIGNEE - Name and Facility RSO, Inc. 5204 Minnick Road Laurel, MD 20707		CONTACT David Wellner TELEPHONE (Include Area Code) (301)953-2482		DATE 6-26-03							
ORGANIZATION Chemtec		6. CARRIER -- Name and Address RSO, Inc. 5204 Minnick Road Laurel, MD 20707		EPA I.D. NUMBER MDD-06-927-9669		SIGNATURE - <i>David Wellner</i> <small>Authorized consignee acknowledging waste receipt</small>		10. CERTIFICATION This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.									
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 3		SHIPPING DATE 06/26/2003		TELEPHONE (Include Area Code) (301)953-2482		DATE 6-26-03		AUTHORIZED SIGNATURE <i>David Wellner</i>							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number ==>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		EPA MANIFEST NUMBER		CONTACT David Wellner		TITLE Sr. Res Sci / RSO		DATE 26 Jun 03							
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	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Liquid Non-Haz Scintillation Liquid		C-14 H-3		1.1733E+00		NA		49 LBS; 4.1 FT3		54216	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid Lab Trash		C-14 H-3		8.2081E+01		NA		40 LBS; 3.9 FT3		54217	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid Lab Trash		C-14 H-3		4.1222E+01		NA		36 LBS; 3.9 FT3		54218	
FOR CONSIGNEE USE ONLY																	

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		5. SHIPPER -- NAME AND FACILITY The West Company 101 Gordon Drive Lionville, PA 19341			SHIPPER I.D. NUMBER NA <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR <input checked="" type="checkbox"/> GENERATOR TYPE (Specify) <input type="checkbox"/>		7. FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) FORM 541 AND 541A 1 PAGE(S) FORM 542 AND 542A None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 15402-A								
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-424-9300		SHIPMENT NUMBER RSO#664 NSSI#6			TELEPHONE NUMBER (Include Area Code) 610-594-3149		9. CONSIGNEE - Name and Facility NSSI, Inc. 5711 Etheridge Street Houston, TX 77087		CONTACT Kimberly Page TELEPHONE (Include Area Code) 713-641-0391 DATE 10-2-03								
ORGANIZATION Chemtrec		6. CARRIER -- Name and Address RSO, Inc. 5204 Minnick Road Laurel, MD 20707 Truck #: 01334 Trailer #:			EPA I.D. NUMBER MDD-06-927-9669		SIGNATURE -- Authorized consignee acknowledging waste receipt <i>[Signature]</i>		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.								
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1			SHIPPING DATE 09/26/2003		DATE 9-26-03		AUTHORIZED SIGNATURE <i>[Signature]</i>								
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number =====>		EPA MANIFEST NUMBER			CONTACT David Wellner		DATE 9-26-03		TITLE Manager RMS								
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	
Radioactive material, low specific activity, n.o.s., 7, UN2912		NA		NA		Liquid Non-Haz Scintillation Liquid		C-14 H-3		1.1733E+00 3.1710E-02		LSA-II		49 LBS; 4.1 FT3		54216	
FOR CONSIGNEE USE ONLY		20. This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.															

NRC FORM 541 (5-1998) U.S. NUCLEAR REGULATORY COMMISSION										1. MANIFEST TOTALS				2. MANIFEST NUMBER 14876	
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										SPECIAL NUCLEAR MATERIAL (grams)				3. PAGE 1 OF 2 PAGE(S)	
										NUMBER OF PACKAGES/DISPOSAL CONTAINERS	NET WASTE VOLUME (m3)	NET WASTE WEIGHT (kg)	U-233		
CONTAINER AND WASTE DESCRIPTION										ACTIVITY (MBq)				4. SHIPPER NAME West Pharmaceutical Services	
										ALL NUCLIDES	TRITIUM	C-14	Tc-99		
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste														SHIPPER ID NUMBER	
										1.4274E+01	6.7303E-01	1.3601E+01	NP		
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (µ Sv/hr) (mSv/hr)	10. SURFACE CONTAMINATION MBq/100 cm2 (ALPHA BETA-GAMMA)		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	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)		
52609/WPS	4	0.1161	45.3592	2.0000E-04	<1.6700E-06	<1.6700E-06	39	0.1161	NA	Paper,Plastic,Glass/NP		NP	C-14 1.1970E+00 H-3 2.5382E-01	AU	
													Total 1.4508E+00 MBq		
52610/WPS	4	0.1161	45.3592	2.0000E-04	<1.6700E-06	<1.6700E-06	39	0.1161	NA	Paper,Plastic,Glass/NP		NP	C-14 1.1359E-01 H-3 3.8850E-02	AU	
													Total 1.5244E-01 MBq		
52611/WPS	4	0.1161	45.3592	2.0000E-04	<1.6700E-06	<1.6700E-06	39	0.1161	NA	Paper,Plastic,Glass/NP		NP	C-14 8.4360E-01	AU	
													Total 8.4360E-01 MBq		

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

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

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

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

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

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

NRC FORM 541A (5-1998)		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										U.S. NUCLEAR REGULATORY COMMISSION		2. MANIFEST NUMBER 14876	
CONTAINER AND WASTE DESCRIPTION										3. PAGE 2 OF 2		PAGE(S)			
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER					16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m3)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL		10. SURFACE CONTAMINATION MBq/100 cm2		11. WASTE DESCRIPTION (See Note 2)	12. PHYSICAL DESCRIPTION		14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
				(µ Sv/hr)	(mSv/hr)	ALPHA	BETA-GAMMA		APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m3)	SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		
52612/WPS	4	0.1161	45.3592	2.0000E-04	<1.6700E-06	<1.6700E-06	39	0.1161	NA	Paper, Plastic, Glass/NP	NP	C-14 H-3	9.6174E+00 2.6270E-02	AU	
													Total 9.6437E+00 MBq		
52613/WPS	4	0.1161	56.6991	2.0000E-04	<1.6700E-06	<1.6700E-06	59-NON-HAZARDOUS SCINTILLATION VIAL	0.1161	NA	Non-Haz Scintillation Liquid/NP	NP	C-14 H-3	1.8297E+00 3.5409E-01	AU	
													Total 2.1838E+00 MBq		

NRC FORM 540 (5-1998)		U.S. NUCLEAR REGULATORY COMMISSION		5. SHIPPER - NAME AND FACILITY West Pharmaceutical Services 101 Gordon Drive Lionville PA 19341		SHIPPER I.D. NUMBER COLLECTOR PROCESSOR		7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) NRC FORM 541 AND 541A 2 PAGE(S) NRC FORM 542 AND 542A None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 14876							
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER				USER PERMIT NUMBER SHIPMENT NUMBER 14876		X GENERATOR TYPE (Specify) I		9. CONSIGNEE - Name and Facility Address RSO, Inc. 5204 Minnick Road Laurel MD 20707		CONTACT David Wellner TELEPHONE NUMBER (Include Area Code) (301)953-2482							
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-800-424-9300		ORGANIZATION CHEMTREC		CONTACT Thad Radzanowski TELEPHONE NUMBER (Include Area Code) (610)594-3149		EPA I.D. NUMBER MDD-06-927-9669 SHIPPING DATE 11/15/99		SIGNATURE - Authorized consignee acknowledging waste receipt		DATE							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST =====> 5		6. CARRIER - Name and Address RSO, INC. 5204 MINNICK RD PO BOX 1526 LAUREL MD 20707		CONTACT DAVID WELLNER TELEPHONE NUMBER (Include Area Code) 301-953-2482		DATE 11-15-99		AUTHORIZED SIGNATURE <i>David Wellner</i>		TITLE RSO		DATE 15 NOV 99			
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number =====>		EPA MANIFEST NUMBER		SIGNATURE - Authorized carrier acknowledging waste receipt <i>David Wellner</i>		DATE 11-15-99		AUTHORIZED SIGNATURE <i>David Wellner</i>		TITLE RSO		DATE 15 NOV 99					
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	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid /Paper,Plastic,Glass		C-14 H-3		1.4508E+00		NA		100. LBS; 4.1 FT3		62609	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid /Paper,Plastic,Glass		C-14 H-3		1.5244E-01		NA		100. LBS; 4.1 FT3		62610	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid /Paper,Plastic,Glass		C-14		8.4360E-01		NA		100. LBS; 4.1 FT3		62611	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Solid /Paper,Plastic,Glass		C-14 H-3		9.6437E+00		NA		100. LBS; 4.1 FT3		62612	
Radioactive material, excepted package-limited quantity of material, 7, UN2910		NA		NA		Liquid/Non-Haz Scintillation Liquid		C-14 H-3		2.1838E+00		NA		125. LBS; 4.1 FT3		62613	

FOR CONSIGNEE USE ONLY

For processing at GTSO and burial at Envirocare of Utah.