



National Institutes of Health
National Institute of
Environmental Health Sciences
P. O. Box 12233
Research Triangle Park, NC 27709
Website: <http://www.niehs.nih.gov>

November 4, 2013

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

Dr. 2

030-05596

REC-110713 110713

Dear Sirs,

Please amend license number 32-12358-01 to remove the sealed radioactive source listed as Item 6.H. New England Nuclear Corp. Model NER-570, 3.7 Gbq (100 mCi). This sealed calibration source was no longer being used so it was sent out as radioactive waste on June 28, 2007 to Bionomics, Inc. Attached is documentation of this waste shipment which shows final disposition of the material at the Chem-Nuclear Disposal Site in Barnwell, SC.

Thank you for your assistance in this matter.

William P. Fitzgerald Jr., MSPH, CHP
Radiation Safety Officer

582473
NMSS/RGNI MATERIALS-002

NRC FORM 641 (6-2004) 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 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">NUMBER OF PACKAGES/ DISPOSAL CONTAINERS</th> <th rowspan="2">NET WASTE VOLUME (m³)</th> <th rowspan="2">NET WASTE WEIGHT (kg)</th> <th colspan="3">SPECIAL NUCLEAR MATERIAL (grams)</th> <th rowspan="2">TOTAL</th> </tr> <tr> <th>U-233</th> <th>U-235</th> <th>Pu</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">0.19</td> <td style="text-align: center;">27.2</td> <td style="text-align: center;">NP</td> <td style="text-align: center;">NP</td> <td style="text-align: center;">NP</td> <td style="text-align: center;">NP</td> </tr> <tr> <th colspan="3">ALL NUCLIDES</th> <th>TRITIUM</th> <th>C-14</th> <th>Tc-99</th> <th>I-129</th> </tr> <tr> <td colspan="3" style="text-align: center;">2409.366926</td> <td style="text-align: center;">NP</td> <td style="text-align: center;">NP</td> <td style="text-align: center;">3.7E-03</td> <td style="text-align: center;">NP</td> </tr> <tr> <td colspan="6"></td> <td style="text-align: center;">9.09E-04</td> </tr> </table>						NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m ³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams)			TOTAL	U-233	U-235	Pu	1	0.19	27.2	NP	NP	NP	NP	ALL NUCLIDES			TRITIUM	C-14	Tc-99	I-129	2409.366926			NP	NP	3.7E-03	NP							9.09E-04	2. MANIFEST NUMBER <div style="font-size: 24pt; text-align: center;">606078</div>	
NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m ³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams)			TOTAL																																													
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						3. PAGE 1 OF 1 PAGE(S)																																													
						4. SHIPPER NAME N.L.E.H.S.																																													
						5. SHIPPER I.D. NUMBER																																													
DISPOSAL CONTAINER DESCRIPTION						WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER																																													
CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	CONTAINER DESCRIPTION (See Note 1)	VOLUME (m ³)	WASTE AND CONTAINER WEIGHT (kg)	SURFACE RADIATION LEVEL (μSv/hr) <input type="checkbox"/> (mSv/hr)	SURFACE CONTAMINATION MBq/100cm ²		PHYSICAL DESCRIPTION			CHEMICAL DESCRIPTION	WEIGHT % CHELATING AGENT (if > 0.1%)	RADIOLOGICAL DESCRIPTION	WASTE CLASSIFICATION AS-Class A Stable All-Class A Unstable B-Class C-Class C																																						
					ALPHA	BETA-GAMMA	WASTE DESCRIPTOR (See Note 2)	APPROXIMATE WASTE VOLUME(S) IN CONTAINER	SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)																																										
NI-1	4	0.019	27.2	0.0002	33E-7	2.16E-5	36	>95%	100	OXIDES/NP	NA	Sr-90 = 4.0081 Cs-137 = 2405.314352 Tc-99 = 7.4E-05 Th-232 = 3.7E-03 [9.09E-04 kg] Am-241 = 3.7E-03 Ra-226 = 0.037 TOTAL = 2409.366926																																							

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 Crates	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	18. Other. Describe in item 5 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/Glue/Resin/Concentrates
21. Incinerator Ash	30. Carbon 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	50. 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.

Sorpton			Solidification		
60. Speedi-Dri	64. Safe-T-Sorb	18. Chemical 33	74. Petroset	89. Other. Describe in item 13 or additional page	90. Cement
61. Celatum	65. Safe-N-Dri	70. Chemical 50	75. Petroset II		91. Concrete
62. Floor-Dry	66. Florco	71. Chemical 3000	76. Acusset		92. Encapsulation
	67. Florco X	72. Decapet HP200	77. Acusset II		93. Drumen
63. -In	68. Nolo-A-Sorb	73. Decapet HP500			94. Vinyl Chloride
					95. Other. Describe in item 13 or additional page
					96. Other. Describe in item 13 or additional page
					97. Drumen
					98. Vinyl Chloride
					100. None Required



P.O. Box 817 — Kingston, TN 37763 — (865) 220-8501

January 04, 2008

Mr. Paul Johnson
N.I.E.H.S.
Health & Safety Branch
P.O. Box 12233
Research Triangle Park, NC 27709

RE: Barnwell Disposal Certificate

Dear Mr. Paul Johnson:

This is to certify that the following radioactive material picked up at your facility on June 28, 2007, on manifest # 60607B, has been disposed of at the Chem-Nuclear Disposal Site in Barnwell, SC.

Please reference the following table for detailed disposal information of shipment.

Barnwell Manifest Number	Barnwell Container Number	Disposal Volume (ft ³)	Barnwell Shipment Number	Barnwell Disposal Date
1207-13537	B307	0.30	1207-13537	12/20/2007

If you have any questions please feel free to contact me at (865) 220-8501.

Thank you,

Rene Guy
Administrative Manager

Cc: File

This is to acknowledge the receipt of your letter application dated

11/04/2013, and to inform you that the initial processing which includes an administrative review has been performed.

32-12358-01 (Amendment)

There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 582473.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader