



November 21, 2005

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2005 NOV 23 PM 1:12

US Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA. 19406

29-02234-02  
03002448

Dear Sir:

We wish to notify the NRC of the removal of Cs-137 therapy and the Sr-90 Eye applicator from our NRC license. The model numbers of these sources are 3M Models 6D6C-CA, 6H6E and Amersham Model SIA.20. These items were transferred to license 31-17528-01 for disposal. A copy of the manifest of this transfer is enclosed. We have also returned all Novoste Intravascular Brachytherapy sources to the manufacturer. Wipe tests of the previous radioactive material storage areas were performed. No areas of contamination were noted. Rooms where these isotopes were stored remain controlled areas of use. These rooms were not decommissioned. Please remove the following items from our NRC license:

1. Sealed sources Cs-137(3M Models 6D6C-CA and 6H6E).
2. Strontium 90 (Amersham Model SIA.20)
3. Strontium/Yttrium 90 (BEBIG Model Sr0.303 or AEA Technology SICW Series (SICW.1 and SICW.2)

Thank you for your prompt attention to this request.

Sincerely,

Tim Foley

Vice President, Service Line Development

Jersey Shore University Medical Center

T. 732.775.5500  
Meridian Health Line 1.800.560.9990 · www.meridianhealth.com  
1945 State Route 33 · P.O. Box 397 · Neptune, NJ 07754-0397

138234

*radiac*

<b>FORM 540</b> <b>RADIAC RESEARCH CORP.</b> <b>UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER</b>		<b>5. SHIPPER - NAME AND FACILITY</b> JERSEY SHORE UNIVERSITY MEDICAL CENTER 1945 STATE ROUTE 33 NEPTUNE, NJ 07764		<b>SHIPMENT I.D. NUMBER</b> NA <b>COLLECTOR</b> <b>PROCESSOR</b>		<b>7. FORM 540 AND 540A</b> PAGE 1 OF 1 PAGE(S) <b>FORM 541 AND 541A</b> 1 PAGE(S) <b>FORM 542 AND 542A</b> None PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		<b>8. MANIFEST NUMBER</b> (Use this number on all continuation pages) 76448-R									
<b>1. EMERGENCY TELEPHONE NUMBER</b> (Include Area Code) (800) 424-8300		<b>Permit #</b> PENDING		<b>SHIPMENT NUMBER</b> NA		<b>X GENERATOR TYPE (Specify) M</b>		<b>9. CONSIGNEE - Name and Facility Address</b> <b>RADIAC RESEARCH CORP.</b> 261 KENT AVENUE BROOKLYN, NY 11211									
<b>ORGANIZATION</b> CHEMTRAC		<b>CONTACT</b> PEGGY WEIGLEY		<b>TELEPHONE NUMBER (Include Area Code)</b> 732.778.4137		<b>CONTACT</b> JOSEPH SPEKTOR <b>TELEPHONE NUMBER (Include Area Code)</b> 718 963 - 2233		<b>DATE</b> 7-20-05									
<b>2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<b>3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST</b> =====> 1		<b>6. CARRIER - Name and Address</b> RADIAC RESEARCH CORP. 261 KENT AVE. BROOKLYN, NY 11211 Truck # <i>AD2213</i> Trailer # <i>N/A</i>		<b>EPA I.D. NUMBER</b> NYD049178298		<b>SIGNATURE - Authorized consignee acknowledging waste receipt</b> <i>Joseph Spektor</i>									
<b>4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?</b> If "Yes," provide Manifest Number =====>		<b>EPA MANIFEST NUMBER</b> NA		<b>CONTACT</b> ARTHUR GREEN <b>SIGNATURE - Authorized carrier acknowledging waste receipt</b> <i>Arthur Green</i>		<b>SHIPPING DATE</b> 7/19/05		<b>10. CERTIFICATION</b> This is to certify that the herein-named materials were 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.									
<b>11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION</b> (Including proper shipping name, hazard class, UN ID number, and any additional information)		<b>12. DOT LABEL "RADIOACTIVE"</b>		<b>13. TRANSPORT INDEX</b>		<b>14. PHYSICAL AND CHEMICAL FORM</b>		<b>15. INDIVIDUAL RADIONUCLIDES</b>		<b>16. TOTAL PACKAGE ACTIVITY</b> MBq		<b>17. LSA/SCO CLASS</b>		<b>18. TOTAL WEIGHT OR VOLUME</b> (Use appropriate units)		<b>19. IDENTIFICATION NUMBER OF PACKAGE</b>	
Radioactive material, Type A package, 7, UN2915 / ENCAPSULATED SOURCES		Yellow II		0.7		Solid OXIDE		Ba-133 Cs-137 Sr-90		1.9132E+04 5.1709E+02 <i>SRT 2 IS</i>		NA		250. LBS; 1.36 FT3		76448-01	
<b>FOR CONSIGNEE USE ONLY</b>										<b>20. Certification is hereby made to Radiac Research Corp., that this shipment of low-level radioactive waste is accurately described in the above manifest. The waste described above has been prepared in accordance with current "RADIAC Acceptance Criteria", federal and state regulations, including those of the NRC, DOT, EPA, and applicable agreement state agencies. Unless specifically included or excluded in writing, the shipper authorizes RADIAC to select the "best authorized treatment and / or disposal method".</b>  Date <u>7-19-05</u> Signature <u>Peggy Weigley</u> Telephone <u>(732) 776-4137</u>							

<b>FORM 541</b> <b>RADIAC RESEARCH CORP.</b>  <b>UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST</b>  <b>CONTAINER AND WASTE DESCRIPTION</b>  Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste	<b>1. MANIFEST TOTALS</b>						<b>2. MANIFEST NUMBER</b> 76448-R			
	SPECIAL NUCLEAR MATERIAL (g/m <sup>3</sup> m)									
			U-233		U-235		Pu		TOTAL	
	1		NP		NP		NP		NP	
			U-233		U-235		Pu		TOTAL	
<b>ACTIVITY</b>						<b>SOURCE</b>				
		C-14		Tc-99		I-129				
MBq		NP		NP		NP		(kge) NA		
mCi		NP		NP		NP		(lbs) NA		
						<b>SHIPMENT ID NUMBER</b>		NA		
						<b>3. PAGE 1 OF 1 PAGE(S)</b>				
						<b>4. SHIPPER NAME</b>		JERSEY SHORE UNIVERSITY M		

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	
6. CONTAINER IDENTIFICATION NUMBER / GENERATOR ID NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REQUESTED (See Note 1A) BURIAL/DISPOSITION (See Note 2A)	7. VOLUME (m <sup>3</sup> ) (13)	8. WASTE AND CONTAINER WEIGHT (kg) (16)	9. SURFACE RADIATION LEVEL (mSv/hr) (17)	10. SURFACE CONTAMINATION (MBq/100 cm <sup>2</sup> ) (18)		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m <sup>3</sup> ) (19)		13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		
					ALPHA	BETA-GAMMA		WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR TOTAL ACTIVITY AND RADIONUCLIDE PERCENT						
76448-01/MHC-JSUNC	4 B	0.0385	113.3981	1.0000E-01	<3.3400E-08	<3.3400E-03	36	0.0385	1.3600	91 S THE GUNKRETE CO. / GUNKRETE	OXIDE/NP	NP	Ba-133	9.5090E+00	2.5700E-01
		1.3600	250.0000	1.0000E+01	<2.000E+02	<2.000E+03							Ca-137	1.7987E+04	4.8614E+02
													Sr-90	1.1396E+03	3.0800E+01
													Subtotal	1.9136E+04	5.1720E+02
													Total	1.9136E+04	5.1720E+02
Shipment Totals		0.0385	113.3981											1.9136E+04	5.1720E+02
		1.3600	250.0000												

**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	14. Other Describe in item 8 or additional page.
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

**Note 1A: Process Requested**

C. Compaction
SR. Steam Reforming
DI. Direct Incineration
SI. Sort & Incinerate
D. Dacron
G. Green to Clean
M. Metal Melt
T. Trans-Ship
U. Other Describe in item 11, or additional page.
OI. Oil for incineration
O. Other (describe)

**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. Compactable 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 carcasses)
25. Aqueous Liquid	34. Organic Liquid (except oil)	43. Activated Material
26. Filter Media	35. Glassware or Labware	44. Other Describe in item 11, or additional page.
27. Mechanical Filter	36. Sealed Source/Device	
28. In PA or State Hazardous	37. Paint or mixing	

**Note 2A: Burial/Disposition Site**

B. Barnwell Waste Management Facility
E. Envirocare
R. Richland, WA
PR. Process and Return
U. Urner

**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.)

90. Cement	94. Vinyl Ester Styrene
91. Concrete (encapsulation)	96. Other Describe in item 13, or additional page.
92. Other	
93. Other	
95. Other	
99. Vinyl Chloride	100. None Required.

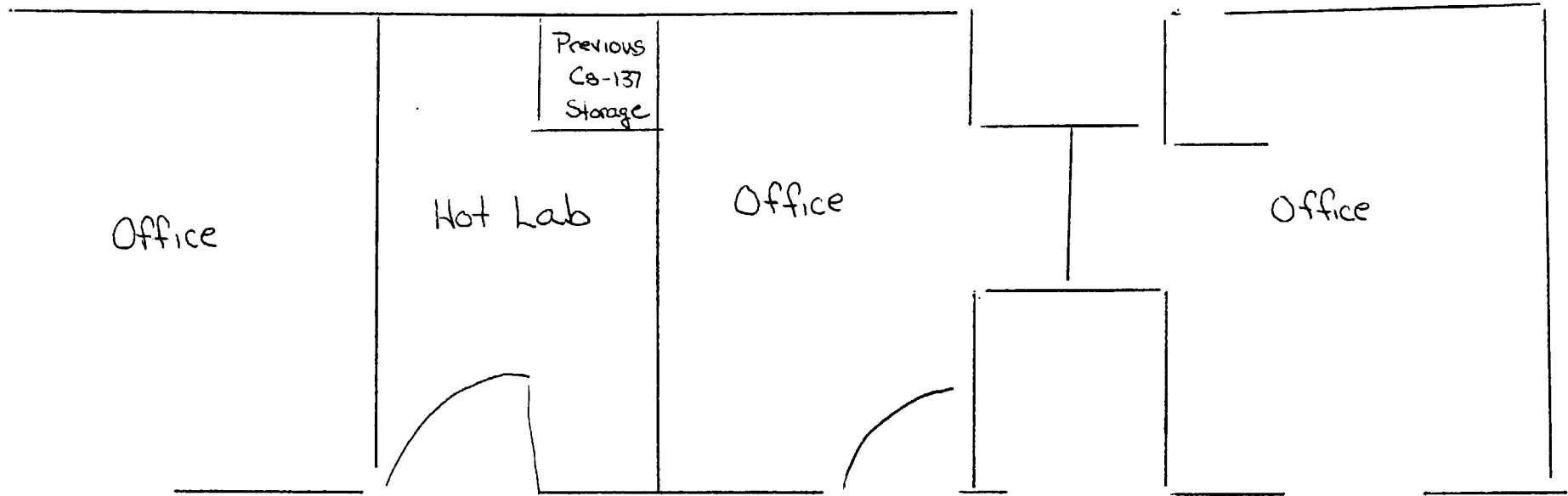
Cs-137 Storage Area  
Tower 2  
Nuclear Medicine

Cs-137 Standard  
60,340 cpm  
89.48 nCi 8/1/03  
85.44 nCi 8/1/05  
Bkgd 230 cpm  
Capintec CapRac Model 001419  
Efficiency 30% (Conservatively)  
Ludlum 192109 GM 0.02 mR/hr Bkgd

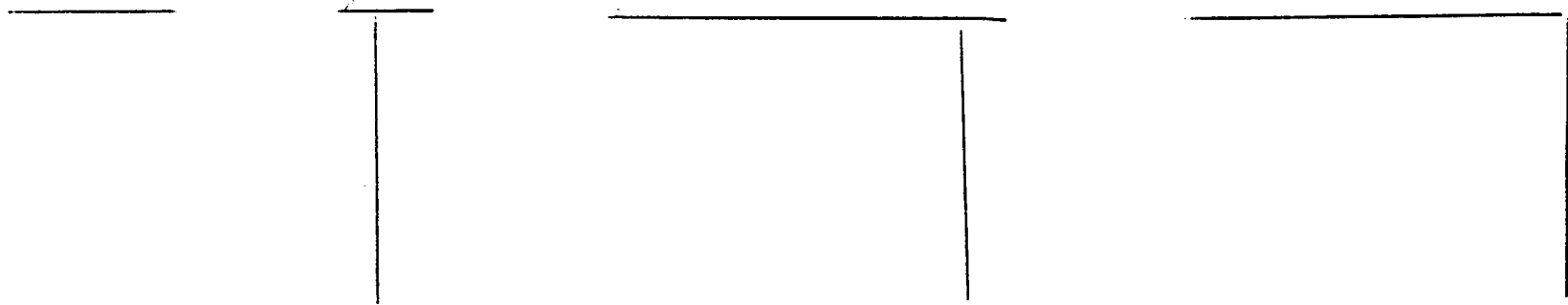
Area	Net cpm	dpm	Survey mR/hr
Source Carrier	0	0	0.03
Outside L Block	50	150	0.03
Inside L Block	44	132	0.02
Safe Tube Side	35	105	0.03
Safe Heyman Side	2	60	0.02
Outside Safe	0	0	0.02

LLD =  $4.66 \sqrt{\text{Bkd}} = 70$  net dpm  
MDA =  $70(3.14 \text{ dpm/cpm})$   
= 220 net dpm

Lynn DiPaola, M.S.  
8/1/05



Tower Building  
2nd Floor  
Nuclear Medicine  
ISUMC



Novoste Intravascular Brachytherapy  
 Storage Area  
 Wipe Test

Ludlum 4 164764  
 Calibrated 3/25/05  
 Nuclear Instrument Company  
 Sr-90 Efficiency @1cm 23.3%  
 Bkgd 0.02mR/hr

	Gross	Net	dpm	Survey mR/hr
Bkgd	275	----	-----	0.02
Shelf	250	----	-----	0.02
Shelf	200	----	-----	0.02
Sides	250	----	-----	0.02
Door	300	25	125	0.02

$$LLD = 4.66 \sqrt{\text{Bkgd}} = 87 \text{ net cpm}$$

$$MDA = 87(3.14 \text{dpm/cpm})$$

$$= 273 \text{ net dpm}$$

Lynn DiPaola, M.S.  
 10/28/05

ECHO -  
4064

EXISTING  
MECH. ROOM

SOILED

PREP  
4067

4064

E405

4071

4065

4067

4071

3'-5"

11'-11"

HALL

ISUMC BI

Ackerman's  
Nuclear Cardiology  
Hot Lab Area - Previous  
IVB Storage

4058

4057

4056

4052E

NUC. MED. #2  
4057

4057A

Nuclear  
STRESS #2  
4056

Injection  
4053

1/16" LEAD LINING

5'-0"

3'-0"

office

4055a

4055

4054E

1/16" LEAD LINING

793 -  
8194

12'-0"

HOT LAB  
4055

NUC. MED. #1  
4054

Previous IVB Storage

N