



TELECOPY TRANSMITTAL

DATE: 10/15/08

TO: Toye Simmons

Fax Number: 630-515-1078

FROM: Dawn Edwards

RE: Mercy Amendment  
Control # 317428

COMMENTS:

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This transmittal consists of 8 pages (including transmittal cover sheet). Please contact me if you have any questions or problems with this transmittal.

2309 Shelby Avenue  
Ann Arbor, MI 48103  
(734) 662-9224 Fax  
(734) 662-3197



70 E. 91<sup>st</sup> Street, Suite 106  
Indianapolis, IN 46240  
(317) 581-1931 Fax  
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1780 E. Logan Avenue  
Salt Lake City, UT 84108  
(801) 467-8774 Office & Fax



N7375 Crystal Ridge Drive  
Beaver Dam, WI 53916  
(920) 885-9872 Fax  
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**Medical Physics Consultants, Inc.**

**Sealed Source Leak Test**

Facility: Hackley Hospital

Date: 05/14/08

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Brachy	12.68 mCi	08/20/85	Safe	6500	1086
Cs-137	Brachy	12.78 mCi	08/20/85	Safe	6500	1082
Cs-137	Brachy	12.68 mCi	08/20/85	Safe	6500	1075
Cs-137	Brachy	12.68 mCi	08/20/85	Safe	6500	1046
Cs-137	Brachy	12.68 mCi	08/20/85	Safe	6500	1048
Cs-137	Brachy	12.68 mCi	08/20/85	Safe	6500	1060
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5122
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5125
Cs-137	Brachy	25.82 mCi	08/20/85	Safe	6501	5126
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5141
Cs-137	Brachy	25.31 mCi	08/20/85	Safe	6501	5133
Cs-137	Brachy	25.82 mCi	08/20/85	Safe	6501	5132
Cs-137	Brachy	25.82 mCi	08/20/85	Safe	6501	5167
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5168
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5171
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5188
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5181
Cs-137	Brachy	25.56 mCi	08/20/85	Safe	6501	5178
Cs-137	Brachy	39.23 mCi	08/20/85	Safe	6502	3583
Cs-137	Brachy	39.48 mCi	08/20/85	Safe	6502	3585
Cs-137	Brachy	39.23 mCi	08/20/85	Safe	6502	3588
Cs-137	Brachy	39.48 mCi	08/20/85	Safe	6502	3601
Cs-137	Brachy	39.48 mCi	08/20/85	Safe	6502	3595
Cs-137	Brachy	38.98 mCi	08/20/85	Safe	6502	3593
Cs-137	Brachy	38.98 mCi	08/20/85	Safe	6502	3604
Cs-137	Brachy	39.23 mCi	08/20/85	Safe	6502	3610
Cs-137	Brachy	38.98 mCi	08/20/85	Safe	6502	3611
Cs-137	Brachy	38.98 mCi	08/20/85	Safe	6502	3639
Cs-137	Brachy	39.23 mCi	08/20/85	Safe	6502	3638
Cs-137	Brachy	38.98 mCi	08/20/85	Safe	6502	3618
Cs-137	Brachy	53.66 mCi	08/20/85	Safe	6503	2583
Cs-137	Brachy	53.91 mCi	08/20/85	Safe	6503	2556
Cs-137	Brachy	53.66 mCi	08/20/85	Safe	6503	2540
Cs-137	Brachy	53.66 mCi	08/20/85	Safe	6503	2584
Cs-137	Brachy	65.55 mCi	08/20/85	Safe	6504	1048
Cs-137	Brachy	65.81 mCi	08/20/85	Safe	6504	1074

**Medical Physics Consultants, Inc.**

Sr-90	Brachy	55 mCi	07/21/83	Source Rm 0417 ML	25J274
Sr-90	Brachy	100 mCi	12/01/64	Source Rm	1045
Am-241	rod				241

Comment: The sources listed above were leak tested using a dry wipe technique and were found to have less than 0.005  $\mu\text{Ci}$  removable activity. The following Minimum Detectable Activities are based upon a background at the indicated value. Background was at or below these levels when the above tests were completed.

Well Counter: Captus 3000

<u>Nuclide</u>	<u>MDA</u>	<u>Background</u>
Cs-137	$2.0 \times 10^{-4} \mu\text{Ci}$	145 counts/1 min
Ba-133	$8.8 \times 10^{-5} \mu\text{Ci}$	204 counts/1 min
Co-57	$1.7 \times 10^{-5} \mu\text{Ci}$	53 counts/1 min

Tested by: Dawn M Edwards, MS Date: 5/14/2008



October 14, 2008

Ms. Dawn Edwards  
Medical Physics Consultants  
2309 Shelby Avenue  
Ann Arbor, MI 48103

Dear Ms. Edwards,

Attached please find copies of our shipping manifest to ChemNuclear, Barnwell, SC, that details the sealed sources from Hackley Hospital. I have also attached copies of the acceptance and disposal letters from them. I have circle all of the numbers that related the ChemNuclear letters back to the original generator.

If you should have any further questions, please feel free to contact me.

Sincerely,



Len Warbiany  
Facility Manager

**SOLUTIONS**

May 30, 2008

ATTN: LEN WARBIANY  
ADCO SERVICES, INC.  
17650 DUVAN DRIVE  
TINLEY PARK, IL 60477

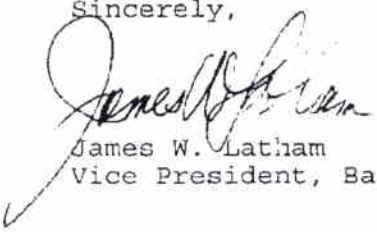
Reference: Radioactive Waste Shipment - Shipment ID Number 13708

Dear LEN WARBIANY,

As required by 10 CFR Part 20, South Carolina Title A (3.55 3.4.1), and Barnwell Waste Management Facility Disposal Criteria (S20-AD-010), this letter is notification that the shipment referenced above has been disposed of at the Barnwell Waste Management Facility. This waste meets all the Barnwell Waste Management Facility criteria for acceptance and was disposed of in accordance with the Barnwell Site's License.

If you have any questions regarding this letter, please contact the Prior Notification Plan Department at (803) 541-5017.

Sincerely,



James W. Latham  
Vice President, Barnwell Operations

<b>FORM 540</b> <b>BARNWELL WASTE MANAGEMENT FACILITY</b> <b>UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER</b>		<b>5. SHIPPER - NAME AND FACILITY</b> ADGO SERVICES, INC 17630 DUNAWAY DRIVE TINLEY PARK, IL 60477		<b>SHIPPER ID NUMBER</b> 0508-13704 <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR		FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) FORM 541 AND 541A 6 PAGE(S) FORM 542 AND 542A 4 PAGE(S) ADDITIONAL INFORMATION None PAGE(S)		<b>8. MANIFEST NUMBER</b> (Use this number on all continuation pages) 30-0629									
<b>1. EMERGENCY TELEPHONE NUMBER</b> (Include Area Code) 1-800-635-6053		<b>5. C. TRANSPORT PERMIT</b> 0173-12-06-X		<b>SHIPMENT NUMBER</b> 30-0029		<input checked="" type="checkbox"/> <b>GENERATOR TYPE</b> (Specify) CO		<b>7. CONSIGNEE - Name and Facility</b> Barnwell Waste Management Facility Operated By Chem Nuclear Systems 740 Osborne Road Barnwell, SC 29812									
<b>ORGANIZATION</b> INFOTRAC		<b>CONTACT</b> LEN WARBANY		<b>TELEPHONE NUMBER</b> (Include Area Code) 708-429-1880		<b>SIGNATURE</b> (Authorized consignee acknowledging waste receipt)		<b>CONTACT LICENSING DEPARTMENT</b> TELEPHONE (Include Area Code) 803-259-1781									
<b>2. IS THIS AN "EXCLUSIVE USE" SHIPMENT?</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<b>3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST</b> 2		<b>6. CARRIER - Name and Address</b> ADCOM EXPRESS, INC 17860 DUNAWAY DRIVE TINLEY PARK, IL 60477		<b>EPA ID NUMBER</b> ILD 047267364		<b>10. CERTIFICATION</b> 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. The shipper 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>4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT?</b> If "Yes," provide Manifest Number: _____		<b>EPA MANIFEST NUMBER</b> NONE REQUIRED		<b>CONTACT:</b> BOB BASSETT		<b>SHIPPING DATE</b> 05/28/2008		<b>AUTHOR ZEC SIGNATURE</b>									
<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 mCi		<b>17. ICA/SCO CLASS</b>		<b>18. TOTAL WEIGHT OR VOLUME</b> (Use appropriate units)		<b>19. IDENTIFICATION NUMBER OF PACKAGE</b>	
RQ, Radioactive material, Type A package, 7, UN 2915 (Cs137, Sr90) (Solid Elemental / Encapsulated Sealed Sources)		Yellow III		4.0		SOLID SEALED SOURCES		Ac-226 Am-241 Ba-133 Bi-210 B-214 Cd-109 Co-57 Co-60 Cs-137 Eu-154 Fe-55 Ga-68 H-3 I-131 Kr-85 Mn-54 Na-22 Ni-63 Pb-210 Ra-226 Se-75 Sr-90 Tl-204 Y-88 Zn-65 Zr-88		1.1997E+05 (3.2424E+03)		NA		1780 LBS; 7.5 FT3		50-00155	
RQ, Radioactive material, Type A package, 7, UN 2916 (Cs137, Sr90) (Solid Elemental / Encapsulated Sealed Sources)		Yellow III		10.0		SOLID SEALED SOURCES		Ba-133 Cd-109 Co-57 Co-60 Cs-137 Eu-152 Gd-153 H-3 Mn-54 Na-22 Ni-63 Pm-147 Sr-90 Tl-204		1.8588E+05 (5.0507E+03)		NA		1218 LBS; 7.5 FT3		50-00157	
<b>FOR CONSIGNEE USE ONLY</b>				<b>20. Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission as an Agreement State regulatory agency and has been inspected in accordance with the requirements of South Carolina Radioactive Material License 1-0-057 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules, and regulations.</b>  Date _____ Signature _____ Title and Organization _____ Telephone No. ( ) _____													

FORM 540 (08-03)

FORM 541A

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

BARNWELL WASTE MANAGEMENT FACILITY

2 MANIFEST NUMBER  
30-0029

3 PAGE 4 OF 6 PAGE(S)

CONTAINER AND WASTE DESCRIPTION (CONTINUATION)

DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER								16 WASTE CLASSIFICATION AS-Class A Stable All-Class A U-Class B C-Class C		
A CONTAINER IDENTIFICATION NUMBER/SIC TRANSPORT PERMIT NUMBER	B CONTAINER DESCRIPTION (See Note 1A)	7 VOLUME (m <sup>3</sup> )	8 WASTE AND CONTAINER WEIGHT (kg)	9 SURFACE RADIATION LEVEL (µSv/h)	10 SURFACE CONTAMINATION (dpm/100cm <sup>2</sup> )		11 PHYSICAL DESCRIPTION			12 CHEMICAL DESCRIPTION		15 RADIOLOGICAL DESCRIPTION			
					ALPHA	BETA-GAMMA	11 WASTE DESCRIPTION (See Note 2A)	12 APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m <sup>3</sup> )	13 SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3A)	14 CHEMICAL FORM/ CHELATING AGENT	WEIGHT (g)	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			
												RADIONUCLIDES			
												Bq	Bq	mC	C
50-001570173-1205-X IL		0.2124	552.4755	1.7000E+00	0.0000E+00	0.0000E+00									
		7.5200	1218.0000	1.7000E+02	0.0000E+00	0.0000E+00									
15526-12-02 Y IL							36-H	0.0097	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	Ba-133 Cs-137 Gd-153	7.3925E-01 1.4540E-02 5.5500E-01	1.9980E-02 1.4540E-03 1.5000E-02	
								0.3410				Subtotal	1.3481E+00	3.4434E-02	
75504-17-08 Y PA							36-H	0.0193	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	H-3 Ni-63 Pm-147 Tl-204	6.2530E+04 9.5164E+03 6.5500E+00 7.4006E+00	1.6900E+03 2.6720E+02 1.5000E-01 2.8000E-01	
								0.6820				Subtotal	7.2055E+04	1.9476E+03	
75621-21-08 Y MI							36-H	0.0097	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	Ba-133 Cd-109 Co-60 Cs-137 Eu-152	1.2025E-02 5.8098E-02 2.1142E+00 4.2905E+01 1.8509E-02	3.2500E-04 1.5700E-03 5.7140E-02 1.1596E+00 5.0000E-04	
								0.3410				Mn-54 Na-22 Sr-90 Subtotal	7.5116E-03 4.9584E-03 2.3318E-04 4.5121E+01	2.9300E-04 1.3400E-04 6.3000E-06 1.2195E+00	
75628-21-08 Y MI							36-H	0.0193	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	Cs-137 Eu-152 Sr-90	2.6762E+04 1.8509E-01 6.7860E+03	8.9600E+02 6.9000E+03 1.5500E+02	
								0.6820				Subtotal	3.4487E+04	8.8101E+02	
75318-12-08 Y IL							36-H	0.0193	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	Ba-133 Cs-137 Sr-90	4.4770E+01 1.7553E+04 1.7443E+02	1.2100E+00 4.7441E+02 4.7143E+00	
								0.6820				Subtotal	1.7772E+04	4.8033E+02	
75527-12-08 Y IL							36-H	0.0097	91-S WILLE BROS. - 6 BAG MIX	SEALED SOURCES/NA	0.00	Cs-137	2.1295E+04	5.7564E+02	
								0.3410				Subtotal	2.1295E+04	5.7564E+02	

FORM 541A (06-03)

FORM 542A		UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										BARNWELL WASTE MANAGEMENT FACILITY		2. MANIFEST NUMBER 39-0029			
MANIFEST INDEX AND REGIONAL COMPACT TABULATION (CONTINUATION)										3. PAGE 2 OF 4 PAGE(S)							
4. SC TRANSPORT PERMIT NUMBER	5. GENERATOR NAME AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	6A. WASTE DESCRIPTION (NDA/FACILITY/RE)	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (r3) (r3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING CUMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL									
								A. SOURCE MATERIAL (r9) (r)		B. SNM (r)	C. ACTIVITY (r10Q) (r10C)		D. VOLUME (r12) (r3)		E. WEIGHT (r)	F. MAXIMUM PACKAGE RADIATION LEVEL (mrem/yr)	
5473-21-08 Y 38	CHILDRENS HOSPITAL OF MICHIGAN 908-050	3901 BEAUBEN DETROIT, MI 48201	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	7.4192E-03	3.0133E+01	0.0112	1.3950	67.3500	0.0000E+00	
5420-24-08 Y 35	DIAGNOSTIC HEALTH SERVICES 908-928 816-873-0284	3705 MAC KENZIE SQDAD STE 101 ST. LOUIS, MO 63123	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	5.5500E-01	1.5000E-01	0.0112	1.3950	67.3500	0.0000E+00	
5510-22-08 Y 35	FARVIEW SOUTHDALE HOSPITAL 922-824-3199	1101 FRANCE AVENUE SOUTH EDNA, MN 56433	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	5.3707E-03	1.5055E+01	0.0193	1.6020	110.7000	0.0000E+00	
5429-32-08 Y 35	F3RT BRAGG/DEPT OF THE ARMY 910-394-9124	3RD BRIGADE BARRACKS FORT BRAGG, NC 21401	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0030E+00	1.4800E+00	4.0000E-01	0.0112	1.3950	67.3500	0.0000E+00	
5528-21-08 Y 35	HACKLEY HOSPITAL 816-662-3197	1700 CLINTON STREET MUSKOGON, MI 49442	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	3.1487E+04	8.5101E+01	8.0193	8.6820	110.7000	0.0000E+00	
5522-12-08 Y 35	HEARTCARE CENTER OF IL/BLUE ISLAND 815-258-8379	2130 NEW STREET BLUE ISLAND, IL 62406	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	3.7000E-01	1.0000E-01	0.0087	0.3410	85.3500	0.0000E+00	
5512-12-08 Y 36	HEARTCARE CENTER OF ILLINOIS 786-824-1114	18001 OLD LA GRANGE ROAD 2ND FLOOR BOKERA, IL 30448	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	3.7000E-01	1.0000E-01	0.0087	0.3410	85.3500	0.0000E+00	
5513-13-08 Y 36	HCKORY CARDIAC CARE 788-739-3900	3611 W. 183RD STREET HAZELCREST, IL 60423	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	2.7730E+00	7.5000E-01	0.0087	0.3410	85.3500	0.0000E+00	
5582-12-08 Y 36	RT RESEARCH INSTITUTE 847-965-1999	100 WEST 33RD STREET CHICAGO, IL 60616	SEALED SOURCE/DEVICE					0.0000E+00	0.0000E+00	0.0000E+00	3.4042E+03	9.2033E+01	0.0316	1.1850	282.0600	0.0000E+00	

FORM 542A (08-03)