

ROBERT WOOD JOHNSON  
UNIVERSITY HOSPITAL  
HAMILTON

December 10, 2008

Br. 1

United States Nuclear Regulatory Commission  
Region I  
Licensing Assistance Section  
475 Allendale Rd.  
King of Prussia, PA. 19407

To Whom It May Concern,

03010491

Robert Wood Johnson University Hospital at Hamilton, license number 29-16145-01 wishes to submit the final survey and wipe test of our Clinical Pharmacology Unit located at #3 Hamilton Health Place. This location was used solely for the purpose of uptake, dilution and excretion studies as material listed in item 6A on our license. We will no longer be performing studies at this location. All areas of use and storage have been surveyed and wipe tested and are below the levels permitted for an unrestricted area. All radioactive waste has been removed from this site. We are submitting the final wipe test and surveys of the areas of use and storage as well as the low level radioactive waste manifest from Duratek, Inc. Please remove #3 Hamilton Health Place as a location of use from our license. Should you have any questions, please contact our Radiation Safety Officer, Ms. Janet Bryant through her office at 908-788-9440, extension 40, or you may contact Mr. Ryszard Czarnuszewicz, Administrative Director of Radiology at 609-584-6606.

Sincerely,

  
Ellen Guarnieri  
Chief Executive Officer

cc. Mr. Ryszard Czarnuszewicz, MBA  
Ms. Janet Bryant, MS

RECEIVED  
REGION I  
2008 DEC 15 AM 10:57

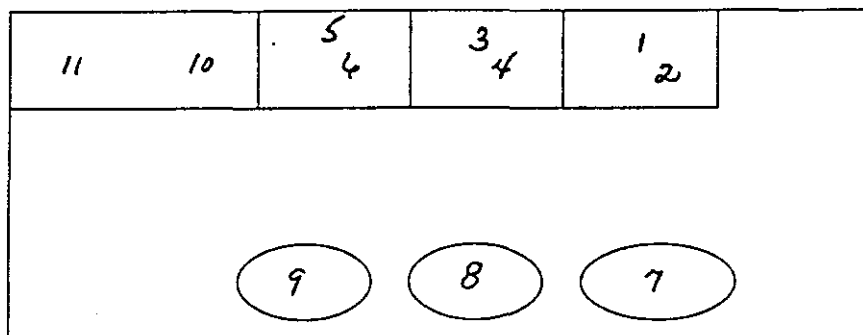
**Bristol Myers Squibb Clinical Pharmacology Unit  
Lavatory Area Monitoring**

Date:	11/4/08	10/20/08
Surveyor:	Survey <i>ml/dw</i>	Wipe
Background	0.02	22 dpm
1. Commode	0.03	70 dpm
2. Floor	0.03	31 dpm
3. Commode	0.03	70 dpm
4. Floor	0.03	31 dpm
5. Commode	0.02	70 dpm
6. Floor	0.02	31 dpm
7. Sink	0.03	29 dpm
8. Sink	0.03	29 dpm
9. Sink	0.02	29 dpm
10. Shower-floor	0.03	29 dpm
11. Shower-floor	0.03	37 dpm

All areas surveyed must be less than 0.5 mR/hour. All wipe tests must be less than 200-dpm/100 cm<sup>2</sup>. Any area exceeding these levels requires decontamination and RSO notification.

Area decontaminated: None applicable  
 Final survey: X Final wipe: X RSO: J. Bryant, M.S.

Survey Instrument: Ludlum Model 14 C SN: 152823  
 Wipe Instrument: Liquid Scintillation Counter



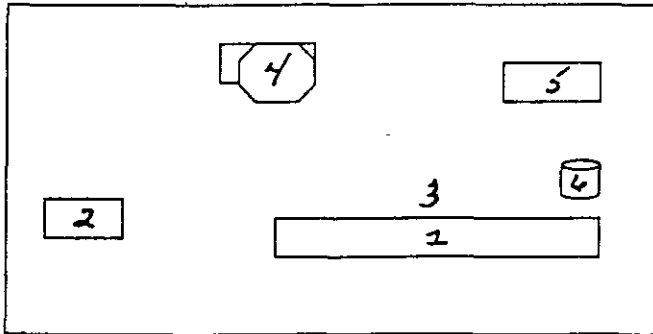
**Bristol Myers Squibb Clinical Pharmacology Unit  
CPU Lab (Room 217) Monitoring**

Date:	<i>10/14/08</i>	<i>10/20/08</i>
Surveyor:	Survey <i>mR/hr</i>	Wipe
Background	<i>0.02</i>	<i>23 dpm</i>
1.Counter	<i>0.02</i>	<i>35 dpm</i>
2.Tray	<i>0.02</i>	<i>29 dpm</i>
3.Floor	<i>0.02</i>	
4.Centrifuge- RC2-B	<i>0.03</i>	<i>28 dpm</i>
5.Revco Freezer	<i>0.02</i>	<i>35 dpm</i>
6.Waste Can	<i>0.03</i>	<i>35 dpm</i>
7.Other <i>Waste Storage</i>	<i>0.02</i>	

All areas surveyed must be less than 0.5 mR/hour. All wipe tests must be less than 200-dpm/100 cm<sup>2</sup>. Any area exceeding these levels requires decontamination and RSO notification.

Area decontaminated: *None*  
 Final survey:  Final wipe:  RSO: *J. Bayard, MS*

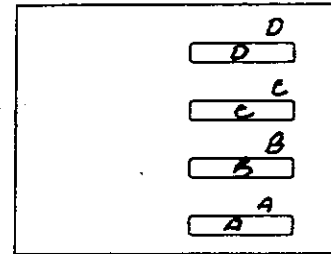
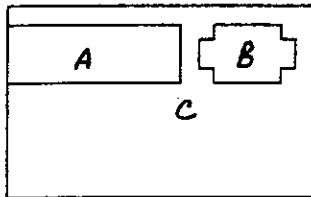
Survey Instrument: Ludlum Model 14 C SN: 152823  
 Wipe Instrument: Liquid Scintillation Counter



**Bristol Myers Squibb Clinical Pharmacology Unit  
Dose Administration Area Monitoring**

**Pharmacy Room 220**

Date:	<i>11/4/08</i>	<i>10/7/08</i>
Surveyor:	Survey <i>mR/hr</i>	Wipe
Background	<i>0.02</i>	<i>23 cpm</i>
A. Counter	<i>0.02</i>	<i>176 dpm</i>
B. Chair	<i>0.02</i>	<i>49 dpm</i>
C. Floor	<i>0.02</i>	<i>41 dpm</i>



**IV Dosing Room 155**

Date:	<i>No longer used</i>	
Surveyor:	Survey	Wipe
Background		
Chair A		
Floor A		
Chair B		
Floor B		
Chair C		
Floor C		
Chair D		
Floor D		

All areas surveyed must be less than 0.5 mR/hour. All wipe tests must be less than 200-dpm/100 cm<sup>2</sup>. Any area exceeding these levels requires decontamination and RSO notification.

Area decontaminated: *None*  
 Final survey: *X* Final wipe: *X* RSO: *J. Bryant, MS*

Survey Instrument: Ludlum Model 14 C SN: 152823  
 Wipe Instrument: Liquid Scintillation Counter

**Bristol Myers Squibb Clinical Pharmacology Unit**  
**Area Room Monitoring**  
(Must be done prior to release of room)

Date:	Room:	Room:	Room:
<i>11/4/08</i>	<i>102</i>	<i>103</i>	<i>104</i>
Surveyor:	Wipe	Survey	Wipe
<i>J. Bryant</i>			
1. Background	<i>22 cpm</i>	<i>0.02</i>	<i>22 cpm</i> <i>0.02</i>
2. Surface bed A	<i>21 dpm</i>	<i>0.02</i>	<i>37 dpm</i> <i>0.02</i>
3. Floor bed A	<i>20 dpm</i>	<i>0.02</i>	<i>25 dpm</i> <i>0.03</i>
4. Surface bed B	<i>26 dpm</i>	<i>0.03</i>	<i>35 dpm</i> <i>0.02</i>
5. Floor bed B	<i>20 dpm</i>	<i>0.02</i>	<i>25 dpm</i> <i>0.03</i>
6. Surface bed C	<i>33 dpm</i>	<i>0.02</i>	<i>33 dpm</i> <i>0.03</i>
7. Floor bed C	<i>20 dpm</i>	<i>0.03</i>	<i>25 dpm</i> <i>0.03</i>
8. Surface bed D	<i>n/a</i>	<i>-</i>	<i>n/a</i> <i>-</i>
9. Floor bed D	<i>n/a</i>	<i>-</i>	<i>n/a</i> <i>-</i>
10. Other			

All areas surveyed must be less than 0.5 mR/hour. All wipe tests must be less than 200-dpm/100 cm<sup>2</sup>. Any area exceeding these levels requires decontamination and RSO notification.

Area decontaminated: *None*

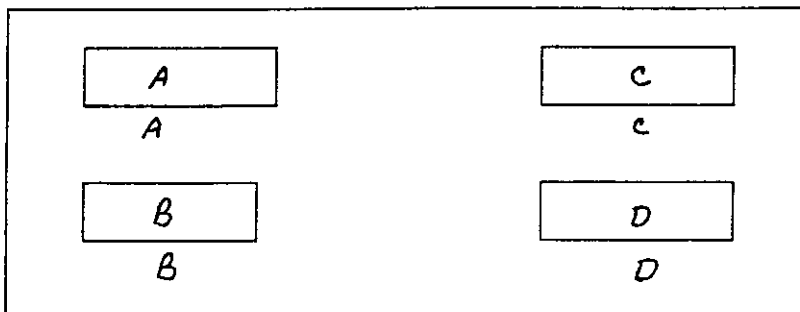
Final survey: *X*

Final wipe: *X*

RSO: *Jane Bryant, MS*

Survey Instrument: Ludlum Model 14 C SN: 152823

Wipe Instrument: Liquid Scintillation Counter



**Duratek™****Shipment Summary Form**

Required for all Duratek waste processing facilities

Form WAG-501-F1

Rev. 1

Generator: Bristol Myers (Hamilton) cust #2483 Shipment Date: 11-24-08  
 Shipment Number: T084767 TN License for Delivery No: T-TN012-L08  
 Contract/Release Number: \_\_\_\_\_ Total # of Containers: 4  
 Shipment Weight: 331 lbs Total Activity (mCi): 2.0 mCi  
 Highest Contact Dose Rate: <.5 mR/hr SNM Grams: N/A

**MATERIALS SHIPPED***Please Estimate Percentage of Total Shipment by Weight (Must Add to 100%)*

<b>DAW</b> (Incineration, Compaction)	DAW	<u>75 %</u>	Asbestos	<u>    </u> %
<b>METALS</b> (Melting, Decontamination, Volume Reduction & Disposal)	Metals	<u>    </u> %	Asbestos	<u>    </u> %
	Lead Blankets (wool)	<u>    </u> %	Lead Sheets	<u>    </u> %
	Lead Brick	<u>    </u> %	Lead Shot	<u>    </u> %
<b>LIQUIDS</b> (Incineration, drying, solidification)	Aqueous Liquids	<u>25 %</u>	Sludge	<u>    </u> %
	Oil	<u>    </u> %	Oily Waste	<u>    </u> %
	Grease	<u>    </u> %	EHC	<u>    </u> %
<b>POTENTIALLY CLEAN MATERIAL</b> (Green Is Clean, Safecheck)	Plant Trash	<u>    </u> %	Construction & Demolition Debris	<u>    </u> %
	Wastewater Sludge (NOTE 1)	<u>    </u> %	Sewage Sludge (NOTE 1)	<u>    </u> %
	Cation/Anion Resin	<u>    </u> %	PCB Bulk Product Waste (NOTE 1)	<u>    </u> %
	Carbon Filter Media	<u>    </u> %	Asbestos	<u>    </u> %
	Other (specify): _____			<u>    </u> %
<b>SPECIAL PROJECT</b>	Describe nature of project in Special Instructions, below (e.g., Transship, Dewatering, Source Encapsulation, etc.)			

NOTE 1: Requires TCLP analysis prior to shipment of each campaign of similar waste.

**WASTE INFORMATION**

(ITEMS IDENTIFIED WITH \*\* REQUIRE DURATEK APPROVAL PRIOR TO SHIPMENT; SEE SECTION 8 OF THE WAG)

**DAW > 200 mrem/hr @ contact with waste <input type="checkbox"/>		**Metals > 100 mrem/hr @ contact with waste <input type="checkbox"/>	
Hot Particles <input type="checkbox"/>	Activated Material <input type="checkbox"/>	**High Smearable <input type="checkbox"/>	**SNM/Source Material <input type="checkbox"/>
CLASSIFIED/NOFORN <input type="checkbox"/>	Sharps <input type="checkbox"/>	**Sealed Sources <input type="checkbox"/>	**Lead-Acid Batteries <input type="checkbox"/>
**Paint Chlps (NOTE 1) <input type="checkbox"/>	**PCBs <input type="checkbox"/>	** Hazardous Waste (per 40 CFR 261) <input type="checkbox"/>	
Biological <input checked="" type="checkbox"/>	**Trans-shipment <input type="checkbox"/>	Liquid Filters (Separate Isotopics Required) <input type="checkbox"/>	
**RCRA Empties <input type="checkbox"/>	**Soils <input type="checkbox"/>	**Refrigeration Equipment <input type="checkbox"/>	
Class 7 Labeled Waste    White I <input type="checkbox"/> Yellow II <input type="checkbox"/> Yellow III <input type="checkbox"/>			

**SPECIAL INSTRUCTIONS**

If necessary, provide additional information on a separate page.

**DISPOSAL SITE**

Barnwell (Permit/Allocation Required) <input type="checkbox"/>	Envirocare <input checked="" type="checkbox"/>	Barnwell or Envirocare <input type="checkbox"/>	Other/Return (specify): _____
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**CONTAINERS**

Duratek-Owned Containers <input type="checkbox"/>	Containers to Be Returned to Generator <input type="checkbox"/>
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### Specialized Generator/Services Package Summary

Generator: Bristol Myer Squibb Location: 3 Hamilton Health Place Hamilton, NJ Contact Name David Schultz

Phone: 609-689-4305 Date: 31 Oct 2008 Customer Signature: David P. Schultz

Container I.D. #/Type	Container Volume (ft <sup>3</sup> )	Container Weight (lbs.)	Burial Site (Envirocare, Barnwell, or Hanford)	Processing Requested	Highest Surface Radiation Level On Contact (mRem/hr)	Surface Contamination (100cm <sup>2</sup> )		Waste Description (Detail description of what is in container)	Radionuclides in Container	Activity per Nuclide (mCi)	Total Activity Per Container (mCi)
						Alpha	BetaGamma				
MD-1		73		I	<0.5	<100	<1000	DAW B L	C14	0.5	
MD-2		79		I	<0.5	<100	<1000	DAW B L	C14	0.5	
MD-3		96		I	<0.5	<100	<1000	DAW B L	C14	0.5	
MD-4		83		I	<0.5	<100	<1000	DAW B L	C14	0.5	
TOTALS		331									

**Container:** Wooden Box (WB)    Plastic Drum (PD)    **Processing:** Compaction (C)    **Wastes:** Paper, Plastic, Glass (DAW)    Oil (O)  
Metal Box (MB)    Plastic Pail (PP)    Incineration (I)    Animals (A)    Filters (F)  
Metal Drum (MD)    Fiber Box (FB)    Metal Decon (MD)    Biological Materials (B)    Sources (S)  
Metal Pail (MP)    Metal Tank (MT)    Stabilization/Encapsulation (SE)    Metals (M)    Liquids (L)  
Other (O): \_\_\_\_\_    Sorting & Comp./Inc. (S&P)    Soils/Rubble (R)    Other (X) \_\_\_\_\_

- Important Notes:**
1. Company name, address, identification number, and the weight (pounds) must be posted on the top of each package.
  2. Each customer will need to provide a package survey (smears and dose rates) with the appropriate calibrated instrumentation.
  3. When computing package activity, please carry out the decimal point 4 places.

**Please fax to:** Chris Denton at (865) 475-2935 & SGS at 865-220-1643    **E-Mail:** dbrackett@duratekinc.com & cdenton@duratekinc.com

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (7-8 P33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollections@nrc.gov](mailto:infocollections@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, MEOB-10202, (30155-0164), Office of Management and Budget, Washington, DC 20503. If a notice used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 540		Energy Solutions / Bear Creek Operations		5. SHIPPER - NAME AND FACILITY		SHIPMENT ID NUMBER		7. FORM 540 AND 540A		PAGE 1 OF 1 PAGE(S)		8. MANIFEST NUMBER					
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER				Bristol-Myers Squibb / Hamilton CIO Energy Solutions 3 Hamilton Health Place Hamilton, NJ 08690		T084767		FORM 541 AND 541A FORM 542 AND 542A ADDITIONAL INFORMATION		2 PAGE(S) 1 PAGE(S) 1 PAGE(S)		(Use this number on all continuation pages) T084767					
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (865) 220-1655				USER PERMIT NUMBER T-TN012-L-08		SHIPMENT NUMBER T084767		PROCESSOR		9. CONSIGNEE - Name and Facility Address Energy Solutions / Bear Creek Operations Operated By EnergySolutions 1580 Bear Creek Road Oak Ridge, TN 37830				CONTACT Fred Schulz TELEPHONE NUMBER (Include Area Code) (865) 481-0222			
ORGANIZATION Energy Solutions Attn: Emergency Duty Officer				CONTACT David Schultz		TELEPHONE NUMBER (Include Area Code) (804) 889-4305		EPA I.D. NUMBER TND 987783055		SIGNATURE - Authorized consignee acknowledging waste receipt				DATE			
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 4		6. CARRIER - Name and Address Energy Solutions, operated by Hitman 628 Galeshner Road Kingston, TN 37763-9888		Truck #: 5437 Trailer #: 730830		SHIPPING DATE 11/24/2008		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 in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 51, or equivalent state regulation.							
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		EPA MANIFEST NUMBER N/A		CONTACT Keray Kirby		SIGNATURE - Authorized carrier acknowledging waste receipt <i>[Signature]</i>		DATE 11/24/08		AUTHORIZED SIGNATURE <i>[Signature]</i>		TITLE Driver		DATE 11/24/08			
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	
Non-Radioactive per DOT BIOLOGICAL; DAW; LIQUID 1 - METAL DRUM		NA		NA		SOLID/METAL OXIDES C-14				1.8500E+01 (5.0000E-01)		NA		7.50 R <sup>3</sup> 73.00 lb		08-001743 (MD-1)	
Non-Radioactive per DOT BIOLOGICAL; DAW; LIQUID 1 - METAL DRUM		NA		NA		SOLID/METAL OXIDES C-14				1.8500E+01 (5.0000E-01)		NA		7.50 R <sup>3</sup> 79.00 lb		08-001744 (MD-2)	
Non-Radioactive per DOT BIOLOGICAL; DAW; LIQUID 1 - METAL DRUM		NA		NA		SOLID/METAL OXIDES C-14				1.8500E+01 (5.0000E-01)		NA		7.50 R <sup>3</sup> 98.00 lb		08-001745 (MD-3)	
Non-Radioactive per DOT BIOLOGICAL; DAW; LIQUID 1 - METAL DRUM		NA		NA		SOLID/METAL OXIDES C-14				1.8500E+01 (5.0000E-01)		NA		4.10 R <sup>3</sup> 83.00 lb		08-001746 (MD-4)	
FOR CONSIGNEE USE ONLY				20. Generator Certification Statement													
Tennessee "License For Delivery" No. _____				A) Radioactive Materials. Certification is hereby made 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 or an Agreement State regulatory agency and with the current revision of the site Material Acceptance Criteria.													
South Carolina Transport Permit No. _____				B) Hazardous Materials. Generator hereby certifies that this material does not meet the definition of hazardous waste as defined in 40 CFR 261.													
US Ecology Generator No. _____				C) Date. Generator hereby represents and warrants that all data set forth in this (UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST) is true and correct in all respects and in accordance with all applicable governmental laws, rules, regulations and site Radioactive Material Licenses.													
US Ecology Permit No. _____				D) DUCTIOUS SUBJECT. Generator hereby certifies that the material does not contain any hazardous substances as defined in 40 CFR 261.114.													
				<i>David P. Schulte</i> <i>David P. Schulte</i> <i>[Signature]</i> <i>11/24/08</i>													



Estimated burden per response to comply with this information collection request: 3.5 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (7-5782), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0901, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541		Energy Solutions / Bear Creek Operations		1. MANIFEST TOTALS								2. MANIFEST NUMBER	
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST				NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (grams)				TOTAL	T084767	
							U-233	U-235	Pu				
CONTAINER AND WASTE DESCRIPTION				4	m <sup>3</sup> 4 <sup>3</sup>	0.75 28.54	kg b	68.51 157.00	U-233	U-235	Pu	NP	PAGE 1 OF 2 PAGE(S)
									NP	NP	NP	NP	
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste				ACTIVITY (MBeq/CC) (LLD UNITS IN U/CC)								SOURCE	SHIPMENT ID NUMBER
				ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	NP	NP	NP		
				MBeq	2.4000E+01	NP	7.4000E+01	NP	NP	NP	NP	T084767	
				mCi	2.0000E+00	NP	2.0000E+00	NP	NP	NP	NP		
DISPOSAL CONTAINER DESCRIPTION													16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
8. CONTAINER IDENTIFICATION NUMBER/ GENERATOR NUMBER	9. CONTAINER DESCRIPTION (See Note 1) PROCESS DESCRIBED (See Note 1A) SURTAL DISPOSITION (See Note 1A)	10. VOLUME m <sup>3</sup> / ft <sup>3</sup>	11. WASTE AND CONTAINER WEIGHT kg / lb	12. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	13. SURFACE CONTAMINATION MBq/100 cm <sup>2</sup> / dpm/100 cm <sup>2</sup>		14. PHYSICAL DESCRIPTION		15. CHEMICAL DESCRIPTION		16. RADIOLOGICAL DESCRIPTION		
3 - Interpack Container													AS - Class A Stable
08-001743 (MD-1) 2483	4 O - INCINERATION E	0.21 7.50	33.11 73.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-08 < 1.0000E+02	< 1.8700E-05 < 1.0000E+03	59(DAW) 42 25	0.21 7.51	100	SOLID METAL OXIDES / NP	NP	C-14	
Sub Total													1.8500E+01 5.0000E-01
Package Total													1.8500E+01 5.0000E-01
08-001744 (MD-2) 3483	4 O - INCINERATION E	0.21 7.50	33.83 79.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-08 < 1.0000E+02	< 1.8700E-05 < 1.0000E+03	59(DAW) 42 25	0.21 7.51	100	SOLID METAL OXIDES / NP	NP	C-14	1.8500E+01 5.0000E-01
Sub Total													1.8500E+01 5.0000E-01
Package Total													1.8500E+01 5.0000E-01
08-001745 (MD-3) 2483	4 O - INCINERATION E	0.21 7.50	43.54 86.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-08 < 1.0000E+02	< 1.8700E-05 < 1.0000E+03	59(DAW) 42 25	0.21 7.51	100	SOLID METAL OXIDES / NP	NP	C-14	1.8500E+01 5.0000E-01
Sub Total													1.8500E+01 5.0000E-01
Package Total													1.8500E+01 5.0000E-01
08-001746 (MD-4) 2483	4 O - INCINERATION E	0.12 4.10	37.85 83.00	< 5.0000E-03 < 5.0000E-01	< 1.8700E-08 < 1.0000E+02	< 1.8700E-05 < 1.0000E+03	59(DAW) 42 25	0.12 4.11	100	SOLID METAL OXIDES / NP	NP	C-14	1.8500E+01 5.0000E-01
Sub Total													1.8500E+01 5.0000E-01
Package Total													1.8500E+01 5.0000E-01

**NOTE 1: Container Description Codes.** For containers/waste requiring attention in prepared transport overpacks, the container code must be followed by "O".

1. Wooden Box or Crate	8. Drum/Canister
2. Metal Box	9. Gas Cylinder
3. Plastic Drum or Pail	10. Solid Unpackaged Waste
4. Metal Drum or Pail	11. Unpackaged Components
5. Metal Tank or U-tube	12. High Integrity Container
6. Concrete Tank or Liner	13. Other. Describe in Item 8, or additional page
7. Polyethylene Tank or Liner	14. Fiberglass Tank or Liner

**NOTE 1A: Process Reported**

C. Composites
DR. Sludge Refining
DC. Slurry Incineration
BL. Salt & Inorganics
D. Dross
DL. Drains to Clean
IL. Metal Slud
T. Trans-Ship
LI. Liquid for Incineration
DL. DR for Incineration
C. Other (describe)

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

20. Chances	26. Semifluid Sludge	32. Expander Refuse/Sludge/Coenocysts
21. Incinerator Ash	27. Solen Ion-exchange Media	33. Comminuted Trash
22. Gels	28. Solen Ion-exchange Media	34. Non-comminuted Trash
23. Gas	29. Mixed Bed Ion-exchange Media	35. Animal Carcass
24. Oil	30. Contaminated Equipment	36. Biological Material (except animal carcass)
25. Other	31. Organic Liquid (except oil)	37. Glassware or Labware
	32. Filter Media	38. Solid Radioisotope
	33. Mechanical Filter	39. EPA or State Hazardous
	34. EPA or State Hazardous	40. Paint or Plating

**NOTE 3: Solidification and Stabilization Media Codes.** (Choose up to three which predominate by volume.) For media meeting disposal site physical stability requirements, the material code must be followed by "S" and the media vendor and brand name must also be identified in Item 13. Code 100=None Required

B. Barium Waste Making agent Facility	34. Vinyl Ester Silylate
E. Evaporator	35. Other. Describe in Item 13, or additional page
R. Richmond, VA	36. None Required
PR. Process and Return	
O. Other	

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimates to the Records and FOIA/Privacy Services Branch (7-6 FSI), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0041, or by Internet e-mail to [infocollections@nrc.gov](mailto:infocollections@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10282, (3150-0149), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FORM 541A		<b>UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST</b>						Energy Solutions / Bear Creek Operations		2. MANIFEST NUMBER T084767					
<b>CONTAINER AND WASTE DESCRIPTION (CONTINUATION)</b>								3. PAGE 2 OF 2 PAGE(S)							
DISPOSAL CONTAINER DESCRIPTION					WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
5. CONTAINER IDENTIFICATION NUMBER / GENERATOR NUMBER	6. CONTAINER DESCRIPTION (See Note 1) PROCESS REGULATED (See Note 1A) ISOLATION POSITION (See Note 2A)	7. VOLUME m <sup>3</sup> / ft <sup>3</sup>	8. WASTE AND CONTAINER WEIGHT kg / lb	9. SURFACE RADIATION LEVEL mSv/hr / mrem/hr	10. SURFACE CONTAMINATION MBq/100 cm <sup>2</sup> / dpm/100 cm <sup>2</sup>		11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m <sup>3</sup> / ft <sup>3</sup>	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT (P > 0.1%)	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL; OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT			16. WASTE CLASSIFICATION AS - Class A Stable AU - Class A Unstable B - Class B C - Class C
					ALPHA	BETA-GAMMA						RADIONUCLIDES	MBq	mCi	
Shipment Total		0.75 26.60	150.13 331.00											7.4000E+01 2.0000E+00	

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 P52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-4001, or by Internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NED-10202, (3156-6155), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 542 (7-2001)		Energy Solutions / Bear Creek Operations		1. WASTE COLLECTOR/PROCESSOR				2. MANIFEST NUMBER			
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST MANIFEST INDEX AND REGIONAL COMPACT TABULATION				NAME Bristol-Myers Squibb / HamiltonCO Energy Solutions		SHIPPER USE ONLY		7084767			
List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators				IDENTIFICATION NUMBER 2483				3. PAGE 1 OF 1 PAGE(S)			
				SHIPPING DATE 11/04/2008							
4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE), AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME m <sup>3</sup>	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P-PROCESSED C-COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL				
							A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY MBq	D. VOLUME m <sup>3</sup>	
2483	Bristol-Myers Squibb / Hamilton EPA #: 0428 699-4305	3 Hamilton Health Place Hamilton, NJ 08800	0.75	0428 Generation 11/20/2008	C	NJ	NP	NP	7.4000E+01	0.75	
<b>TOTALS OF ALL PAGES (FORMS 542 AND 542A)</b>							NP	NP	7.4000E+01	0.75	

**UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST  
ISOTOPIC SUMMARY**

For Manifest # T084767

Energy Solutions / Bear Creek Operations

Isotope	Total Activity			Total SNM	Total Source
	(MBq)	(mCi)	(Ci)	(gm)	(lb)
C-14	7.4000E+01	2.0000E+00	2.0000E-03	.0000E+00	.0000E+00
<b>Totals:</b>	7.4000E+01	2.0000E+00	2.0000E-03	.0000E+00	.0000E+00

This is to acknowledge the receipt of your letter/application dated

12/10/08, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment (29-16145-01)  
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

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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** 143104.  
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