



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

November 20, 2015

Mike Matthews  
Henry County Hospital  
1000 N. 16<sup>th</sup> Street  
New Castle, IN 47362

RE: Disposal Certificate

Dear Mr. Mike Matthews:

This is to certify that the following radioactive material received from your facility on July 29, 2015 on manifest #72915HCH container #HCH-01 has been disposed of at the WCS Compact Waste Disposal Facility (CWF) in Andrews, TX.

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

Bionomics Manifest Number	WCS Shipment Number	Disposal Volume (ft <sup>3</sup> )	WCS Modular Concrete Canister (MCC)	WCS Disposal Date
BW-07-15	SR-2156-0023	0.20	C-0172	11/16/15

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

Thank you,

*Denise Janssen*  
Denise Janssen  
Administrative Manager

Cc: BW-34



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

July 31, 2015

MIKE MATTHEWS

HENRY COUNTY HOSPITAL  
1000 N 16<sup>TH</sup> STREET  
NEW CASTLE, IN 47362

Dear Matt,

As required by 10 CFR Part 20 (Appendix G), this letter is notification that Bionomics, Inc. has received the shipment recently picked up on **July 29, 2015**.

Attached you will find a copy of your NRC Form 540, the only change from the original is in Item No.9 "signature" which identifies that Bionomics, Inc. is acknowledging receipt of waste from your facility.

Please keep this with your original, as well as future disposal certifications.

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

Sincerely,

A handwritten signature in cursive script that reads 'Paul Nipper'.

Paul Nipper  
QA Manager

Cc: File BIO-07-15

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 (IT-5 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to [infocollect@nrc.gov](mailto:infocollect@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-10202, (3150-0164), 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 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		Bionomics, Inc.		5. SHIPPER - NAME AND FACILITY Bionomics, Inc. on Behalf of Henry County Hospital 1000 N 18th Street New Castle, IN 47362		SHIPMENT ID NUMBER 72915HCH		7. FORM 540 AND 540A FORM 541 AND 541A 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) 72915HCH					
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (865) 220-8520		USER PERMIT NUMBER		SHIPMENT NUMBER		X GENERATOR TYPE (Specify) M		9. CONSIGNEE - Name and Facility Address Bionomics, Inc. Operated By Bionomics Inc. 1550 Bear Creek Road Oak Ridge, TN 37830		CONTACT John McCormick		TELEPHONE NUMBER (Include Area Code) (865) 220-8501					
ORGANIZATION Bionomics, Inc.		CONTACT Mike Matthews		TELEPHONE NUMBER (Include Area Code) (765) 521-1140		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Paul Nipper</i>		DATE 7/3/15		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 81 or equivalent state regulator.							
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [ ] YES [X] NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address Bionomics, Inc. 1550 Bear Creek Road Oak Ridge, TN 37830		Truck #:		EPA ID. NUMBER TND982118493		SHIPPING DATE 07/28/2015		TELEPHONE NUMBER (Include Area Code) 865-220-8501					
4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes", provide Manifest Number		EPA MANIFEST NUMBER N/A		CONTACT John McCormick		SIGNATURE - Authorized carrier acknowledging waste receipt <i>Paul Nipper</i>		DATE 7-29-15		AUTHORIZED SIGNATURE <i>Paul Nipper</i>		TITLE Tech					
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 NA		14. PHYSICAL AND CHEMICAL FORM SOLID/OXIDES		15. INDIVIDUAL RADIONUCLIDES CO-57 : GD-153		16. TOTAL PACKAGE ACTIVITY MBq 1.2168E+04		17. LSA/SCO CLASS (3.2886E+02)		18. TOTAL WEIGHT OR VOLUME (Use appropriate units) 0.71 R <sup>3</sup> 50.00 lb		19. IDENTIFICATION NUMBER OF PACKAGE HCH-01 (15-001270)	
UN2815, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7 SEALED SOURCES 1 - 5 GAL METAL DRUM		White 1		NA		SOLID/OXIDES		CO-57 : GD-153		1.2168E+04		(3.2886E+02)		0.71 R <sup>3</sup> 50.00 lb		HCH-01 (15-001270)	
FOR CONSIGNEE USE ONLY <i>BIO-07-15</i>		<ul style="list-style-type: none"> <li>— Record Waste Description Inadequate</li> <li>— Contamination or Leakage Detected</li> <li>— Unexpected Exposure Rates Detected</li> <li>— Labels, Markings, etc. Inadequate</li> <li>— Container Integrity Inadequate</li> <li>— Other</li> <li>* No Violations Detected on this Shipment</li> </ul>		<p>20. TERMS AND CONDITIONS</p> <p>A. HAZARDOUS MATERIALS: Generator represents &amp; warrants that Waste Material _____ is (or) are not hazardous waste as defined in 40 CFR 261. Where the material is a hazardous waste, this shipment is also accompanied by a separate and completed hazardous waste manifest, along with the appropriate label-disposal restriction marks and/or certification as required by 40 CFR 263.1.</p> <p>B. TITLE: Upon acceptance at the disposal site by EnergySolutions, Inc. and all appropriate regulatory authorities, title to the Waste Material which conforms to Generator's representations herein shall terminate transfer from Generator and be vested in EnergySolutions, Inc.</p> <p>C. WASTE MATERIAL: Generator represents and warrants that all data set forth in this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST are true and correct in all respects and in accordance with all applicable governmental laws, rules, and regulations and Environmental of Utah, Inc.'s Safety Manual.</p> <p>D. INDEMNIFICATION: Generator agrees to indemnify EnergySolutions, Inc., its officers, employees, and agents against all losses and liability whatsoever if such losses or liability result from the failure of the Waste Material to conform in all material respects to the data reported on this UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST or if this shipment fails to meet the standards prescribed by the Department of Transportation or any governmental agency having jurisdiction over such matters.</p>													

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 estimate to the Records and FOIA/Privacy Services Branch (1.9 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-6001, or by Internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202 (3150-0168), 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		Bionomics, Inc.			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)			72015HCH				
CONTAINER AND WASTE DESCRIPTION					1	m <sup>3</sup> 0.0200 kg R <sup>3</sup> 0.7083 ton	22.68 0.03	U-233 NP	U-238 NP	Pu NP	TOTAL NP				
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste					ACTIVITY (MBq/mCi) (LLD UNITS IN uCi/g)						3. PAGE 1 OF 1 PAGE(S)				
					ALL NUCLIDES		TRITIUM	C-14	Tc-99	I-129	SOURCE				
					MBq mCi	1.2168E+04 3.2886E+02	NP NP	NP NP	NP NP	NP NP	4. SHIPPER NAME Bionomics Inc. on Behalf of Henry County HOS				
											SHIPMENT ID NUMBER 72015HCH				
DISPOSAL CONTAINER DESCRIPTION															
6. CONTAINER IDENTIFICATION NUMBER	8. CONTAINER DESCRIPTION (See Note 1 & 1A)	7. VOLUME m <sup>3</sup> R <sup>3</sup>	9. WASTE AND CONTAINER WEIGHT kg ton	10. SURFACE RADIATION LEVEL mSv/hr microR/hr	10. SURFACE CONTAMINATION MBq/100 cm <sup>2</sup> dpm/100 cm <sup>2</sup>		11. WASTE DESCRIPTOR (See Note 2 & Note 2A)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER m <sup>3</sup> R <sup>3</sup>	13. SOLIDIFICATION OR STABILIZATION MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM/ CHELATING AGENT	15. WEIGHT % CHELATING AGENT (F > 0.1%)	16. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	17. WASTE CLASSIFICATION A3 - Class A Stable AU - Class A Unstable B - Class B C - Class C		
* - Indicates Container															
15-001270 (HCH-01)	Origin IN Henry County Hospital 1000 N 10th Street New Castle, IN	0.0200 0.7083	22.68 0.03	0.00005 0.005	< 0.00000334 < 20	< 0.0000157 < 1000	H 36	0.0200 0.7083	100	SOLID OXIDES / NP	NP	RADIONUCLIDES CO-57 2.8838E+05 GD-153 1.4242E+07 Sub Total 1.4500E+07 ***** 1.4500E+07	MBq 2.1582E+02 1.1951E+04 1.2168E+04 ***** 1.2168E+04	mCi 5.8600E+00 3.2300E+02 3.2886E+02 ***** 3.2886E+02	AU
Shipment Total		0.0200 0.7083	22.68 0.03									1.2168E+04 3.2886E+02			

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

1. Wooden Box or Crate	9. Drum/Canister
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 8, or additional page
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

**NOTE 1A: Bulk Packaging Description Codes.** (Choose one code in Item 8, if applicable.)

A. Condemned
B. Intentional
C. End-Use
D. Roll-off
E. Spillway

**NOTE 2: Waste Descriptor Codes.** (Choose up to three which best describe the waste.)

31. Charcoal	35. Demolition Rubble	39. Evaporator Bottoms/Sludge/Concentrates
32. Incinerator Ash	36. Dryed Ion-exchange Media	40. Concentrated
33. Soil	37. Active Ion-exchange Media	41. Compostable Trash
34. Gas	38. Mixed Dry Ion-exchange Media	42. Non-compostable Trash
35. Oil	39. Contaminated Equipment	43. Animal Carcass
36. Aqueous Liquid	40. Organic Liquid (except oil)	44. Biological Material (except animal carcasses)
37. Filter Media	41. Gypsum or Limestone	45. Archived Material
38. Mechanical Filter	42. Sewage Sludge/Solids	46. Other Describe in Item 11, or additional page
39. EPA or State Hazardous	43. Fuel or Plating	

**NOTE 2A: Specific Waste Descriptions.** (Choose all applicable codes.)

G. Depleted
H. Solts
I. Comminuted
J. Non-comminuted
K. Air Filtered Fibers
L. Asbestos

**NOTE 3: Solidification and Stabilization Media Codes.** (Choose up to three which predominates by volume.) For single inventory shipment the structural stability requirements, the numeric code must be followed by "-S" and the media vendor and brand name must also be identified in Item 13, Code (Other: None Required)

M. Cement	34. Vinyl Ester Resins
N. Concrete (encapsulation)	35. Other Describe in Item 11, or additional page
O. Bitumen	36. None Required
P. Vinyl Chloride	

## Tomczak, Tammy

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**From:** Null, Kevin  
**Sent:** Tuesday, October 18, 2016 7:26 AM  
**To:** Tomczak, Tammy  
**Subject:** FW: Henry County Hospital  
**Attachments:** Gd153DisposalManifest.pdf; Gd153DisposalRecords.pdf

Tammy, the attached documents need to get into ADAMS. The documents are additional information provided by the licensee for C/N 592101.

Thanks

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**From:** Patrick Byrne [mailto:pbyrne@mpcphysics.com]  
**Sent:** Tuesday, October 18, 2016 7:02 AM  
**To:** Null, Kevin <Kevin.Null@nrc.gov>  
**Subject:** [External\_Sender] Henry County Hospital

Kevin,  
Attached are the disposal records for the Gd-153 sources that had been possessed by Henry County Hospital. If you need anything else, please let me know.

Thanks,  
Patrick Byrne