

DMC
Leading. *Health.* Care.
Detroit Medical Center

March 20, 2019

Anthony Tedeschi, MD
Chief Executive Officer

Detroit Market Office
3880 John R
Detroit, MI 48201-2018

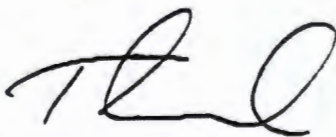
UNITES STATES NUCLEAR REGULATORY COMMISSION
Region III, Materials Licensing Section
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Re: Amendment to License No. 21-04172-02

1. Please remove 10 CFR 35.500 from the license. All sources were removed from this location on 06/22/2016. Please find the enclosed low-level radioactive waste manifest for your review.
2. Please remove Phosphorus-32 from the license. All waste was decayed to background and was disposed on 02/21/2011.

Thank you for your cooperation with this matter. If you have any question please contact our physicist, Michelle Kritzman, at (734) 662-3197 or by email at mkritzman@mpcphysics.com

Sincerely,



Anthony Tedeschi, MD
Chief Executive Officer
Detroit Medical Center

RECEIVED APR 11 2019

(Estimated burden per response to comply with this information collection request. All estimates for a 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 this form estimate to the Records and Information Services Branch (1 & F13), U.S. Nuclear Regulatory Commission, Washington, DC 20545-0001, or by Internet e-mail to: records@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, A-506-30241, 11155th St., Office of Management and Budget, Washington, DC 20503, if a new form is used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor it, and a person is not required to respond to the information collection.

HRC FORM 540 (8-2010) U.S. NUCLEAR REGULATORY COMMISSION UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		1. SHIPPER - NAME AND FACILITY VNS Harper Medical Hospital Nuclear Medicine, 3550 John R Street Detroit, MI 48201		SHIPMENT ID NUMBER 0615VNS9		7. FORM 540 AND 541A PAGE 1 OF 1 PAGE(S) FORM 541 AND 541A 1 PAGE(S) FORM 541 AND 541A NONE PAGE(S) ADDITIONAL INFORMATION NONE PAGE(S)		8. MANIFEST NUMBER (Use this number on all continuation pages) 0615VNS9	
1. EMERGENCY TELEPHONE NUMBER (include Area Code) (313) 770-1120 ORGANIZATION Economics, Inc.		USER FACILITY NUMBER 0615VNS9		SHIPMENT NUMBER 0615VNS9		3. CONSIGNEE - Name and Facility Address Perma-Fix of Florida Operated By Perma-Fix 1340 NW 67th Place Gainesville, FL 32653		CONTACT Raymond White TELEPHONE NUMBER (352) 373-6064	
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		5. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		4. DOES EPA REGULATED WASTE REQUIRE A MANIFEST ACCOMPANY THIS SHIPMENT? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "Yes", provide Manifest Number:		6. CARRIER - Name and Address Economics, Inc. 1350 Bear Creek Road Oak Ridge, TN 37830		EPA ID NUMBER TN0802115493 SHIPPING DATE 6/22/16 TELEPHONE NUMBER (include Area Code) 615-225-8501	
3. EPA MANIFEST NUMBER 91674562 J/A		9. CARRIER - Name and Address Economics, Inc. 1350 Bear Creek Road Oak Ridge, TN 37830		10. SIGNATURE - Authorized carrier acknowledging waste receipt <i>John McCarroll</i> DATE: 6-22-16		SIGNATURE - Authorized consignee acknowledging waste receipt <i>Raymond White</i> DATE: 6/22/16		18. CERTIFICATION This is to certify that the low-level waste material is properly classified, packaged, marked and labeled and is 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 proper condition for transportation and control as required by the requirements of 49 CFR Parts 29 and 41 or equivalent state regulation.	
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information) UN3321, WASTE RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-II), 7, (5 1) 1 - 5 GAL PLASTIC PAIL		12. DOT LABEL "RADIOACTIVE" NA		13. TRANSPORT INDEX NA		14. PHYSICAL AND CHEMICAL FORM SOLID/SLURRIES		15. INDIVIDUAL RADIOACTIVITIES TB-232: U-238	
				16. TOTAL PACKAGE ACTIVITY 1500E-03 (10541E-05)		17. LSA/SCO CLASS LSA II		19. TOTAL WEIGHT OR VOLUME (Use appropriate units) 5.71 B* 10.00 lb	
								18. IDENTIFICATION NUMBER OF PACKAGE VNS-02 (16-001453)	
FOR CONSIGNEE USE ONLY				20. Generator Certification Statement A) Radioactive Materials: Certification is hereby made that the 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 its Agreement State regulatory agency and with the current version of the 49 CFR Federal Acquisition Regulation (49 CFR 293.10). B) Material Strength: Container hereby certifies that the filler of this container meets the requirements of 49 CFR 293.10. C) Data: Generator hereby certifies and warrants that all data set forth in this (LSA/FORM LOW-LEVEL RADIOACTIVE WASTE) (HARPER) is true and correct to the best of its knowledge and all applicable governmental laws, rules, regulations and any regulatory agency's requirements. D) RESPECTFUL REMARKS: Generator hereby certifies that this material does not contain infectious biological material as defined in 49 CFR 173.104.					
				<i>Richard W. Jernell</i> Date:		<i>Raymond White</i> Date: 6/22/16			

Estimated burden per response to comply with this information collection request: 3.3 hours. This burden estimate 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 Director and FOIA Privacy Services Branch (3-333), U.S. Nuclear Regulatory Commission, Washington, DC 20543-0034, or by Internet e-mail to information@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, AEOE-1202, (301) 812-3450, Office of Management and Budget, Washington, DC 20503. If a warrant is issued 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 541 (3-2010)		U.S. NUCLEAR REGULATORY COMMISSION		I. MANIFEST TOTALS				SPECIAL NUCLEAR MATERIAL (grams)		2. MANIFEST NUMBER	
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION				NUMBER OF PACKAGE OR DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	U235	U238	Pl	TOTAL	35167-03
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste				1	0.720 LB 0.7063	4.64 19.80	NP	NP	NP	NP	PAGE 1 OF 1 PAGE(S)
4. SHIPPER NAME				ACTIVITY (MAY BE) (3.0 UNITS IN CURIES)				SOURCE		SHIPMENT IS ALLOWED	
5MS Harper Medical Hospital				C-14				T-99		0516V03	
5. SHIPPER ADDRESS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
14800 E. Harvard Ave				19.80				0.720		4.64	
Denver, CO 80231				19.80				0.720		4.64	
6. SHIPPER PHONE NUMBER				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
303.733.7300				0.720				0.720		4.64	
7. SHIPPER FAX NUMBER				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
8. SHIPPER CONTACT NAME				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
C. G. Miller				4.64				0.720		4.64	
9. SHIPPER CONTACT PHONE NUMBER				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
303.733.7300				0.720				0.720		4.64	
10. SHIPPER CONTACT FAX NUMBER				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
11. SHIPPER CONTACT EMAIL ADDRESS				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
12. SHIPPER CONTACT TITLE				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
Director				4.64				0.720		4.64	
13. SHIPPER CONTACT ADDRESS				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
14800 E. Harvard Ave				0.720				0.720		4.64	
14. SHIPPER CONTACT CITY				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
Denver				4.64				0.720		4.64	
15. SHIPPER CONTACT STATE				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
CO				0.720				0.720		4.64	
16. SHIPPER CONTACT ZIP CODE				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
80231				4.64				0.720		4.64	
17. SHIPPER CONTACT COUNTRY				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
USA				0.720				0.720		4.64	
18. SHIPPER CONTACT DATES				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
04/01/2019 - 04/01/2019				4.64				0.720		4.64	
19. SHIPPER CONTACT TIME PERIOD				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
04/01/2019 - 04/01/2019				0.720				0.720		4.64	
20. SHIPPER CONTACT FREQUENCY				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
Once				4.64				0.720		4.64	
21. SHIPPER CONTACT METHOD				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
Truck				0.720				0.720		4.64	
22. SHIPPER CONTACT MODE				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
Truck				4.64				0.720		4.64	
23. SHIPPER CONTACT TYPE				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
Waste				0.720				0.720		4.64	
24. SHIPPER CONTACT CLASSIFICATION				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
Low Level				4.64				0.720		4.64	
25. SHIPPER CONTACT SUBCLASSIFICATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
LL-1				0.720				0.720		4.64	
26. SHIPPER CONTACT COMMENTS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
27. SHIPPER CONTACT NOTES				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
28. SHIPPER CONTACT OTHER INFORMATION				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
29. SHIPPER CONTACT SPECIAL HANDLING INSTRUCTIONS				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
30. SHIPPER CONTACT SPECIAL HANDLING EQUIPMENT				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
31. SHIPPER CONTACT SPECIAL HANDLING PERSONNEL				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
32. SHIPPER CONTACT SPECIAL HANDLING TRAINING				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
33. SHIPPER CONTACT SPECIAL HANDLING CERTIFICATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
34. SHIPPER CONTACT SPECIAL HANDLING LICENSE				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
35. SHIPPER CONTACT SPECIAL HANDLING PERMIT				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
36. SHIPPER CONTACT SPECIAL HANDLING AUTHORITY				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
37. SHIPPER CONTACT SPECIAL HANDLING APPROVAL				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
38. SHIPPER CONTACT SPECIAL HANDLING REVIEW				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
39. SHIPPER CONTACT SPECIAL HANDLING COMPLIANCE				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
40. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
41. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
42. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
43. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
44. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
45. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
46. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
47. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
48. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
49. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
50. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
51. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
52. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
53. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
54. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
55. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
56. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
57. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
58. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
59. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
60. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
61. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
62. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
63. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
64. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
65. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
66. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
67. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
68. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
69. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
70. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
71. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
72. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
73. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
74. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
75. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
76. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
77. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
78. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
79. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
80. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
81. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
82. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
83. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
84. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
85. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
86. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
87. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
88. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
89. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
90. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
91. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
92. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
93. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
94. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.720		4.64	
95. SHIPPER CONTACT SPECIAL HANDLING DOCUMENTATION				NET WASTE VOLUME				NET WASTE WEIGHT		NET WASTE WEIGHT	
				0.720				0.720		4.64	
96. SHIPPER CONTACT SPECIAL HANDLING RECORDS				NET WASTE WEIGHT				NET WASTE VOLUME		NET WASTE WEIGHT	
				4.64				0.7			

Estimated burden per response to comply with this information collection is just 45 minutes. This uniform standard is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low level waste. Some comments regarding burden estimates in the Records and FOIA Privacy Services Branch (7-4737) U.S. Nuclear Regulatory Commission, Washington, DC 20545-0261, or by internet e-mail to info@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NRC-18011 (1112-0164), Office of Management and Budget, Washington, DC 20503. If it is ever used to impose an information collection on forms not displaying a currently valid GSA control number, the MEC on any such control number, and a person is not required to respond to the information collection.

FORM 540 UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		Economic, Inc.		1. SHIPPER - NAME AND FACILITY Biomatic, Inc. for VHS Harper-Nuclear Medical Nuclear Medicine, 3530 John R Street Detroit, MI 48201		SHIPMENT ID NUMBER 0619VNSA COLLECTOR PROCESSOR		7. FORM 540 AND 541A FORM 541 AND 541A FORM 541 AND 541A 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) 0619VNSA					
1. EMERGENCY TELEPHONE NUMBER (Include Area Code) (855) 223-8320 ORGANIZATION Biomatic, Inc.		USER PERMIT NUMBER CONTACT Renee Hagarly		SHIPMENT NUMBER 0619VNSA		X GENERATOR TYPE (Spec./A) M TELEPHONE NUMBER (Include Area Code) (313) 745-7777		3. CONSIGNEE - Name and Facility Address Biomatic, Inc. Operated By Biomatic, Inc. 1550 Bear Creek Road Oak Ridge, TN 37832		CONTACT John McCormick TELEPHONE NUMBER (Include Area Code) (615) 270-8551		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 2		4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "Yes", provide Manifest Number:		5. EPA MANIFEST NUMBER N/A		6. EPA ID NUMBER N/A		II. CERTIFICATION This is to certify that the low level waste is properly classified, restricted, packaged, marked, and labeled and is in proper condition for transportation according to the applicable requirements of the Department of Transportation. This is to certify that the materials are contained, packaged, marked, and labeled and in proper condition for transportation and disposal in accordance with the requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.		AUTHORIZED SIGNATURE DATE					
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE" Yellow III		13. TRANSPORT INDEX 1.0		14. PHYSICAL AND CHEMICAL FORM SOLID OXIDES		15. INDIVIDUAL RADIONUCLIDES BA-133; CO-57; CS-137; EU-152; GD-153; I-129; NA-22		16. TOTAL PACKAGE ACTIVITY 1.8513E+01 (1.4833E+01) mCi		17. IASGCO CLASS NA		18. TOTAL WEIGHT OR VOLUME 1.35 lb 50.00 lb 1.41 lb 62.00 lb		19. IDENTIFICATION NUMBER OF PACKAGE VHS-01 (16-001193) VHS-03 (16-001502)	
UN2919, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7 1 - 10 GAL METAL DRUM Non-Radioactive per DOT 1 - PLASTIC BOX		NA		NA		SOLID OXIDES		GD-153		1.337E+03 (1.6000E+02)		NA		62.00 lb (16-001502)			
FOR CONSIGNEE USE ONLY		Record Waste Description in duplicate Contamination or Leakage Detected Unacceptable Exposure Rates Detected Labels, Markings, etc. Inadequate Container Integrity Inadequate Other No Violations Detected on this Shipment		20. TERMS AND CONDITIONS A. MANIFESTOR RADIONUCLIDES: Consignor warrants it warrants that this material is not a byproduct or waste from a nuclear reactor or other source of radioactive materials, and that it is not a source of radiation as defined in 10 CFR 26.11. This material is not accompanied by a license and certificate of radioactive waste receipt, along with the appropriate identification of radioactive waste receipt modification as required by 41 CFR 243.1. B. TITLE: Upon acceptance of this shipment by Energy Solutions, Inc. and all appropriate regulatory authorities, title to the waste material which conditions is transferred to Energy Solutions, Inc. and its successors. C. WASTE MATERIAL: Consignor warrants and warrants that this material is in the UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST and is not subject to all applicable governmental laws, rules, and regulations and Executive Order 11651, Section 1(b)(2). D. IDENTIFICATION: Consignor agrees to indemnify Energy Solutions, Inc. in all respects, with past and future interest of claims and liability whatsoever of such losses or liability in whole or in part from the failure of the waste material to conform to all applicable laws, rules, and regulations and Executive Order 11651, Section 1(b)(2), as if the shipment were in fact the radioactive waste received by the Department of Transportation in any governmental agency having jurisdiction over such matters.													

Form 540 (10-96)

Modified Date: 06/22/2015 (11.4)

Estimated burden per response to comply with this information collection requirement is 30 hours. This burden estimate is required by AEC 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 Compliance Services Branch (1-5733), U.S. Dept. of Regulatory Compliance, Washington, DC 20545-0001, or by Internet e-mail to: hrc@nrc.gov. For information on the Department of Energy's Office of Information and Regulatory Affairs, NED-1121, (202) 546-4041, Office of Management and Budget, Washington, DC 20503. If you are unable to provide 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		Biometrics, Inc.		1. MANIFEST TOTALS						2. WASTE NUMBER				
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST CONTAINER AND WASTE DESCRIPTION				NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME	NET WASTE WEIGHT	SPECIAL NUCLEAR MATERIAL (g/gal)			GENYSA				
Add General Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste				7	m ³	3.27E+03	36.27	U-235	U-238	Pu	TOTAL	PAGE 1 OF 1 PAGE(S)		
				3	g	2.77E+02	8.04	NP	NP	NP	NP	NP	NP	4. SHEET NAME Biometrics, Inc. to VNS Hospital
				ALL NUCLEIDES		ACTIVITY (Bq/gal) (Lb/L) (Ci/gal)		C-14		SOURCE		SHIPMENT NUMBER		
				1.74E+11		NP		NP		1.155E-02		NP		
				4.82E+07		NP		NP		1.155E-04		NP		
DISPOSAL CONTAINER DESCRIPTION				WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER										
CONTAINER IDENTIFICATION NUMBER	CONTAINER DESCRIPTION (See Note 1 & 1A)	VOLUME	WASTE AND CONTAINER WEIGHT	SURFACE RADIATION LEVEL	SURFACE CONTAMINATION	PHYSICAL DESCRIPTION		CHEMICAL DESCRIPTION		RADIOLOGICAL DESCRIPTION				WASTE CLASSIFICATION
						ALPHA	BETA-GAMMA	WASTE DESCRIPTION (See Note 1 & Note 1A)	APPROXIMATE WASTE VOLUME (g/gal) IN CONTAINER	WASTE IDENTIFICATION NUMBER	WEIGHT % CHELATING AGENT IF > 1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIOACTIVE PERCENT	ADDITIONAL RADIONUCLIDES AND ACTIVITY AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIOACTIVE PERCENT	
<p>15-001457 (VNS-01) Origin: VNS Hospital VNS Hospital Nuclear Medicine, 3050 Johns Rd Detroit, MI 48226</p> <p>Package Total</p>														
<p>15-001502 (VNS-02) Origin: VNS Hospital Nuclear Medicine, 3050 Johns Rd Detroit, MI 48226</p> <p>Package Total</p>														
<p>Shipment Total</p>														

NOTE 1: Container Descriptions...
 1. Wooden Box or Crate
 2. Metal Box
 3. Plastic Drum or Pail
 4. Metal Drum or Pail
 5. Metal Tank or Cask
 6. Concrete Tank or Cask
 7. Property Transfer to Other
 8. Intermediate Tank or Cask
 9. Drum/Canister
 10. Gas Cylinder
 11. Bulk Vessel
 12. Open Top Container
 13. High Pressure Container
 14. Other, Describe in Note 1 or Additional page

NOTE 1A: Bulk Packaging Description Code
 (Choose one code as per 10 CFR 171.30(a))
 A. Composed
 B. Intermediate
 C. Single
 D. Special

NOTE 2: Waste Description Codes (Choose 1 up to three which pertain to waste)
 21. Crystalline
 22. Impure
 23. Salt
 24. Gas
 25. Oil
 26. Organic Liquid
 27. Inorganic Liquid
 28. Solid
 29. Slurry
 30. Sludge
 31. Gel
 32. Emulsion
 33. Colloid
 34. Other, Describe in Note 2 or Additional page
 35. Corrosive
 36. Oxidizing
 37. Flammable
 38. Toxic
 39. Other, Describe in Note 2 or Additional page

NOTE 3A: Specific Waste Descriptions (Choose all that apply)
 1. Disposed
 2. Salt
 3. Combustible
 4. Flammable
 5. Other, Describe in Note 3 or Additional page

NOTE 3B: Identification and Stabilization Methods Codes (Choose up to three which pertain to the waste) For waste meeting structural stability requirements, the numerical code must be followed by "S" and the waste number and brand name must also be identified in Note 3. Code combinations required:
 1. Cement
 2. Concrete
 3. Other, Describe in Note 3 or Additional page
 4. Other, Describe in Note 3 or Additional page
 5. Other, Describe in Note 3 or Additional page
 6. Other, Describe in Note 3 or Additional page
 7. Other, Describe in Note 3 or Additional page
 8. Other, Describe in Note 3 or Additional page
 9. Other, Describe in Note 3 or Additional page
 10. Other, Describe in Note 3 or Additional page
 11. Other, Describe in Note 3 or Additional page
 12. Other, Describe in Note 3 or Additional page
 13. Other, Describe in Note 3 or Additional page
 14. Other, Describe in Note 3 or Additional page
 15. Other, Describe in Note 3 or Additional page
 16. Other, Describe in Note 3 or Additional page
 17. Other, Describe in Note 3 or Additional page
 18. Other, Describe in Note 3 or Additional page
 19. Other, Describe in Note 3 or Additional page
 20. Other, Describe in Note 3 or Additional page

Source ID	Material	Activity	Date	Activity	Form	Source Description
M-032	129I	2.00E-07		2.00E-07	Rod	
Tube	129I	1.15E-07		1.15E-07	Micromedic	
F-092	129I				Rod	
3580383AS1	133Ba	2.62E-04	3/29/1983	2.98E-05	NES-358	
022582-027	133Ba	1.00E-07	2/25/1982	1.06E-08	NES-138A	
Unk	137Cs	1.74E-04	12/12/1974	6.72E-05	NES-356	
125	137Cs	1.00E-05	5/1/2010	8.72E-06	Button	
162068	137Cs	1.00E-06		1.00E-06	Rod	
658-194	137Cs	1.00E-06		1.00E-06	Rod	
053183-003	137Cs	9.90E-07	5/31/1983	4.65E-07	NES-139A	
	137Cs	1.12E-07	10/5/1976	4.51E-08	Rod	
92280	137Cs	1.04E-07	9/22/1980	4.59E-08	NES-139S	
184010	137Cs	1.00E-07	4/1/1966	3.16E-08	Rod	
184642	137Cs	1.00E-07	4/1/1971	3.55E-08	Rod	
Y-76	137Cs			1.00E-06	Rod	
Red	152Eu	5.00E-07		5.00E-07	Mallinckrodt	X2 sources
923	153Gd	2.50E-01	3/7/2007	1.80E-05	NES8412	Line
924	153Gd	2.50E-01	3/7/2007	1.80E-05	NES8412	Line
77050A5	153Gd	2.00E-02	11/1/2004	1.23E-07	NES8426-28	Line
77050A6	153Gd	2.00E-02	11/1/2004	1.23E-07	NES8426-28	Line
77050A7	153Gd	2.00E-02	11/1/2004	1.23E-07	NES8426-28	Line
77050A8	153Gd	2.00E-02	11/1/2004	1.23E-07	NES8426-28	Line
77051B5	153Gd	2.00E-02	5/1/2004	7.25E-08	NES8426-28	Line
77051B6	153Gd	2.00E-02	5/1/2004	7.25E-08	NES8426-28	Line
77051B7	153Gd	2.00E-02	5/1/2004	7.25E-08	NES8426-28	Line
77051B8	153Gd	2.00E-02	5/1/2004	7.25E-08	NES8426-28	Line
77052C5	153Gd	2.00E-02	11/1/2003	4.29E-08	NES8426-28	Line
77052C6	153Gd	2.00E-02	11/1/2003	4.29E-08	NES8426-28	Line
77052C7	153Gd	2.00E-02	11/1/2003	4.29E-08	NES8426-28	Line
77052C8	153Gd	2.00E-02	11/1/2003	4.29E-08	NES8426-28	Line
77053D5	153Gd	2.00E-02	5/1/2003	2.53E-08	NES8426-28	Line
77053D6	153Gd	2.00E-02	5/1/2003	2.53E-08	NES8426-28	Line
77053D7	153Gd	2.00E-02	5/1/2003	2.53E-08	NES8426-28	Line
77053D8	153Gd	2.00E-02	5/1/2003	2.53E-08	NES8426-28	Line
770548E6	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line
770548E6	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line
770548E7	153Gd	2.00E-02	11/1/2002	1.50E-08	NES8426-28	Line
770548E8	153Gd	2.00E-02	11/1/2002	1.50E-08	NES8426-28	Line
77055F5	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line
77055F6	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line

✓ 77055F7	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line
✓ 77055F8	153Gd	2.00E-02	5/1/2002	8.86E-09	NES8426-28	Line
✓ 77056G5	153Gd	2.00E-02	11/1/2001	5.26E-09	NES8426-28	Line
✓ 77056G6	153Gd	2.00E-02	11/1/2001	5.26E-09	NES8426-28	Line
✓ 77056G7	153Gd	2.00E-02	11/1/2001	5.26E-09	NES8426-28	Line
✓ 77056G8	153Gd	2.00E-02	11/1/2001	5.26E-09	NES8426-28	Line
✓ NEZ081	22Na	1.00E-04	4/28/1986	3.47E-08	Vial	
✓ Nitrate - 8170	232Th				Mallinckrodt	56.7g
✓ Thorotrast ThO2	232Th				Vial - Fellows	
✓ Acetate - 8632	238U				Mallinckrodt	9.5g
✓ C00226	238U				Nitrate - Bakers	100g
✓ 319-047-09	57Co	4.90E-03	8/12/1997	1.27E-10	NES-206	
✓ 1231-46-1	57Co	1.00E-04	6/1/2007	2.52E-08	Button	
✓ 1231-50-6	57Co	5.00E-05	6/1/2007	1.26E-08	Button	
57Co	5.00E-06	5/1/2011	4.93E-08	Button		
✓ Yellow	57Co	5.00E-06	6/1/2009	8.21E-09	Button	

Did Not Take ✓

✓ Purma Fix Drum # VHS-02

✓ 129I / Am 241 (mock 1-125)

0.000148

0.072 μCi no date Tube source.