45-09599-03
030-16045

OLD DOMINION UNIVERSITY

Office of Environmental Health and Safety
Hughes Hall Suite 2061
4807 Hampton Blvd.
Norfolk, VA 23529
757-683-4495

Facsimile Transmission Form

To:	Brian Parker	**From:**	Derek Krepp
Fax:	404-562-4728	**Pages:**	8
Phone:		**Date:**	January 13, 2005
Re:	Waste Disposal	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply**

• **Comments:**

NMSS/RGNI MATERIALS-002

136188

OLD DOMINION UNIVERSITY

OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY • Hughes Hall Suite 2061 • Norfolk, Virginia 23529 • Phone: (757) 683-4495 • Fax: (757) 683-6025

Occupational Safety & Health

Environmental Health

Laboratory Safety

Industrial Hygiene

Radiation Safety

Hazardous Waste

Pollution Prevention

Memorandum

Date: November 9, 2003

To: File

From: Derek S. Krepp
Radiation Safety Officer

Subject: PuBe Sources (3)

This memo is to document that on September 30, 2003, representatives from the Los Alamos National Laboratory removed and packed Old Dominion University's three sealed PuBe Sources (serial no. MRPUBE262, MRPUBE268 and MRPUBE306) into designated shipping containers for future disposal. The sources, now contained in two drums, were picked up from the University on March 5, 2004. They arrived at the Department of Energy's Los Alamos National Laboratory on March 11, 2004. This file contains the records and correspondence documenting this transaction.

Old Dominion University is an equal opportunity, affirmative action institution

Los Alamos
NATIONAL LABORATORY

Risk Reduction and Environmental Stewardship
Transuranic Waste Characterization Group
Off-Site Source Recovery (OSR) Project
P.O. Box 1663, Mail Stop: J552
Los Alamos, New Mexico 87545
505-667-6701/Fax: 505-665-7913

Date: March 23, 2004
Refer to: RRES-CH 04-086

Luis A. Reyes, Regional Administrator
Nuclear Regulatory Commission
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Suite 23T85
Atlanta, GA 30303-3415

Dear Mr. Reyes:

Enclosed please find a signed *Authorization to Transfer/Relinquishment of Custody* form concerning:

Old Dominion University
Hughes Hall, Room 2061
4807 Hampton Blvd.
Norfolk, VA 23529

The radioactive sources described on the form have been removed from Old Dominion University in Norfolk, VA and are in storage at Los Alamos National Laboratory. These sources have been transferred to Department of Energy (DOE) ownership and are being stored under DOE license exemption.

This action was completed as part of the Off-Site Source Recovery (OSR) Project managed by this office. If you need any further information on this action, please contact the OSR Project Office at 505/667-6701.

Sincerely,

Shelby Leonard

Shelby Leonard
Team Leader OSR Project

SL/lh

Cy: Derrek Krepp, Old Dominion University
Michele Burgess, NRC HQ
Robert Campbell, U.S. DOE, NA-20.2
Joel Grimm, DOE-AL/WMD
RRES-CH File / OSRP File

Doc#3257

Los Alamos
NATIONAL LABORATORY

ATRC # 2003:28

Off-Site Source Recovery Project
Authorization to Transfer/Relinquishment of Custody

SOURCE CUSTODIAN: Old Dominion University
CONTACT NAME: Derrek Krepp
ADDRESS: Hughes Hall, Room 2061
4807 Hampton Blvd.
Norfolk, VA 23529

TELEPHONE: (757) 683-5834
FAX: (757) 683-6025

Old Dominion University is authorized by the University of California at Los Alamos National Laboratory (UC/LANL), on behalf of the U.S. Department of Energy (DOE), to transfer the sealed source(s) indicated below to Los Alamos National Laboratory.

Old Dominion University hereby relinquishes and UC/LANL, on behalf of DOE, hereby accepts all ownership of the sealed source(s) indicated below upon receipt or acceptance by Los Alamos National Laboratory.

SOURCE INFORMATION

Type:	Model:	Serial No:	Date of Mfg:	Grams Isotopic:
239Pu/Be		MRPUBE262	8/19/1963	29.453
239Pu/Be		MRPUBE268	9/20/1963	29.453
239Pu/Be		MRPUBE306	7/31/1964	73.700

SOURCE CUSTODIAN:

OFFICIAL NAME/TITLE: DEREK KREPP — RSO
NAME (Please Print or Type) — TITLE (Please Print or Type)
SIGNATURE Derek Krepp — DATE 5-30-03

UC/LANL AUTHORIZATION:

OFFICIAL NAME/TITLE: Shelby J. Leonard, Team Leader, Off-Site Source Recovery Project
SIGNATURE Shelby J. Leonard — DATE 10-15-04

ACKNOWLEDGEMENT OF RECEIPT BY LANL:

OFFICIAL NAME/TITLE: J Mateke — Recovery Coordinator
NAME (Please Print or Type) — TITLE (Please Print or Type)
SIGNATURE [illegible] — DATE 5/15/04

Bionomics, Inc.

P.O. Box 817 — Kingston, TN 37763 — (865) 376-0053

February 3, 2003

Mr. Derek Krepp
Old Dominion University
Radiation Safety Dept
1300 W. 49th St.
Norfolk, VA 23529

RE: Sealed Sources

Dear Mr. Krepp:

This is to certify that the radioactive material picked up at your facility of August 5, 2002 on manifest number 080502-C has been disposed of at the Chem-Nuclear Waste Management Facility in Barnwell, South Carolina.

Please reference the following table for detailed disposal information.

Barnwell Manifest Number	Disposal Volume (ft^3)	Barnwell Shipment Number	Barnwell Disposal Date
1202-11604	.60	11604	1/8/03.

If you have any questions please feel free to contact me at (865) 376-0053.

Thank you,

Mia Hammonds

Mia Hammonds
Administrative Assistant

Cc: File

Radioactive Sealed Source Waste Disposal Record

Disposal Date 8/5/02

Isotope	Description	Initial Activity (mCi)	Date	Current Activity (mCi)	Current Activity (MBq)
109-Cd	(metal disk)	0.032	4/15/98	2.88E-03	1.07E-01
	Mossbauer (metal disk)	3	11/15/89	2.46E-03	9.09E-02
	Mossbauer (metal disk)	1	12/10/87	2.78E-04	1.03E-02
			Totals	5.62E-03	2.08E-01
Sn-119m	Mossbauer (metal disk)	5	4/15/98	1.21E-01	4.48E+00
	Mossbauer (metal disk)	0.004	4/15/98	9.69E-05	3.59E-03
			Totals	1.21E-01	4.48E+00
57-Co	Mossbauer (plastic disk)	0.018	4/15/98	3.26E-04	1.21E-02
	Mossbauer (plastic disk)	0.014	4/23/97	1.02E-04	3.77E-03
	(metal disk)	10	1/28/89	3.40E-05	1.26E-03
	(metal disk)	1	1/13/92	5.34E-05	1.98E-03
	(metal disk)	5	7/1/91	1.62E-04	5.99E-03
			Totals	6.77E-04	2.50E-02
90-Sr	(metal disk)	25	6/19/75	1.30E+01	4.81E+02
Am-241	20 metal disk	0.028	8/1/02	2.80E-02	1.04E+00

APPROVED BY OMB: NO. 3150-0164
EXPIRES: 06/31/2001

Estimated burden per response to comply with this information collection request: 1.17 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the same transportation and disposal of low-level waste. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0164), Office of Management and Budget, Washington, DC 20503. If 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 540 (5-1999)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 8(0)[illegible]

ORGANIZATION: [illegible]

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? [X] YES [ ] NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? [ ] YES [X] NO
If "Yes," provide Manifest Number:

EPA MANIFEST NUMBER: N/A

5. SHIPPER – NAME AND FACILITY: Old Dominion Univ. 1300 W. 49th St. Norfolk, VA 23529

SHIPPER I.D. NUMBER

COLLECTOR

PROCESSOR

USER PERMIT NUMBER

SHIPMENT NUMBER

GENERATOR TYPE (Specify): 4

CONTACT: Lorri L. Kepp

TELEPHONE NUMBER (Include Area Code): 757 683-4173

6. CARRIER – Name and Address: [illegible] 2515 [illegible] State [illegible] Hampton, VA 23666

EPA I.D. NUMBER: [illegible]

SHIPPING DATE: [illegible]

CONTACT: [illegible]

TELEPHONE NUMBER (Include Area Code): [illegible]

SIGNATURE – Authorized carrier acknowledging waste receipt: [illegible]

DATE: [illegible]

7. NRC FORM 540 AND 540A / NRC FORM 541 AND 541A / NRC FORM 542 AND 542A / ADDITIONAL INFORMATION — PAGE 1 OF 1 PAGE(S); [ ] PAGE(S); [ ] PAGE(S); [ ] PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 05502-C

9. CONSIGNEE – Name and Facility Address: [illegible] 2515 [illegible] State [illegible] Hampton, VA 23666

CONTACT: Tommy [illegible]

TELEPHONE NUMBER (Include Area Code): 804-251-1791

SIGNATURE – Authorized consignee acknowledging waste receipt

DATE

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 are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.

AUTHORIZED SIGNATURE: [illegible]

TITLE: ICSO

DATE: 8 5 02

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 IN SI UNITS	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
Radioactive Material, [illegible]	Yellow-II	0.1	[illegible]	Co-60	Co-60	[illegible]	[illegible]	N/A	[illegible]	[illegible]
7 [illegible]				Co-60	Mn-54					

FOR CONSIGNEE USE ONLY

NRC FORM 540 (5-1999)

SHIPPER COPY

APPROVED BY OMB: NO. 3150-0166
EXPIRES: 06/31/2001

Estimated burden per response to comply with this information collection request: 0.43 hours. The uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low waste. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0166), Office of Management Budget, Washington, DC 20503. If 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 (9-1999)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS							2. MANIFEST NUMBER
NUMBER OF PACKAGES OR CONTAINERS	NET WASTE VOLUME (m³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	TOTAL	080502-C
1	0.009	22.67	∅	∅	∅	∅	3. PAGE 1 OF 1 PAGE
ALL NUCLIDES	TRITIUM	ACTIVITY (MBq) C-14	Tc-99	I-129	SOURCE (kg)		4. SHIPPER NAME
436.234	∅	∅	∅	∅	∅		DOE [illegible]

SHIPPER ID NUMBER

DISPOSAL CONTAINER DESCRIPTION							WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER						
5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (mSv/hr) γ / (mSv/hr) β	10. SURFACE CONTAMINATION MBq/100 cm² ALPHA	BETA-GAMMA	PHYSICAL DESCRIPTION 11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER	13. SORBENT SOLIDIFICATION, STABILIZATION, MEDIA (See Note 3)	14. CHEMICAL DESCRIPTION CHEMICAL FORM CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. RADIOLOGICAL DESCRIPTION INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	16. WASTE CLASS
DOU-02-[illegible]	4	0.019	22.67	[illegible]	[illegible]	[illegible]	34	0.009	NO.	OXIDE = NP	NP	Cd 1.4 = 0.204 Ni 1.4 = 4.53 Cs 47 = 0.0853 Sr 9.. = 481.[illegible] Am 34. = 1.34 TOTAL = 436.8034	C

NOTE 1: Container Description Codes. For combustible waste requiring disposal in approved structural overpacks, the numerical code must be followed by "-OP."

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

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

20. Charcoal
21. Inorganic Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Dried Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Shielded Sources/Cobalt
37. Filter or Filtrate
38. Evaporator Bottoms/Sludges/Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in Item 11, or additional page

Note 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100-SCHEME REQUIRED.

Sorption

61. Spent Oil
62. Fuel Oil Superfine
63. HI Oil
64. Safe T Sorb
65. Safe N Oil
66. Flame
67. Flame X
68. Chemsil 30
69. Chemsil 50
70. Chemsil 3000
72. Chemsil HP200
73. Chemsil HP300
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset I
79. Other. Describe in Item 13, or additional page

Solidification

90. Cement
91. Concrete (incompatible)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styr
99. Other. Describe in Item 13, or additional page
100. None Required

NRC FORM 541 (9-1999)

SHIPPER COPY