

Rad. Waste Ship

WASTE #10

BOX 168136

AVOID VERBAL ORDERS



TO	DEPT	FROM	DEPT	DATE
[REDACTED]	185R	[REDACTED]	541	5/17/8
		<input type="checkbox"/> ACTION	<input type="checkbox"/> NOTE & RETURN	
		<input type="checkbox"/> INFORMATION	<input type="checkbox"/> NOTE & FILE	
		<input type="checkbox"/> SIGNATURE	<input type="checkbox"/> FORWARD	

SUBJECT

REMARKS

5 panels with 1" square plates
mass of Nickel 63 - Beta Radiation

Readings at contact with plastic bag inside
Readings at outside of lid of module
bag - Background.

PLEASE READ INSTRUCTIONS ON BACK CAREFULLY

BOX 168136

1. FORM NUMBER
S, 8, 4, 2965

LOS ALAMOS RADIOACTIVE SOLID WASTE DISPOSAL RECORD FORM

HSE-7 Waste Management
Ext 6095 MS J592

2. DATE M M D D Y Y 5, 1, 6, 8, 4	3. RETRIEVABLE SERIAL NO. 	4. ORIGIN OF WASTE GROUP TA BLDG. WING ROOM B, E, N, D, X 9, 9	5. WASTE CODE A, 1, 6, 1
---	-------------------------------	--	-----------------------------

6. WASTE DESCRIPTION
B, O, X, I, N, O, I, M, I, S, C, I, C, I, A, S, S, D, E, S, I, G, N, A, S, I, S, I, S, I, & I, S, A, I, S

7. NUMBERS OF WASTE PACKAGES				8. GROSS VOLUME		9. PACKAGE RADIATION AT:	
PLASTIC BAGS	CARD BOARD BOXES	DRUMS NO.	GAL.	WOODEN CRATES NO.	VOLUME-ft ³	SURFACE MR/HR	1 METER MR/HR
				1	1, 9, 1	B, K, G	B, K, G

M = METER³
F = FEET³
G = GALLON

10. GROSS WEIGHT	UNITS	11. ADDITIONAL DESCRIPTION OF PACKAGING AND PACKAGING MATERIALS
4, 6, 1	P	C, O, N, T, E, N, T, S, P, K, G, I, N, S, E, A, L, E, D, I, D, I, O, T, I, 7, C, I, D, R, U, M

K = KILOGRAM
P = POUND
T = TON

12. RADIONUCLIDE CONTENT			UNITS	C = CURIE M = GRAM		AMOUNT DETERMINED BY: A = ANALYSIS M = MEASUREMENT E = ESTIMATE	SS MATERIALS WRITEOFF	
NUCLIDE	AMOUNT	+		ERROR ON AMOUNT	+		ACCOUNT	PROJECT CODE
K, 1, 8, 5		E		E				
N, 1, 6, 3	1, 5	E	-1, 7 C		E	E		
M, A, P		E		E				
P, m, 1, 4, 7		E		E				
		E		E				
		E		E				

WASTE GENERATOR: [Signature] AREA REPRESENTATIVE: [Signature] GROUP LEADER (AS NECESSARY): [Signature]

Signature certifies that waste is in accordance with all applicable disposal requirements. Signature certifies that waste package or shipment is safe to handle and transport.

13. DATE DISPOSED M M D D Y Y 	14. DISPOSAL/STORAGE LOCATION AREA SHAFT PIT POST(S) LAYER DPs 	15. SHAFT SURFACE DOSE MR/HR
--------------------------------------	---	-------------------------------------

HSE-7 WASTE MANAGEMENT REPRESENTATIVE: [Signature]



Kansas City
Division
KCD-2184
(4-76)

3 per shipment

130X - 1

RADIOACTIVE MATERIAL PACKING INFORMATION

Date Shipped: 6-14-84
Shipper No.: KD 404366

From: THE BENDIX CORPORATION
2000 East Bannister
P. O. Box 1159
Kansas City, Missouri 64141

Shipped to: *Univ of Calif*
Los Alamos Nat'l Lab
Bldg SM-30
Los Alamos, New Mex 87544

Ship Via	No. of Pkgs.	Fissile Class (I, II, III)	Transport		Radioactive Label
			Group	Index	
<i>Ross Air</i>	<i>1</i>	<i>"N. A."</i>	<i>See Below</i>	<i>BKG</i>	<i>WHITE I</i>

REMARKS:

The above shipment is properly described, packed, marked, and is in proper condition for transportation according to regulations prescribed by the ERDA, the DOT, and the FAA where applicable.

Shipping _____ Date 6-14-84

Principal Radioactive Material	Chemical Form	Activity (Curies)
<i>See Below</i>	<i>See Below</i>	<i>TOTAL .0000005</i>

Radiation Survey Data:

Radiation level at surface of primary container - mr/hr gamma.
 Radiation level at surface of outside container BKG mr/hr gamma.
 Radiation level at one meter from outer surface BKG mr/hr gamma.
 Radiation dose at contact with contents - mrad (beta & gamma) - cpm (alpha)

REMARKS: *Box #1:*

	CURIES
<i>1. KRYPTON-85, SOLID, GROUP VI -</i>	<i>UNKNOWN</i>
<i>2. NICKEL-63, SOLID, GROUP IV -</i>	<i>.0000005 Curies</i>
<i>3. MAP, SOLID, - - -</i>	<i>UNKNOWN</i>
<i>4. PROMETHIUM-147, SOLID, GROUP IV -</i>	<i>UNKNOWN</i>

No contamination in excess of permissible levels as indicated by instrument check, or by wipe on surface of packaging.

Environmental and Health Services _____ Date 6-14-84

Extra Copy
5-7-74

Box #1

Radioactive Waste Classified

Contents

<u>Part Number</u>	<u>Description</u>	<u>Qty.</u>
1425203 - 20 (1) 30 (4) 31 (1)	Krypton or Curium unknown MC 991	6
211236-02	Gas Tubes have been exploded MC 1793-Irradiated-Curium Unknown	6
314003-00	Gas Tubes - exploded MC 2802-Irradiated-Curium Unknown	2
311801-00	Gas Tubes - exploded MC 1850-Irradiated-Curium Unknown	4
311668-102	2 electron tubes, No 99 MC 1737-Nickel 63 coating	2
311188-00	2 electron tubes + 199 MC 1380 Nickel-63 coating	1
312834	Nickel - C-3 MC 2534 0.15 microcuries	3
→ No P/N -	Kimwipes used on 147 Misc. Scrap from D/442	1 small box
211193 - Mc 936	MC 1659 Irradiated - Curium Unknown	
No P/N (SN 2463 + 3302)	MC 2429 - Irradiated - Curium Unknown	
211188 MC 99	switches have been fired MC 1656 - Irradiated Curium Unknown	
1439941-4	Squid (Has been fired) MC 1793 - Irradiated - Curium Unknown	
311751-02	MC 1804 - Irradiated - Curium Unknown	
311910-00	MC 1938 " " " 1	
311753-02	MC 1806 " " " 1	
142407-00	None Available " " " 1	

from
B/50

Weight - 461 lbs.
Size - 43" x 28½" x 27"

KCD 514# 1555, 1556 and 1557

RADIOACTIVE MATERIAL PACKING INFORMATION

From: THE BENDIX CORPORATION
2000 East Bannister
P. O. Box 1159
Kansas City, Missouri 64141

Date Shipped: 6-14-84
Shipper No.: KD-404367

Shipped to: Univ of Calif -
Los Alamos Nat'l Lab
Bldg. 4M-30
Los Alamos, New Mex - 87544

Ship Via	No. of Pkgs.	Fissile Class (I, II, III)	Transport		Radioactive Label
			Group	Index	
<u>Ross</u> <u>AIR</u>	<u>1</u>	<u>"N.A."</u>	<u>See</u> <u>Below</u>	<u>BKG</u>	<u>WHITE I</u>

REMARKS:

The above shipment is properly described, packed, marked, and is in proper condition for transportation according to regulations prescribed by the ERDA, the DOT, and the FAA where applicable.

Shipping

Date

6-14-84

Principal Radioactive Material	Chemical Form	Activity (Curies)
<u>See Below</u>	<u>See Below</u>	<u>TOTAL .0013</u>

Radiation Survey Data:

Radiation level at surface of primary container - mr/hr gamma.
Radiation level at surface of outside container BKG. mr/hr gamma.
Radiation level at one meter from outer surface BKG. mr/hr gamma.
Radiation dose at contact with contents - mrad (beta & gamma) - cpm (alpha)

REMARKS: Box # 2

				<u>CURIES</u>
<u>1. KRYPTON-85,</u>	<u>SOLID -</u>	<u>GROUP VI =</u>	<u>.0004</u>	<u>Curies</u>
<u>2. MAP</u>	<u>, SOLID -</u>	<u>- =</u>	<u>UNKNOWN</u>	
<u>3. NICKEL-63,</u>	<u>SOLID -</u>	<u>GROUP IV =</u>	<u>UNKNOWN</u>	
<u>4. AMERICIUM-241,</u>	<u>SOLID -</u>	<u>GROUP I =</u>	<u>.0001</u>	<u>Curies</u>
<u>5. PROMETHIUM-147,</u>	<u>SOLID -</u>	<u>GROUP IV =</u>	<u>.0004</u>	<u>Curies</u>
<u>6. RADIUM-226,</u>	<u>SOLID -</u>	<u>GROUP I =</u>	<u>.0004</u>	<u>Curies</u>
<u>7. THALLIUM-204,</u>	<u>SOLID -</u>	<u>GROUP III =</u>	<u>.00031</u>	<u>Curies</u>

No contamination in excess of permissible levels as indicated by instrument check, or by wipe on surface of packaging.

Environmental and Health Services

Date

6-14-84

8. STRONTIUM-90 - SOLID - GROUP II = .00013 Curies
9. POLONIUM-210 - SOLID - GROUP II = .0005 Curies

1. FORM NUMBER
S 8 4 3966

LOS ALAMOS RADIOACTIVE SOLID WASTE
DISPOSAL RECORD FORM

HSE-7 Waste Management
Ext 6095 MS J592

2. DATE
M M D D Y Y
5 1 6 8 4

3. RETRIEVABLE SERIAL NO.
| | | | |

4. ORIGIN OF WASTE

GROUP	TA	BLDG.	WING	ROOM
B E I N D I X	9 1 9			

5. WAST CODE
A 1 6 1 1

6. WASTE DESCRIPTION

B O X 1 N O 2 1 D E S I G N A I S I S Y S I S A I S I S O U R I C E I S I & I T U B E I

7. NUMBERS OF WASTE PACKAGES

PLASTIC BAGS	CARD BOARD BOXES	DRUMS		WOODEN CRATES	
		NO.	GAL.	NO.	VOLUME-ft ³

8. GROSS VOLUME

VOLUME	UNITS
1 9 1	F

M = METER³
F = FEET³
G = GALLON

9. PACKAGE RADIATION AT

SURFACE MR/HR	1 METER MR/HR
B K G	B K G

10. GROSS WEIGHT

WEIGHT	UNITS
2 3 2	P

K = KILOGRAM
P = POUND
T = TON

11. ADDITIONAL DESCRIPTION OF PACKAGING AND PACKAGING MATERIALS

C O N T E N T S P K I G I I N I S E A L E D D O T 1 7 C D R U M

12. RADIONUCLIDE CONTENT				C = CURIE M = GRAM		AMOUNT DETERMINED BY: A = ANALYSIS M = MEASUREMENT E = ESTIMATE			SS MATERIALS WRITEOFF		
NUCLIDE	AMOUNT	±	UNITS	ERROR ON AMOUNT		±				ACCOUNT	PROJECT CODE
T 1 2 0 4	3 1 0	E - 1 4	C		E		E				
S r 9 0	1 3 0	E - 1 4	C		E		E				
P 0 2 1 0	5 0 0	E - 1 4	C		E		E				
		E			E		E				
		E			E		E				
		E			E		E				

WASTE GENERATOR
Signature certifies that waste is in accordance with all applicable disposal requirements.

FIELD AREA REPRESENTATIVE
Signature certifies that waste package or shipment is safe to handle and transport.

GROUP LEADER (AS NECESSARY)

13. DATE DISPOSED
M M D D Y Y
| | | | |

14. DISPOSAL/STORAGE LOCATION

AREA	SHAFT	PIT	POST(S)	LAYER	POS

15. SHAFT SURFACE DOSE
MR/HR
| | |

HSE-7 WASTE MANAGEMENT REPRESENTATIVE _____

Radioactive Waste Unclassified

Contents

	Description	Qty.
	Gap Tubes <i>Kupfer (2x178)</i> 356 microcuries	178 each
	SA 2625 - IRRADIATED Comp - BKG - Curies Unknown	30 each
<i>From P/SO</i>	MC 1667 - 311563 - Irradiated - Curies Unknown	1 each
	MC 1522 - 311410 " " "	1 each
	SA 1909 - 215296 " " "	3 each
	MC 1592 - 311410 " " "	1 each
	MC 824 Test Fixture - w/ Part No. Nickel 63 - Curies Unknown	1 each
	MC 656 Leak Test Fixture. No Part No. Nickel 63 - Curies Unknown	1 each
<i>From P/SO</i>	MC 1515A - 311501 - Irradiated - Curies Unknown	1 each
	CF 1831 - 215154 - Irradiated - Curies Unknown	1 each
	AM 241 Source - 100 microcuries	1 each
<i>From P/SO</i>	224440 Parts (No Mecc SA) Irradiated - Curies Unknown	1 each
	224337 " " "	1 each
	271278 " " "	1 each
	SA 2383 - Semiconductor - Irradiated Comp. BKG	30 each
	Source S/N 25827 - PM-147 - 50 microcuries	1 each
	Source S/N 8208 - Radium D - 10 microcuries	1 each
	Source S/N 6733 - Thallium 204 - 100 microcuries	1 each
	Source S/N 4225 - PM 147 - 75 microcuries	1 each
	Source S/N 6958 - Thallium 204 - 100 microcuries	1 each
	Source S/N 9171 - Strontium 90 - 10 microcuries	1 each
	Source S/N 9176 - Strontium 90 - 10 microcuries	1 each
	Source S/N 4A59 PM-147 - 75 microcuries	1 each
	Source S/N 8192 Radium D - 10 microcuries	1 each
	Source S/N 8227 - Radium D - 10 microcuries	1 each
	Source S/N 14508 - PM-147 - 50 microcuries	1 each
	Source S/N 16084 - Thallium 204 - 100 microcuries	1 each
	Source S/N 19093 - Strontium 90 - 25 microcuries	1 each
	Source S/N 14559 - Promethium 147 - 75 microcuries	1 each
	Semiconductor Irradiated - SA 2383 - Curies Unknown	1 each
	MC 3509 - 317662 - gap tube - Curies Unknown	1 each
	SA 1969 - Irradiated Comp. BKG - Curies Unknown	211 each
	Tube from MC 1185A - 310837 - Forest. Gap Tubes	5 each
	Strontium Chloride Merck - 1 lb.	1 lb.
	NI 63 Test Patcher - 5 panels with 1" square plates of Nickel 63 - microcuries unknown	5 each
	NI 63 Gap Tube 4 microcuries	2 each
	Model 2 U500 Anti Static Device Polonium 210 500 microcuries	1 each
	SA 2773 - 316995 - Irradiated Comp. BKG	202 each
	Thallium Source - 10 microcuries	1 each
	Promethium Source - 75 microcuries	1 each
	Strontium Source - 75 microcuries	1 each
	Radium Source - 6 microcuries	1 each
<i>From P/SO</i>	Encapsulated Source - 335005 - Irradiated BKG	1 each

Weight - 232 lbs.
 Size - 43" x 28 1/2" x 27"

RADIOACTIVE MATERIAL PACKING INFORMATION

From: THE BENDIX CORPORATION
2000 East Bannister
P. O. Box 1159
Kansas City, Missouri 64141

Date Shipped: 6-14-84
Shipper No.: KD-404367

Shipped to: Univ. of Calif -
Los Alamos Nat'l Lab
Bldg. SM-30
Los Alamos, New Mex 87544

Ship Via	No. of Pkgs.	Fissile Class (I, II, III)	Transport		Radioactive Label
			Group	Index	
<u>Ross</u>					
<u>Air</u>	<u>1</u>	<u>"N.A."</u>	<u>See Below</u>	<u>BK6</u>	<u>WHITE I</u>

REMARKS:

The above shipment is properly described, packed, marked, and is in proper condition for transportation according to regulations prescribed by the ERDA, the DOT, and the FAA where applicable.

Shipping
6-14-84
Shipping
Date

Principal Radioactive Material	Chemical Form	Activity (Curies)
<u>See Below</u>	<u>See Below</u>	<u>TOTAL 13.002</u>

Radiation Survey Data:

Radiation level at surface of primary container - mr/hr gamma.
 Radiation level at surface of outside container BK6 mr/hr gamma.
 Radiation level at one meter from outer surface BK6 mr/hr gamma.
 Radiation dose at contact with contents - mrad (beta & gamma) - cpm (alpha)

REMARKS: Box # 3

CURIES

- | | | | |
|-------------------|---------|-----|--------------------------|
| 1. MAP | - SOLID | - - | UNKNOWN |
| 2. Hg | - SOLID | - | GROUP IV = 13 curies |
| 3. AMERICIUM-241 | - SOLID | - | GROUP I = .00016 curies |
| 4. PROMETHIUM-147 | - SOLID | - | GROUP IV = .0013 curies |
| 5. THALLIUM-204 | - SOLID | - | GROUP III = .0003 curies |
| 6. STRONTIUM-90 | - SOLID | - | GROUP II = .00005 curies |
| 7. RADIUM-226 | - SOLID | - | GROUP I = .00002 curies |

No contamination in excess of permissible levels as indicated by instrument check, or by wipe on surface of packaging.

Environmental and Health Services
6-14-84
Environmental and Health Services
Date

1. FORM NUMBER
S, 8, 4, 3967

LOS ALAMOS RADIOACTIVE SOLID WASTE
DISPOSAL RECORD FORM

HSE-7 Waste Management
Ext 6095 MS J592

2. DATE M M D D Y Y 5, 1, 6, 8, 4	3. RETRIEVABLE SERIAL NO. 	4. ORIGIN OF WASTE GROUP TA BLDG. WING ROOM B, E, N, D, X 9, 9	5. WAST CODE A 1 6 1 1
---	-------------------------------	--	---------------------------

6. WASTE DESCRIPTION
B O X , N O , 3 , D E S I G N A S I S Y S , I S / A I S I , I S O L U B I C I E S I & I T U B E I

7. NUMBERS OF WASTE PACKAGES				8. GROSS VOLUME		9. PACKAGE RADIATION AT:			
PLASTIC BAGS	CARD BOARD BOXES	DRUMS NO.	DRUMS GAL.	WOODEN CRATES NO.	WOODEN CRATES VOLUME-ft ³	M = METER ³ F = FEET ³ G = GALLON	UNITS	SURFACE MR/HR	1 METER MR/HR
								B, K, G,	B, K, G,

10. GROSS WEIGHT	UNITS	11. ADDITIONAL DESCRIPTION OF PACKAGING AND PACKAGING MATERIALS
2, 0, 8, 9	P	C O N T E N T S P K I G I I N I S E A L E D I D I O T I I Z I C I D R U M

K = KILOGRAM
P = POUND
T = TON

NUCLIDE	AMOUNT	±	UNITS	C = CURIE M = GRAM		AMOUNT DETERMINED BY: A = ANALYSIS M = MEASUREMENT E = ESTIMATE	SS MATERIALS - WRITEOFF	
				ERROR ON AMOUNT	±		ACCOUNT	PROJECT CODE
M, A, P,		E			E			
H, 3,	1, 3, 0,	E	+1 C		E		E	
A, m, 2, 4, 1, 1	1, 6, 0,	E	-4 C		E		E	
P, m, 1, 4, 7	1, 3, 8,	E	-3 C		E		E	
T, 1, 2, 0, 4	2, 7, 5,	E	-4 C		E		E	
S, r, 9, 0,	5, 0, 0,	E	-5 C		E		E	

WASTE GENERATOR
Signature certifies that waste is in accordance with all applicable disposal requirements.

HSE-7 AREA REPRESENTATIVE
Signature certifies that waste package or shipment is safe to handle and transport.

GROUP LEADER (AS NECESSARY)

13. DATE DISPOSED M M D D Y Y 	14. DISPOSAL/STORAGE LOCATION AREA SHAFT PIT POST(S) LAYER POS. 	15. SHAFT SURFACE DOSE MR/HR
--------------------------------------	--	-------------------------------------

HSE-7 WASTE MANAGEMENT REPRESENTATIVE

Box #3

Radioactive Waste Unclassified

Contents

<u>Description</u>	<u>Qty.</u>
SA 2325 - Irradiated Comp. BKG Curies Unknown	721 each
SA 1969 - Irradiated Comp. BKG " "	52 each
SA 2624 - Irradiated Comp. BKG " "	210 each
SA 2327 - Irradiated Comp. BKG " "	250 each
SA 2623 - Irradiated Comp. BKG " "	79 each
SA 2458 - Irradiated Comp. BKG " "	20 each
SA 2627 - Irradiated Comp. BKG " "	158 each
SA 2625 - Irradiated Comp. BKG " "	118 each
→ Tritium Exit Light - Tr. Tium - 12.5 curies	1 each
Kamon Tube for Neutron Generator 0.5 Ci, Tritium	1 each
A 5517 - Detector - Americium-241 80 microcuries	1 each
A 5518 - Detector - Americium-241 80 microcuries	1 each
Leak Tester - Promethium-147 - 50 microcuries	1 each
CE 14570 S/N C2761 - Promethium-147, 600 microcuries	1 each
CE 14567 S/N C3258 - Promethium-147, 600 microcuries	1 each
CE 14566 S/N C2699 - Thallium-204, 50 microcuries	1 each
S/N 9175 Source - Strontium-90, 25 microcuries	1 each
S/N 8076 Source - Radium-D, 10 microcuries	1 each
S/N 6A88 Source - Thallium-204, 100 microcuries	1 each
S/N 9012 Source - Strontium-90, 25 microcuries	1 each
S/N 6A32 Source - Thallium-204, 75 microcuries	1 each
S/N 8154 Source - Radium D, 10 microcuries	1 each
S/N 4930 Source - Promethium-147, 50 microcuries	1 each
S/N 4800 Source - Promethium-147, 75 microcuries	1 each
S/N 23270 Source - Thallium-204, 50 microcuries	1 each

Weight - 208 lbs.

Size - 43" x 28½" x 27"