

MATERIALS LICENSE

Amendment No. 13

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

OFFICIAL RECORD COPY

<p>Licensee Department of the Army 1. U.S. Army Communication-Electronics Command  2. AMSEL-SF Fort Monmouth, New Jersey 07703-5024</p>	<p>In accordance with the letter dated February 28, 1997, 3. License Number 29-01022-14 is amended in its entirety to read as follows:  4. Expiration Date October 31, 2003  5. Docket or Reference No. 030-29741</p>
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6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
A. Cobalt 60	A.	A.
B. Cobalt 60	B.	B.
C. Cobalt 60	C.	C.
D. Krypton 85	D.	D.
E. Strontium 90	E.	E.
F. Strontium 90	F. Sealed sources (ECOM Dwg. No. SM-B-509048)	F. Not to exceed 150 microcuries per source and 45 millicuries total
G. Strontium 90 Information in this record was deleted in accordance with the Freedom of Information Act, exemptions <u>2</u> FOIA <u>2006-0238</u>	G.	G.
H. Strontium 90	H. Sealed sources (3M Dwg., No. 12-1921-0474-8)	H. Not to exceed 36 microcuries per source and 18 millicuries total
I. Cesium 137	I.	I.

100154



LL/23

ML 10

EX 2

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

29-01022-14

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J. Cesium 137	J. Sealed sources (JLS and Assoc. Type 6810, JLS and Assoc. Dwg. No. A-0096-C)	J. Not to exceed 130 curies per source and 2600 curies total
K. Plutonium 239	K. Electroplated sources (Eberline Instrument Corp., Model 594-1)	K. Not to exceed 23 micrograms (1.4 microcuries) per set and 0.0115 grams total
L. Americum 241	L. Sealed sources (Amersham Radiochemical Center, Amersham Code 2084)	L. Not to exceed 10 millicuries per source and 50 millicuries total
M. Americum 241	M. Sealed sources (Amersham Model AMR 8122)	M. Not to exceed 1 microcurie per source and 100 microcuries total
N. Americum 241	N. Sealed sources (Amersham Model AMRB 8152)	N. Not to exceed 10 microcuries per source and 50 microcuries total
O. Americum 241	O. Sealed sources (Amersham Model AMRB 1659)	O. Not to exceed 20 microcuries per source and 100 microcuries total
P. Thorium 230	P. Electroplated source (Eberline Instrument Corp., Model No. CS-12)	P. Not to exceed 0.98 micrograms (20 nanocuries) per source and 1 milligram total
Q. Thorium 232	Q. Metal foils	Q. Not to exceed 2.7 grams (300 nanocuries) per source and 4.05 kilograms total
R. Plutonium 239	R. Electroplated sources (Eberline Instrument Corp., Model No. CS-1)	R. Not to exceed 163 nanograms (10 nanocuries) per source and 1 gram total
S. Thorium 232	S. Solid (Thorium Flouride coating on optical systems)	S. Not to exceed 3 grams (0.330 microcuries) per optical system and 40 kilograms total

9. Authorized use

- A. through R. Calibration and operational checking of radiation detection instrumentation.
- S. Optical coating on thermal imaging devices.

CONDITIONS

- 10. Licensed material may be used only at the licensee's facilities located at Fort Monmouth, New Jersey, and at Department of Defense installations anywhere in the United States.

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11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have completed the training described in application dated July 20, 1992, with enclosures.
- B. The Radiation Safety Officer for this license is Joseph M. Santarsiero.
12. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
  - (ii) they contain only a radioactive gas; or
  - (iii) the half-life of the isotope is 30 days or less; or
  - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
  - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Director, Division of Nuclear Materials Safety, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.

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- G. The licensee is authorized to collect leak test samples for analysis by licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
- 13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
- 14. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
- 15. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
- 16. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
- 17. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
  - A. Memorandum of Understanding dated June 22, 1990
  - B. Application dated July 20, 1992
  - C. Letter dated June 15, 1993
  - D. Letter dated April 6, 1994
  - E. Letter dated February 28, 1997

Date APR - 3 1997

For the U.S. Nuclear Regulatory Commission

**ORIGINAL SIGNED BY:**

**JUDITH A. JOUSTRA**

By

Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406

APR - 3 1997

Mr. Steven A. Horne  
Director, Safety Risk Management  
Department of the Army  
U.S. Army Communications-Electronics Command  
AMSEL-SF  
Fort Monmouth, New Jersey 07703-5024

Dear Mr. Horne:

This refers to your license amendment request. Enclosed with this letter is the amended license. Please note that as part of this amendment, in accordance with 10 CFR 30.36, effective February 15, 1996, the expiration date of your license has been extended by a period of five years. Your new expiration date is stated in Item 4 of the license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

**ORIGINAL SIGNED BY:  
JUDITH A. JOUSTRA**

Judith A. Joustra  
Division of Nuclear Materials Safety

License No. 29-01022-14  
Docket No. 030-29741  
Control No. 124349

Enclosure:  
Amendment No. 13

OFFICIAL RECORD COPY

ML 10

S. A. Horne  
Department of the Army

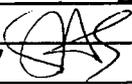
-2-

cc:  
Commander, U.S. Army Material Command  
ATTN: AMCSF-P  
5001 Eisenhower Aveune  
Alexandria, Virginia 22333-0001

OFFICIAL RECORD COPY

DOCUMENT NAME: R:\WPS\MLTR\L2901022.14

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	JJoustra						
DATE	04/03/97		04/ /97	04/ /97		04/ /97	

OFFICIAL RECORD COPY



DEPARTMENT OF THE ARMY

HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND  
AND FORT MONMOUTH

FORT MONMOUTH, NEW JERSEY 07703-5000

REPLY TO  
ATTENTION OF

28 February 1997

030-29741

U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

ATTN: Ms. Jenny M. Johansen  
Nuclear Materials Safety Branch  
Division of Radiation Safety and Safeguards

Dear Ms. Johansen:

This refers to Amendment Number 12, dated 24 May 1994, to U.S. Nuclear Regulatory Commission (NRC) License Number 29-01022-14, Docket Number 030-29741, Control Number 119706.

We are requesting that Condition 6.L., 7.L., 8.L. and 9.L. be deleted from this license. These conditions authorize the receipt, possession, use and transfer of 300 each AN/UDM-7C Radiac Calibrator Sets throughout the Department of the Army.

We have recently disposed of 291 each AN/UDM-7C Calibrators that were in bulk storage at Letterkenny Army Depot, Chambersburg, PA, in coordination with the Chem-Nuclear Consolidation Facility, Barnwell, South Carolina. Nine each calibrators were previously transferred to authorized recipients; eight each to the U.S. Air Force, authorized under NRC License Number SNM-1184; one each to the National Institute of Standards and Technology (formerly the National Bureau of Standards), under NRC License Number SNM-362.

Enclosures 1 through 3 are the supporting documentation provided as evidence of disposal/transfer of these calibrators.

Our Point of Contact is Mr. Barry J. Silber, Facsimile on (908) 542-7161/532-6403 or Voice on (908) 427-4427/3112, ext. 6440.

Sincerely,

Steven A. Horne  
Director, Safety  
Risk Management

1 2 4 3 4 9

Enclosures

OFFICIAL RECORD COPY

ML 10

MAR - 6 1997

Copy Furnished:

Commander, U.S. Army Materiel Command, ATTN: AMCSF-P, 5001  
Eisenhower Avenue, Alexandria, Virginia 22333-0001

FACILITY: Letterkenny Army Depot  
 ADDRESS: AMSTO-Dmw

F.O. BOX 020  
 Highway 64 (1 mile west of Snelling)  
 Bamwell, S.C. 29812  
 803-259-1119

001 E 11513

TELEPHONE 800-343-2004 SHIPPING DATE 10-30-96

CITY Rock Island STATE IL ZIP CODE 61299-6000

RADIOACTIVE SHIPMENT MANIFEST FORM

(3) RADIOACTIVE WASTE TRANSPORTATION PERMIT NO.

0137-00-96E

CONTACT: Kelly Crooks PHONE (309) 792-0338

EMERGENCY RESPONSE CONTACT: CNSE  
 PHONE (303) 259-6069

(4) USE THIS NUMBER ON ALL CONTINUATION PAGES SITE CLEARANCE NUMBER PAGE 1  
SCN 0214-96 OF 3

SHIPMENT TYPE VAN SHIPMENT SURFACE EXPOSURE 4 mR/hr

CASK IDENTIFICATION NO. NA USA 1/1

SHIPMENT NO. USA 96-099 LINER TYPE NA

LINER SERIAL NO. NA

DRIVER SIGNATURE Robert [Signature] DATE 10-30-96

(6) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	I.D. NUMBER	Reportable Quantity or Fissile Excepted
NO. OF PACKAGES	WEIGHT (POUNDS)			
		Radioactive Material, excepted package - empty packaging: 7	UN2910	
		Radioactive Material, fissile, n.o.s.: 7	UN2918	
		Radioactive Material, LSA, n.o.s.: 7	UN2912	
<u>23</u>	<u>6180</u>	Radioactive Material, n.o.s.: 7	UN2982	<u>RA/Fissile excepted</u>
		Radioactive Material, excepted package - limited quantity of material: 7	UN2910	
		Radioactive Material, special form, n.o.s.: 7	UN2974	
		Radioactive Material, surface contaminated object: 7	UN2913	
		Radioactive Material, excepted package - instruments or articles: 7	UN2910	
		Other (Specify)		

(7) SHIPMENT TOTALS							(8) TOTAL SNM			
Total Volume (ft. <sup>3</sup> )	Total No. of Packages	ACTIVITY (10CFR20.311) Millicuries					Source (Pounds)	Isotope	Grams	No. Packages
		All Isotopes	Tritium	C-14	Tc-99	I-129		U-233	NP	NA
<u>172.5</u>	<u>23</u>	<u>4350327.004</u>	<u>NP</u>	<u>NP</u>	<u>19.013</u>		U-235	NP	NA	
							PU	<u>.233</u>	<u>6</u>	
							TOTAL	<u>.233</u>	<u>6</u>	

(12) WASTE DESCRIPTION lens, telescope, align, lens, quadrant, Electron Tubes, meters, switches, level Receivers, usual, collimator, source, diats (13) PHYSICAL FORM Solid, gas

(10) SOLIDIFICATION AGENT NA (11) NUMBER AND TYPE OF CONTAINERS 23 Metal drums - 7A Type A  
 (14) CHEMICAL FORM OXIDE, H3, KR95 (15) NAME AND % OF CHELATING AGENT(S) NA (16) WASTE FORM CLASS  AU  AS  B  C

(17) (X) Yes ( ) No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

(19) " Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License 287-04 as amended, and the effective consolidation facility acceptance criteria, within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations."

Signature David C. [Signature]  
 Company HQ, IOL Date 10-30-96

Date 10-30-96 Signature [Signature]  
 Title and Organization RPO Letterkenny Army Depot  
 Telephone No. (717) 267-5253

**CNCF COPY**  
 Form No. CNS-201 (4/96)  
 SEE INSTRUCTIONS ON REVERSE SIDE FOR FILLING OUT THIS FORM

CNCF USE ONLY

This material meets all initial D.O.T. and acceptance criteria  Contents Inspected.  
 Discrepancy  Not inspected.

R13637  
R13659

Arrival Date/Time \_\_\_\_\_ Arrival Survey No. \_\_\_\_\_  
 Tractor # \_\_\_\_\_ Trailer # \_\_\_\_\_  
 Date/Time Unloaded \_\_\_\_\_ H.P. Initial \_\_\_\_\_

Date \_\_\_\_\_  
 Authorized Signature \_\_\_\_\_ Title \_\_\_\_\_

Encl 1

(20) ITEM NO	(21) RADIO-NUCLIDE EACH CONTAINER	(22) PERCENT OF ACTIVITY OR MCI OF EACH NUCLIDE	(22a) ACTIVITY EACH CONTAINER (mCi)	(24) PHYSICAL FORM	(25) CHEMICAL FORM AND NAME & % OF CHELATING AGENT	(26) WASTE DESCRIPTION	(27) WASTE FORM CLASS	(28) SPECIAL NUCLEAR MATERIAL (gross)	(29) SOURCE MATERIAL (pounds)	CONTAINER				(31) CONTAINER VOLUME (Cm <sup>3</sup> )	(32) CONTAINER TYPE	(33) RADIATION LEVELS CONTAINER SURFACE (mR/hr)	(33) RADIATION LEVELS (mR/hr)	(34) CONTAINER SURFACE (CPM/100 cm <sup>2</sup> ) Alpha Beta Gamma	(35) LSA OR SCO GROUP	(36) LABELS/ MARKINGS USED
										(30) CONTAINER WEIGHT (pounds)	(31) CONTAINER VOLUME (Cm <sup>3</sup> )	(32) CONTAINER TYPE	(33) RADIATION LEVELS CONTAINER SURFACE (mR/hr)							
* L-1	Th (m)	.00041	.00041	Solid	OXENE	Receiver, total, collimator	A	NP	.004	200	7.5	TALYORA	.08	.08	230	2290	NA	Radioactive - Yellow II		
* L-2	Th (m)	.00074	.00074	Solid	OXENE	Receiver, total, collimator	A	NP	.003	200			.08	.08				Radioactive -		
* L-3	Th (m)	.000276	.000276	Solid	OXENE	Receiver, collimator	A	NP	.003	200			.08	.08				Radioactive -		
* L-4	Th (m)	.000294	5.079174	Solid	OXENE	Receiver, collimator	A	NP	.003	160			1	.08				Radioactive -		
	K <sub>251</sub>	5		gas	K <sub>251</sub>	Source												Radioactive -		
	R9226	.00724		Solid	OXENE	diode, meter, switch												Radioactive -		
	6B60	.0016		Solid	OXENE	Electron Tubes												Radioactive -		
	Pm 147	.01		Solid	OXENE	Protector												Radioactive -		
* L-5	C-14	.004	61243209	Solid	OXENE	Electron Tube	A	NP		190			.6	.08				Radioactive -		
	R9226	.000147		Solid	OXENE	Electron Tubes												Radioactive -		
	Th (m)	1.0074705		Solid	OXENE	Electron Tubes, lens, optics, collimator			10									Radioactive -		
	Ni63	.00011		Solid	OXENE	Electron Tubes												Radioactive -		
	Co60	.00004		Solid	OXENE	Electron Tubes												Radioactive -		
	Re187	.0000284		Solid	OXENE	Electron Tubes												Radioactive -		
	K <sub>251</sub>	112647		gas	K <sub>251</sub>	Electron Tubes												Radioactive -		
* L-6	H3	176650	176650	gas	H3	Lamp, cell, collimator, telescope	B	NP	NP	250			.08	.08				Radioactive -		
* L-7	H3	282150	282150	gas	H3	Telescope, alignment device	B	NP	NP	250			.08	.08				Radioactive -		
* L-8	H3	283000	283000	gas	H3	Collimator, quadrant	B	NP	NP	350			.08	.08				Radioactive -		
* L-9	H3	195800	195800	gas	H3	Quadrant, Align, Telescope, Level	B	NP	NP	310			.08	.08				Radioactive -		
L-10	H3	69150	69150	gas	H3	Compass, Level, Collimator, Mod 1417	B	NP	NP	315			.08	.08				Radioactive -		
L-11	H3	588040	588040	gas	H3	Collimator, Lamp, Telescope, Coll Light	B	NP	NP	190			.08	.08				Radioactive -		
L-12	H3	507915	507915	gas	H3	Lamp, switch, Align, Telescope, Quad.	B	NP	NP	350			.08	.08				Radioactive -		
L-13	H3	904350	904350	gas	H3	Coll, Telescope, Lamp, Align, Collimator	B	NP	NP	150			.08	.08				Radioactive -		
L-14	H3	110725	110725	gas	H3	Collimator, Quadrant, Lamp	B	NP	NP	220			.08	.08				Radioactive -		
L-15	Th (m)	488926	488926	Solid	OXENE	Eye piece, Image intens, head	A	NP	9	185			.08	.08				Radioactive -		
L-16	H3	263575	263575	gas	H3	Collimator, Lamp, Level, Telescope	B	NP	NP	115			.08	.08				Radioactive -		
L-17	H3	991990	991990	gas	H3	Lamp, Level, Align, Collimator, Quad.	B	NP	NP	145			.08	.08				Radioactive -		
* L-18	Pu239	2.575	2.575	Solid	OXENE	Source	C	.04	NP	430			1	.08				Radioactive -		
* L-19		2.575	2.575	Solid	OXENE	Source	C	.04	NP	430			1	.08				Radioactive -		
* L-20		2.575	2.575	Solid	OXENE	Source	C	.04	NP	430			1	.08				Radioactive -		
20																				
PAGE TOTALS										17	19.013	5060	150				NA			

4350314.92357809

\* = OLA Material

\*\* = Cecon



**BOYLE** 16 RIVERHURST RD  
BILLERICA, MA 01821-3497  
CALL 800-343-2004

Boyle Tracking Number (Driver Use Only)

Government? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Bill of Lading Number	Date Shipped 10   30   96					3   8   5   1   5					
Shipper (Origin) Contact Name HQ, IOC			Phone Number (709) 782 0338			Consignee (Destination) Contact Name John Lash			Phone Number (803) 2591119				
Company (Government Facility) Letter/Kenny Army Depot			Account (GBLOC)			Company (Government Facility) CNCF			Account (GBLOC)				
Street Address						Exact Street Address (We Cannot Deliver to PO Boxes) Highway 64							
City Chambersburg		State/Province PA		ZIP/Postal Code		City Snelling		State/Province SC.		ZIP Required 219   8   112			
PAYMENT		1. <input type="checkbox"/> Bill Shipper (Prepaid)		2. <input type="checkbox"/> Bill Consignee (Collect)		Shipper's Reference Information							
3. <input checked="" type="checkbox"/> Bill 3rd Party: HQ, IOC													
SERVICES (Check services required)						SHIPMENT INFORMATION						PIECES	WEIGHT Pounds Only
<input type="checkbox"/> Chains & Binders (CB) <input checked="" type="checkbox"/> Exclusive Use of Vehicle (EU) <input type="checkbox"/> Expedited Service (EX) Delivery by: <u>LL</u> <input type="checkbox"/> Overdimensional Service (OD) <u>L x W x H</u> <input type="checkbox"/> Pickup & Delivery on Sat, Sun or Holiday (PD) <input type="checkbox"/> Other:						Does this shipment contain Hazardous Materials? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (As per attached Shipper's Declaration) <b>INSTRUCTIONS</b> Radioactive Material, nos, 7, UN2952, RQ						52	16880
Security Services (Use Signature & Tally Sheet) <input type="checkbox"/> Constant Surveillance Service (CS) <input type="checkbox"/> Dual Driver Protection Service (DD) <input type="checkbox"/> DD with National Agency Check (DN) <input type="checkbox"/> Motor Surveillance Service (MS) <input type="checkbox"/> Protective Security Service (PS) <input type="checkbox"/> Satellite Motor Surveillance Service (SM)						see Attached Shipping Papers						Total 52	Total 16880
Date/Time Received			Driver's Name			Time Arrived			Time Released				
Received by (Signature): X						First Initial, Last Name (Please Print)							

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL  
Radioactive Waste Shipment Certification Form

General Instructions and Information: This is a two part form to be used by shippers and carriers of radioactive waste. The certifications contained herein satisfy the requirements of Section 13-7-150, of Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act. This certification along with a copy of the prior notification form shall accompany each shipment of radioactive waste into and within the State of South Carolina. The shipper is to complete his portion of the form and present it to the carrier as part of the shipping documents. Upon receipt, the carrier shall complete his portion of the form. Upon delivery of the shipment to the consignee, a copy of this certification form, and a copy of the Prior Notification and Manifest form with the consignee acknowledgement, shall be returned to the Department.

Part I: Shipper's Certificate of Compliance

1. Name of Shipper and Address: EQ, IOC, AMSIO-DMW ROCK ISLAND IL 61299-6000 Telephone No. (309) 782-0338	2. Shipment Identification No. USA 96-099                      SCN 0214-96
	3. Transport Permit No. 0137-00-96-E

In compliance with Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act, I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the above-named shipper has complied with all provisions of Act No. 499 of 1980, and all applicable laws and administrative rules and regulations, both State and Federal, regarding the packaging, transportation, storage, disposal and delivery of such wastes. I further certify that this shipment of radioactive waste has been inspected within 48 hours of the time of departure and that no items of non-compliance with applicable laws, rules or regulations were found.

Date 10-30-96

Derek O. Corrette  
Typed Name and Title of Agent of Shipper

Derek O. Corrette  
Signature

Part II: Carrier's Certification

1. Name of Carrier and Address: <u>Boyle Transport</u> <u>15 Riverhurst Rd., Billerica, Mass.</u> Telephone No. <u>800-343-2004</u>	2. Shipment Identification No. USA 96-099                      SCN 0214-96
	3. Transport Trailer No. <u>4821</u>
4. Schedule Date of Departure of Shipment: <u>10-30-96</u>	5. Estimated Date of Arrival of Shipment: <u>10-31-96</u>

Certification is hereby made to the South Carolina Department of Health and Environmental Control that: (a) the shipper has provided the carrier with a copy of the shipment manifest, the certificate of compliance, and the routing instructions; (b) the shipment of radioactive waste has been properly placarded for transport according to applicable U.S. Department of Transportation Regulations; (c) all shipping papers originated or reproduced by the carrier have been properly executed; (d) the transport vehicle has been inspected according to applicable State and Federal regulations within the prescribed intervals and that all safety and operational components are in good working order and meet the requirements of regulations; (e) all drivers who will operate the vehicle within the State of South Carolina are qualified to transport hazardous materials as specified by applicable U.S. Department of Transportation regulations; (f) the Department shall be immediately notified of any variance, occurring after departure, from the shipper's notification of primary routes in South Carolina and estimated date of arrival; (g) all applicable laws and administrative rules and regulations, both State and Federal, regarding the transportation of radioactive wastes will be complied with.

Date 10-30-96

Richard Wesinger /DRIVER  
Typed Name and Title

[Signature]  
Signature

DRIVERS INSTRUCTIONS FOR EXCLUSIVE USE VEHICLES  
FOR DOD SHIPMENTS

The Code of Federal Regulations, 49 CFR 173.425(b)(9) requires that specific instructions for maintenance of exclusive use shipments controls be provided to the carrier. These instructions must be included with the shipment documents.

The following instructions shall be complied with by all vehicles designated exclusive. Changes to the following instructions are not acceptable without the approval of the consignee.

1. Do not change out the tractor before arrival at the mode transfer point or destination.
2. Do not change the fifth wheel adjustment on the tractor.
3. Do not move or transfer packages within the van or between vans.
4. Shipments must be braced so as to prevent shifting of load under conditions normal incident to transportation.
5. The shipment must be loaded and unloaded from the original transport vehicle by the consignor or consignee only.
6. The cargo compartment must be secured with a tamper proof device.

(Check the box(es) for additional instructions that are applicable.

- a) The vehicle must be placarded "RADIOACTIVE" on all four sides until shipment is unloaded.
- b) This shipment will have the following intermediate stops.  
 loaded initially at Tolhuca Army Depot  
 intermediate load at OLA - Region East  
 intermediate load at Letter Kenny Army Depot  
 intermediate load at \_\_\_\_\_  
 intermediate load at \_\_\_\_\_  
 intermediate load at \_\_\_\_\_  
 unload vehicle at CNCF, Suisun Bay, CA  
 all loading and unloading must be performed under the supervision of DoD.

If the vehicle is involved in; 1) an accident, 2) Shifting of the cargo, 3) mechanical malfunction, 4) or any deviation from these instructions; notification procedures shall be IAW AR 55-355 Chapter 33-14:

CDRAMCCOM ROCK ISLAND IL//RMSMC-TV//  
 Telephone \_\_\_\_\_  
 Commercial: Duty Hours (309) 782-~~5274~~<sup>2966</sup> Mr. William S. Huber  
 After Hours (309) 782-6001 Duty Officer  
 Autovon: Duty Hours 793-6271<sup>2966</sup>  
 After Hours 793-1110 Duty Officer

*Robert W. [Signature]*  
(Carrier's Signature)

Boyle Transport  
(Carrier)

10-30-9  
(Date)

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
**Radioactive Waste Shipment Prior Notification and Manifest Form**

[Failure to Complete ALL Entries Will Result in Return of Form and Constitute Noncompliance.]

See Reverse Side for Instructions

1. Name and Address of Shipper/Generator: HQ, IOC, AMSIO-DMW ROCK ISLAND IL 61299-6000		2. Person Responsible for Waste Shipment: a) Name: MR. KELLY CROOKS b) Title: HEALTH PHYSICIST c) Telephone: (309) 782-0338	
3. Radioactive Waste Transport Permit No. 0137-00-96-E		4. Shipment Identification No.: USA 96-099 (SCN 0214-96)	
5. Location from which waste will be shipped: LETTERKENNY ARMY DEPOT CHAMBERSBURG, PA		6. Name and Address of Consignee: CHEM-NUCLEAR CONSOLIDATION FACILITY SNELLING, SC	
7. Scheduled Date of Departure of Shipment: 29 OCT 96		8. Estimated Date of Arrival of Shipment: 31 OCT 96	
9. Carrier: <i>Boyle Transport</i> <del>TRI-STATE MOTOR TRANSIT</del>	10. Trailer No. & Owner: (if avail.) <i>4821</i> <del>TS</del>	11. Type Transport Vehicle: VAN	
12. Routes shipment will follow in State of South Carolina (Be Specific): I-95, US 301, US-278, SC-64 W			
13. Type Package or Cask Model No.: METAL DRUMS	14. Type Container in Cask: NA	15. Package or Cask Spec. USA DOT 7A TYPE A	
16. Complete Waste Description (Be Specific): SOURCES, CHECK SOURCES, COLLIMATORS, ET. COMPASSES, DIALS WATCHES, QUADRANTS, LEVELS, LAMPS, LENS, EYE PIECES, IMAGE INTENSIFIERS, RADIACS			
17. Physical & Chemical Form: SOLID OXIDE GAS H3, KR85	18. Total No. of Packages: <i>±5 ± 23</i>	19. Prominent Radionuclides: PM-147 RE-187 CO 60, TR(N) H3, PU239 RA226, NIG3 KR-85	
20. Total Curies: <i>4350.327 on 201 6000el</i>	21. Waste Class & Stability: <i>C, A, B U</i>	22. Total Cubic Feet: <i>112.5 ± 172.5</i>	
23. DOT Sub Type: <i>&lt; A2</i>	24. DOT Class. & Hazard Class UN No.: 2982 RADIOACTIVE MATERIAL, NOS	25. Hwy. Route Controlled: (Large Quantity) [ ] Yes [ X ] No	

**CERTIFICATION**

I hereby certify on behalf of the above-named shipper/generator to the South Carolina Department of Health and Environmental Control that the information provided herein is complete and correct to the best of my knowledge; and that the shipper/generator has complied with all the provisions as required by Act No. 429 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act, and Department Regulation 61-83.

Date: 10-17-96

DEREK O. CORNETTE

Typed Name

*Derek O. Cornette*

Signature of Consignor's Authorized Representative

**COSIGNER ACKNOWLEDGEMENT**

Date of Delivery

Signature of Consignee's Authorized Representative

Typed or Printed Name and Title



TRAILER SURVEY

Shipment ID Number: SCN 0214-96

Surveyed Performed by: A. Coquette

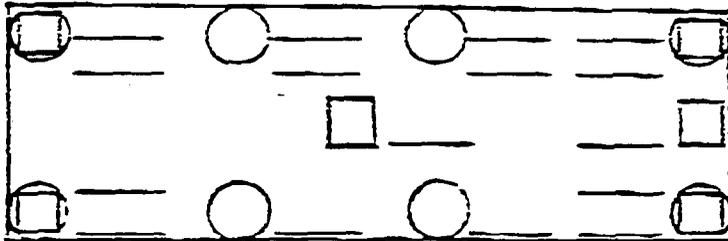
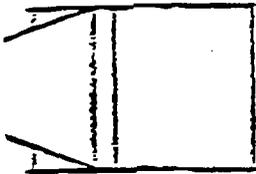
Instrument Used: 00011

Date Calibrated: 8-13-96

○ = m/hr

□ = cm<sup>2</sup>/100cm<sup>2</sup>

Initial Incoming Survey

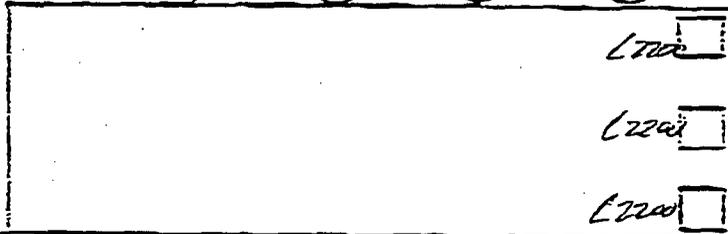
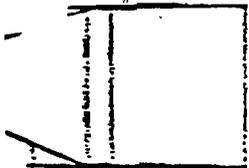


Vehicle Condition: Accept / Reject

Outgoing Shipment Survey

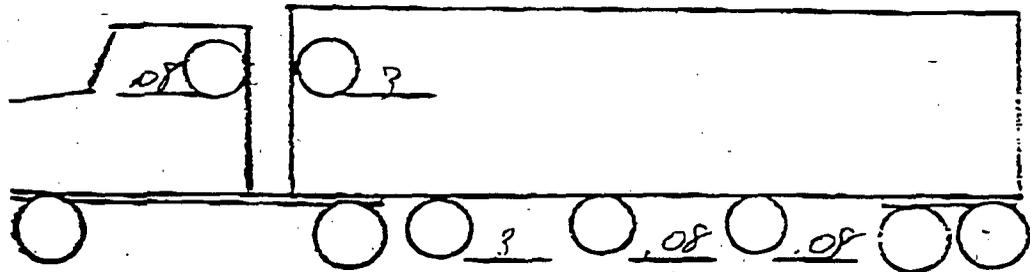
2 meters .4 .1 .08 .08  
 Contact ○ 4 ○ 4 ○ .08 ○ .08

Contact 2 meters



L100 ○ .08 .08  
 L200 ○ .08 .08  
 L300 ○ .08 .08

Contact ○ 3 ○ 1 ○ .08 ○ .08  
 2 meters .08 .08 .08 .08



RECEIPT INSPECTION CHECKLIST

The following checklist is to be used by qualified Shipment Receipt Inspector to ensure the proper disposition and notification of radioactive material shipment received at the DCF.

Date: 10/31/96 Site Clearance Number: <sup>SCN 024-96</sup> ~~SCN 025-96~~ <sub>SCN 026-96</sub> Inspector performing receipt: Bower

1. Shipment is consigned to the Defense Consolidation Facility.  
 YES NO if NO, contact the HP Manager and Licensing Engineer, do not continue with receipt and turn in checklist to Inventory Control.

2. Shipment is listed on Shipment Roster located in the reception area.  
 YES NO if NO, contact the HP Manager.

3. Receipt survey performed in accordance with DF-AD-011, Section 5.0.  
 YES NO

NOTE: Exclusive use shipment trailers may be dropped prior to surveying.

NOTE: Shipments from common carriers are to be placed in designated hold areas prior to being surveyed.

SURVEY # SL6305-2

4. Radiation/contamination limits meet D.O.T. requirements.  
 YES NO if NO, notify HP Manager.

5. Barnwell Site SCDHEC inspector notified for each cask shipment.  
YES NO  NA

SCDHEC Inspector notified N/A  
Time

6. SCDHEC inspection completed.

YES NO  NA SCDHEC completed inspection N/A  
Time

SCDHEC Inspector Acknowledgment N/A

7. Completed surveys, checklist, shipment paperwork given to Inventory Control.

YES NO Bower 1060  
Signature Receipt Person Time

8. Packages offloaded/placed in designated areas which are properly posted.

YES NO

Reviewed by: Bower  
Inventory Control

Date: 10/31/96

Reviewed by: [Signature]  
HP Manager

Date: 11/8/96

Author: "Schick; David" <DSCHICK@afmetcal.af.mil> at Internet\_Gateway  
Date: 2/27/97 12:11 PM  
Priority: Normal  
TO: Barry Silber at safel  
CC: "Moser; Paul C." <PMOSER@afmetcal.af.mil> at Internet\_Gateway,  
"Feeser; Maj Paul" <feeser\_p@msa04.brooks.af.mil> at Internet\_Gateway  
Subject: Air Force Possession of AN/UDM-7C Calibration Stds

The Air Force currently possesses the following radioactive calibration standards, P.N. AN/UDM-7C, under the authority of USNRC Master Materials License No. 42-23539-01AF issued to the USAF Radioisotope Committee:

Serial Nos: C120

C140

C164

C176

C292

~~C310~~

C6

C70

C82

These calibration standards were apparently transferred during the early to mid-1980s from the Army to the Air Force under USNRC Materials License No. SNM-1184 issued to Newark Air Force Station, Heath, Ohio.

//SIGNED//  
DAVID P. SCHICK, RADIAC Field Support Engr  
AFMETCAL DET 1/MLEE, DSN 366-5120  
dschick@afmetcal.af.mil

Encl 2



UNITED STATES DEPARTMENT OF COMMERCE  
National Institute of Standards and Technology  
Gaithersburg, Maryland 20899-0001

February 28, 1997

Barry Silber  
U. S. Army  
Fort Monmouth  
Army Electronics Research  
and Development Command  
Fort Monmouth, NJ 07703

Dear Mr. Silber:

A radiac calibration source set, AN-UDM-7C, serial number C143, is currently located at the National Institute of Standards and Technology in Gaithersburg, MD. It is held under U. S. Nuclear Regulatory Commission License No. SNM-362 which is currently under timely renewal.

Sincerely,

Douglas M. Eagleson, SHP  
Health Physics  
Occupational Health and Safety Division

**NIST**

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