



DEPARTMENT OF VETERANS AFFAIRS
Medical Center
Albany NY 12208

December 7, 1990

In Reply Refer To: 500/00

Malcolm R. Knapp, Director
Division of Radiation Safety and Safeguarding
Q Nuclear Regulatory Commission, Region 1
475 Allendale Road
King of Prussia, Pennsylvania 19406

RE: Docket No. 030-10026
CAL No. 1-90-019
License No. 31-02755-05
Confirmatory Action Letter No. 1-90-019

Dear Mr. Knapp:

This correspondence, with associated DOCUMENTS, is forwarded in reply to Item 1 of your Confirmatory Action Letter No. 1-90-019, dated November 29, 1990. The material presented here resulted from an immediate and earnest effort on the part of Lawrence H. Flesh, M.D., Chief of Staff, the Chief of Nuclear Medicine Service/Acting RSO, the Nuclear Medicine Technologists and secretarial staff and our Consultant Health Physicist, since November 26, 1990.

The inventory of the radioactive sealed sources at the AVAMC is proceeding concurrently as a two (2) phase effort. As noted below, the first phase, to satisfy the December 7, 1990 submission to your office, has been completed.

PHASE I The location, activity, serial number, and additional identifying information of all radioactive sealed sources, as noted in the enclosed SEALED SOURCE PHYSICAL INVENTORY CHECK LIST (DOCUMENT #1, 2 Pages), was checked against the actual availability/inventory of the listed sources (DOCUMENT #2, 13 Pages). DOCUMENT #2 (13 Pages), together with DOCUMENT #3 (1 Page) and DOCUMENT #4 (1 Page), presents the current inventory of all sealed sources at the AVAMC and has been cross referenced to the BLUE BOOK PG (BB PG)* in order to facilitate comparison with DOCUMENT #1. Document #1, as the initial and basic working document, was not altered, except to delete duplicate entries.

*The BLUE BOOK is the Radiation Safety
Log of sealed sources, surveys and

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PDR FOIA
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EXHIBIT 18

G/6

PAGE 2 OF 20 PAGE(S)

wipes, leak tests, and the quarterly physical inventory; the BLUE BOOK was maintained through approximately June 1988.

The Consultant Physicist has concluded at this time that no licensed sealed sources were lost. DOCUMENT #2, Page 2 indicates the loss of two (2) Co-57 Nuclear Medicine marker sources (<1uCi each on June 22, 1988) and the disposal of one (1) Nuclear Medicine penpoint marker (0.4uCi on 10/1/90) which was not useful due to its minimal activity. These findings were telecommunicated to Mr. Christopher J. Eckert, of your office, on December 5, 1990. Further, procedures have been reiterated with the staff towards prevention of a recurrence.

The DOCUMENT #3 radionuclide may not have been included in the DOCUMENT #1 inventory due to its quality, quantity, and use. The DOCUMENT #4 radionuclides, although not included in the inventory, were noted to have been properly labeled and stored.

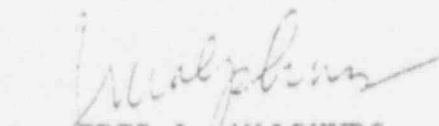
Phase I efforts concentrated on locating, consolidating, and ensuring that all sealed sources were adequately labeled and stored. No attempt was made to decay or dispose of radionuclides during this phase.

PHASE II Activities will include disposal, return, leak testing, source custodial assignment responsibilities, and training and maintenance of inventory records pursuant to the appropriate regulations. As noted on DOCUMENTS #1, #2, and #3, many of these were performed during Phase I.

The remaining items in your Confirmatory Action Letter are being addressed and all necessary actions have been initiated for full implementation. These, I trust, will be discussed at the Enforcement Conference on December 13, 1990.

Please communicate with me immediately if this communication is not totally responsive to your Item 1 request.

Sincerely,


FRED L. MALPHURS
DIRECTOR

SEALED SOURCE PHYSICAL INVENTORY CHECK LIST 12/6/90

LOCATION	RS#	NUCLIDE	SOURCE DESCRIPTION	BLUE BOOK PG
608 CORE	RIA-1	I-129	ROD	13
608 CORE	RIA-2	I-129	ROD	14
608 CORE	RIA-3	Cs-137	ROD	15
608 CORE	RIA-4	I-129	ROD	15
609D	NMS-1	Co-57	BUTTON	65
609D	NMS-10	Au-195	TOMO SLICE B-BOX 2	27
609D	NMS-11	Au-195	TOMO SLICE A-BOX 3	27
609D	NMS-12	Au-195	TOMO SLICE B-BOX 3	27
609D	NMS-13	Au-195	TOMO SLICE A-BOX 5	27
609D	NMS-14	Au-195	TOMO SLICE B-BOX 5	27
609D	NMS-2	Co-57	BUTTON	66
609D	NMS-23	Co-57	DISCS(2)	82
609D	NMS-3	Co-57	PENPOINT	41
609D	NMS-4	Co-57	FLOOD	74
609D	NMS-5	Au-195	FLOOD-BOX 4	26
609D	NMS-6	Au-195	BUTTON-BOX 4	28
609D	NMS-7	Au-195	TOMO SLICE A-BOX 1	27
609D	NMS-8	Au-195	TOMO SLICE B-BOX 1	27
609D	NMS-9	Au-195	TOMO SLICE A-BOX 2	27
610A	RSA-2	H-3	LS.VIAL	55A
610A	RSA-3	C-14	LS.VIAL	55B
610A	RSA-3	H-3	L.S. VIALS	19
610A	RSA-4	C-14	L.S. VIALS	19
617D	DPA-2	Gd-153	DPA SOURCE	---
621D	DPA-1	Gd-153	DPA SOURCE	---
621D	NMS-15	Co-57	FLOOD	69
621D	NMS-16	Cs-137	AMPOULE	22, 23
621D	NMS-17	Cs-137	SEALED SOURCE	31
621D	NMS-22	Cs-137	POINT SOURCE-NBS	---
621D	NMS-23	C-14	BENSOIC ACID	46
621D	NMS-24	C-14	VIAL	46
621D	NMS-26	Cl-36	VIAL	42
621D	NMS-27	Cl-36	VIAL	42
621D	NMS-28	H-3	TOLUENE	48
621D	NMS-29	H-3	L.S.VIAL	48
621D	NMS-30	H-3	L.S.VIALS	52
621D	NMS-31	Cl-36	VIAL	50
621D	NMS-32	Tc-99	BUTTON	49
621D	NMS-33	C-14	L.S.VIAL	51
621D	NMS-35	Cs-137	CONTAINER-NEEDLES	75
621D	NMS-36	Cs-137	CONTAINER-NEEDLES	77
621D	NMS-37	Cs-137	CONTAINER-NEEDLES	78
621D	NMS-38	Cs-137	CONTAINER-NEEDLES	79
621D	NMS-39	Ir-192	SEEDS-FROM PATIENT	---
621D	NMS-40	Ir-192	RIBBONS	---
621D	NMS-42	Cs-137	4 CHECK SOURCES	---
621D	RT-4	Ir-192	SEEDS FROM PATIENT	---
622D	NMS-18	H-3	LIQUID-WATER	25
622D	NMS-19	H-3	LIQUID-WATER	16
622D	NMS-20	C-14	AMPOULE-SODIUM CARBONATE	36
622D	NMS-21	C-14	LIQUID-TOLUENE	72
624A	RSA-5	C-14	AMPOULE-TOLUENE	59
624A	RSA-6	Co-57	ROD	57
624A	RSA-7	Zn-65	ROD	36
624A	RSA-8	Cs-137	ROD-BIARD ATOMIC	38
624A	RSA-9	Cs-137	ROD-PACKARD	38

EXHIBIT 18

SEALED SOURCE PHYSICAL INVENTORY CHECK LIST 12/6/90

LOCATION	RS#	NUCLIDE	SOURCE DESCRIPTION	BLUE BOOK PG
628D	NS-1	Sr-90	BUTTON	3
628D	NS-10	Cs-137	DISC	10
628D	NS-11	Bi-210	BUTTON	11
628D	NS-12	C-14	KEY CHAIN	12
628D	NS-13	Sr-90	EYE APPLICATOR	17
628D	NS-14	Cs-137	D.C.VIAL	24
628D	NS-15	Co-60	D.C.VIAL	29
628D	NS-16	Cs-137	CHECK SOURCE	33
628D	NS-17	Co-57	D.C.VIAL	34
628D	NS-18	Ba-133	ROD	35
628D	NS-19	Co-57	DISC	37
628D	NS-2	Cs-137	CHECK SOURCE	2
628D	NS-20	I-129	DISC	40
628D	NS-21	Ba-133	D.C.VIAL	61
628D	NS-22	Co-57	D.C.VIAL	62
628D	NS-23	Cs-137	D.C.VIAL	64
628D	NS-24	Co-60	D.C.VIAL	67
628D	NS-25	H-3	LIQ. SCIN. STDS	68
628D	NS-26	Ba-133	ROD	73
628D	NS-28	Co-57	FLOOD	76
628D	NS-29	I-129	ROD-NEN	80
628D	NS-3	Cs-137	DISC	3
628D	NS-30	I-129	ROD-I.P.	81
628D	NS-32	Co-57	D.C. VIAL	---
628D	NS-33	Co-60	D.C.VIAL	---
628D	NS-34	Cs-137	VIAL-NEN	---
628D	NS-35	Co-57	D.C.VIAL	---
628D	NS-36	I-129	BUTTON	---
628D	NS-4	Co-60	DISC	3
628D	NS-5	Cs-137	SWAB	3
628D	NS-6	Co-60	SWAB	3
628D	NS-7	C-14	BUTTON	7
628D	NS-8	Cs-137	ROD	8
628D	NS-9	Co-60	ROD	9
RT-116A	RT-2	Cs-137	VIAL	63
RT-123	RT-1	Sr-90	SOLID	60

EXHIBIT 18

ROOM 608

RIA Laboratory

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB PG
I-129	ROD	0.0118 μ Ci	1/75	NEN	NES-226	13
I-129	ROD	0.091 μ Ci	12/80	MICRO MEDIC	-	14
CS-137	ROD	-	-	PACKARD	T-7	15
I-129	ROD	0.08 μ Ci	7/83	MICRO MEDIC	1003	15

COMMENTS: (1) STANDARDS FOR GAMMA COUNTERS.

(2) FOLLOWING STANDARD NOT ON INVENTORY (REC'D 1989 & 1990)

I-129	ROD	0.08 μ Ci	8/89	MICRO MEDIC	1957	-
I-125	ROD SET (10 Stds)	<0.4 μ Ci	10/30/89 (Expires 4/29/90)	ICN	549454 thru 549463	-

EXHIBIT 18

(Nuclear Medicine Service/Tomo Room)

<u>RADIOISOTOPE</u>	<u>DESCRIPTION</u>	<u>ACTIVITY</u>	<u>DATE</u>	<u>MANUFACTURER</u>	<u>SERIAL/MODEL NO.</u>	<u>BLUE BOOK PAGE</u>
Co-57	Button		SEE COMMENT (1) BELOW			65
Au-195	TOMO B- Box 2	61pCi	10/79	NEH	80271079C-02-39	27
Au-195	TOMO A- Box 3	69pCi	10/79	NEH	80271079C-02-2	27
Au-195	TOMO B- Box 3	69pCi	10/79	NEH	80271079C-02-29	27
Au-195	TOMO A- Box 5	51pCi	10/79	NEH	80271079C-02-4	27
Au-195	TOMO B- Box 5	51pCi	10/79	NEH	80271079C-02-49	27
Co-57	Button		SEE COMMENT (2) BELOW			66
Co-57	Discs (2)	50pCi each	3/88	Nuclear Associates	67-289	82 - SEE COMMENT (4)
Co-57	Penpoint Marker		SEE COMMENT (3) BELOW			41
Co-57	Disc/Flood	5.91pCi	12/2/85	Oris 6400R	211008	76 - SEE COMMENT (5)
Au-195	Flood/Box 4	1.5pCi	10/15/79	NEH	80251079C-02	26
Au-195	Button/Box 4	30pCi	8/79	NEH	NES-8030	28
Au-195	TOMO A/Box 1	79pCi	10/79	NEH	80271079C-02-01	27
Au-195	TOMO B/Box 1	61pCi	10/79	NEH	80271079C-02-5	27
Au-195	TOMO A/Box 2	61pCi	10/79	NEH	80271079C-02-3	27

- COMMENTS:
- (1) Blue Book Page 65 — Co-57 Nuclear Medicine Marker Source (0.92pCi on 6/22/88) inadvertently discarded during room renovations — discussed with Mr. C. J. Eckert on 12/5/90 (Not Byproduct — Not Reportable).
 - (2) Blue Book Page 66 — Co-57 Nuclear Medicine Marker Source (0.96pCi on 6/22/88) inadvertently discarded during room renovations — discussed with Mr. C. J. Eckert on 12/5/90 (Not Byproduct — Not Reportable).
 - (3) Blue Book Page 41 — Co-57 Nuclear Medicine Marker Source (0.4pCi on 10/1/90) discarded since not useful.
 - (4) Blue Book Page 82 — Discs (2) now stored in Room 621D.
 - (5) Blue Book Page 76 — Disc/Flood now stored in Room 621D.

ROOM 610A

(Dr. A. Koeppen/Researcher)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
H-3	Vial	294,800DPM ($<0.2\mu\text{Ci}$)	9/1/86	Packard	161	55A	
C-14	Vial	138,200DPM ($<0.1\mu\text{Ci}$)	7/9/86	Packard	150	55B	
C-14	Vials (9)	100,000DPM (Each Vial)	4/4/71	Packard	-	19	
H-3	Vials (4)	1000K DPM (Each Vial)	3/17/71	Packard	-	19	

COMMENTS: (1) TRI-CARB Standards.

ROOM 617D

(Nuclear Medicine Service/Bone Densitometry)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
Gd-153	Bone Densitometer	1Ci	4/6/90	Amersham	2400LN	---	

COMMENTS: (1) SOURCE LEAK TESTED BY AMERSHAM ON APRIL 10, 1990;
----- TO BE LEAK TESTED DEC. 90.

ROOM 621D

(Nuclear Medicine "Hot" Lab)

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RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
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Gd-153	Bone Densitometry	0.6Ci	9/87	Amersham	05-213ABS233	---	
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COMMENTS: (1) Source, in storage/not useful, to be discarded or
returned to vendor.

(Nuclear Medicine "Hot" Lab)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL	MODEL	BB PG
Co-57	Flood	5mCi	12/18/85	Amersham	1775MF		69
Cs-137	Ampoule	114.5µCi	5/1/75	Amersham	908505		22,23
Cs-137	Solid	1µCi	5/15/80	Amersham	-		31
Cr-137	Disc	3.669x10 ⁻⁷	9/12/79	NBS Std.	SRM4207-82		--- Comment 1
C-14 (Blk)	Benzoic Acid	32,300DPM	-	Packard	201		46
C-14	Vial	101,700DPM	-	Packard	K0616		46
Cl-36 (Green)	Alpha-Benzene Hexachloride	29,000DPM	-	Packard	201		42
Cl-36	Vial	51,000DPM	-	Packard	K0316		42
H-3 (Blue)	Toluene	84,000DPM	2/1/61	Packard	201		48
H-3	Vial	123,000DPM	5/9/66	Packard	K0616		48
H-3	Vials (7)	1x10 ⁶ DPM	6/23/67	Packard	Kit #2		52
Cl-36	Disc	-	-	NENC	B-12		50 COMMENT 2
Tu-99	Disc	-	-	NENC	B-11		49 COMMENT 2
C-14	Vials (7)	1x10 ⁵ DPM	6/23/67	Packard	Kit #1		51
Cs-137	Needles (6)	46.8mCi	12/16/85	3M	Can #1		75 COMMENT 4
Cs-137	Needles (6)	46.95mCi	12/16/85	3M	Can #2		77 COMMENT 4
Cs-137	Needles (6)	16.16mCi	12/16/85	3M	Can #3		78 COMMENT 4
Cs-137	Needles (18)	95.7mCi	4/1/86	3M	Lead Pig		79 COMMENT 4
Ir-192	Seeds (2)	1.07mCi	3/11/88	Best Ind.	8802R(Lot)		---
Ir-192	Ribbons (25)	93.2mCi	3/11/88	Best Ind.	8802R(Lot)		---
Cs-137	4 Check Sources	10µCi (#20)	9/88	Dupont	5139X005-20		---
		10µCi (#03)	11/9/88	Dupont	5139X005-03		---
		10µCi (#05)	11/9/88	Dupont	5139X005-05		---
		10µCi (#12)	11/9/88	Dupont	5139X005-12		---
Ir-192	Seeds (7)	93.2mCi	3/11/88	Best Ind.	8802R(Lot)		

COMMENTS: (1) Cs-137 (1mCi, Blue Book No. 31) in storage and not used (last leak tested 3/17/86).

(2) Cl-36 (Blue Book No. 50) is a disc, not a vial; Beta Reference Source.

(3) Tu-99 (Blue Book No. 49) is a disc, not a button; Beta Reference Source.

(4) Cs-137 needles (Blue Book Pages 75, 77, 78 and 79) leak tested on 12/4/90.

EXHIBIT 18

ROOM 621D (Moved from 622D)

(Nuclear Medicine "HOT" Lab)

<u>RADIOISOTOPE</u>	<u>DESCRIPTION</u>	<u>ACTIVITY</u>	<u>DATE</u>	<u>MFR</u>	<u>SERIAL/MODEL</u>	<u>BB PAGE</u>
H-3 (10ml)	Liquid Water Std.	2.24×10^6 DPM/ml	8/29/77	NEN	697-144-1	25
H-3 (10ml) "	Tritiated Water	2.52×10^6 DPM/g	4/10/72	PACKARD	-	16
C-14	Sodium Carbonate Ampoule	2.78×10^7 DPM/g 12.50 μ Ci/g 54 μ Ci TOTAL	3/1/82	AMERSHAM	CFY.64	36
C-14 (4.94ml)	Toluene	8.655×10^5 DPM/g	2/84	AMERSHAM	C-188	72

COMMENT: (1) Sources in small refrigerator (labelled).

EXHIBIT 18PAGE 12 OF 20 PAGE(S)

ROOM 624A

(Dr. C. Hall/Researcher)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB PG
C-14(10ml)	Toluene Ampoule	4.5x10 ⁵ DPM/ml	2/15/79	NEN	NES-006 897-242	59
Co-57	ROD	0.133 μ Ci	9/22/78	NEN	-	57
Zn-65	ROD	1.36 μ Ci	9/28/76	NEN	-	56
Cs-137	ROD	-	-	Baird Atomic	3149-21	58
Cs-137	ROD	0.25 μ Ci	4/1/85	Packard	065	61

COMMENTS: (1) GAMMA/TRI-CARB Standards in Room 624A Refrigerator
(labelled); door to room labeled and locked.

ROOM 620A (MOVED FROM 627B)

(Dr. C. Hurwitz/Researcher)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
H-3	Vial	234,900DPM < 0.2 μ Ci	11/10/81	Packard	422		44
C-14	Vial	102,300DPM < 0.1 μ Ci	7/31/82	Packard	98		45

COMMENTS: (1) In locked safe (labelled).

ROOM 621D (Moved from 628D)
(Nuclear Medicine "Hot" Lab)

<u>RADIONUCLIDE</u>	<u>DESCRIPTION</u>	<u>ACTIVITY</u>	<u>DATE</u>	<u>MFR</u>	<u>SERIAL/MODEL</u>	<u>BB PG</u>
Sr-90	Disc	0.005 μ Ci	6/12/70	Tracerlab	-	3
Cs-137	Disc	1.0 μ Ci	-	-	-	10
Bi-210	Button	0.0204 μ Ci	2/10/75	NEN	NES-200F	11
C-14	Key Chain	0.5 μ Ci	-	-	CS-4A	12 COMMENT 1
Sr-90	Eye Applicator	100mCi	5/17/65	Atlantic Res Lab	ARC-81-124	17 COMMENT 2
Cs-137	Vial (Gel)	106.0 μ Ci	8/23/77	Capintec	319-074-47	24
Co-60	Vial (Gel)	49.0 μ Ci	8/28/79	NEN	354-0879A-30	29
Cs-137	Disc	8 μ Ci	-	-	CS-7A	33
Co-57	Vial (Gel)	5.2mCi	8/19/81	Capintec	2060881B-17	34
Ba-133 (Sim. I-131)	Rod	0.115 μ Ci	6/1/82	Isotope Prod. Lab	9708	35
Co-57	Disc	0.1245 μ Ci	1/15/85	Isotope Prod. Lab	12556-2	37
Cs-137	Button	10 μ Ci	-	Amersham	15434	2
I-129	Disc	0.0989 μ Ci	3/1/85	Isotope Prod. Lab	130-86-2	40
Ba-133	Vial (Gel)	254.6 μ Ci	8/25/82	Capintec	3580682A03	61
Co-57	Vial (Gel)	4.991mCi	9/13/82	Capintec	2060882C25	62
Cs-137	Vial (Gel)	99.3 μ Ci	9/24/82	Capintec	90170582A20	64
Co-60	Vial (Gel)	98.5 μ Ci	7/15/82	Capintec	90230382A19	67
H-3	Standards (7)	1.58 μ Ci	4/1/83	Amersham	180050	68 COMMENT 3
Ba-133	Rod	0.103 μ Ci	5/1/85	NEN	NES1385050185	73
Co-57	Flood	5mCi	8/20/87	NEN	391038-01	76
I-129	Rod	0.077 μ Ci	8/6/85	NEN	NES1355	80
Cs-137	Disc	0.005 μ Ci	6/10/70	Tracerlab	-	3
I-129	Rod	0.1064 μ Ci	-	Isotope Prod. Lab	-	81

COMMENTS: (1) C-14 (Blue Book Page 12) used for calibration of AC-21 B Probe.
(2) Sr-90 (Blue Book Page 17, Eye Applicator) leak tested on 12/4/90. Includes 0.005 μ Ci leak test disc source (no date or further information).
(3) H-3 (Blue Book Page 68) seven (7) liquid scintillation standard sets; Expiration Date April 1, 1988.

EXHIBIT 18

PAGE 15 OF 20 PAGE(S)

ROOM 628D

(Nuclear Medicine - Dose Preparation Lab)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
Co-57	Vial (Gel)	5.21mCi	12/21/88	Capintec	59021152-04	---	
Co-60	Vial (Gel)	95.6µCi	6/27/88	Capintec	59023024-08	---	
Cs-137	Vial (Gel)	99.3µCi	9/24/82	Capintec	90170587A20	---	
Co-57	Flood	5mCi	6/30/89	Dupont	5391139-02 NES-391	---	

COMMENTS: (1) Items not in Blue Book since recently received. All items used for Nuclear Medicine Q.A. on daily basis.

(2) Co-57 Vial (Gel) to be leak tested in December 1990;
Co-57 Flood leak tested December 4, 1990.

ROOM 621D (Moved from 628D)

 (Nuclear Medicine "Hot" Lab)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
I-129	Button	0.0888μCi	11/1/89	Isotope Prod. Lab	205-73-1		
Co-60	Disc	0.005μCi	6/12/70	Tracerlab	-		3
Cs-137	Cotton Tip	0.005μCi	6/10/70	Tracerlab	-		3
Co-60	Cotton Tip	0.005μCi	6/10/90	Tracerlab	-		3
C-14	Button	0.129μCi	9/74	NEN	192267-5		7
Cs-137	Red	0.107μCi	4/7/74	NEN	-		8
Co-60	Red	0.111μCi	7/23/74	NEN	-		9

COMMENTS: (1) I-129 not I-127. I-129 not included in Blue Book since received on 11/1/89.

(2) Blue Book Page 3 items part of Leak Test Companion Kit.

ROOM RT-116A

(Radiation Therapy Service - Linear Accelerator Room)

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RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
Cs-137	Wood	90 μ Ci	-	"Dosimeter Corp"	648	63	
	(Constancy source for Pocket Chambers)						
Sr-90	Solid	0.9mCi	1982		751293	60	
	(Contancy source for Therapy Ionization Chambers)						

COMMENTS: (1) Both sources placed in locked/labelled storage drawer of Therapy "L" Block. Pocheng Cheng, Ph.D., Therapy Physicist, to be source custodian. Sr-90 source leaked test on December 3 and 4, 1990.

ROOM 621D

(Nuclear Medicine "Hot" Lab)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
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Po-210	Static Master	<10 μ Ci	7/87	Fischer Sci.	1C200R	*	
Co-57	Rod	0.0853 μ Ci	1/15/85	Isotope Prod.	1256-1	*	
V-48	Liquid	2mCi	12/75	Amersham	VAS.1YD4007	*	
C-14	Liquid	250 μ Ci	-	Amersham	CFA.58	*	
H-3	Liquid	250 μ Ci	-	Amersham	TRK.636	*	

COMMENTS: (1) Items here not included in Blue Book.

(2) C-14 and H-3 stored in "Large" refrigerator (labelled).
Special Chemical Standards.

ROOM 619D

(Nuclear Medicine/Physicist Equipment Room)

RADIONUCLIDE	DESCRIPTION	ACTIVITY	DATE	MFR	SERIAL/MODEL	BB	PG
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Cs-137	Button	$\approx 8\mu\text{Ci}$	-	-	CS-7A	*	
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COMMENTS: (1) Not entered in Blue Book; used for Survey Meter counting check. Stored in lead pig.