

MVH Miami Valley Hospital

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Dayton, Ohio 45409-2793

Telephone: 513-223-6192

12 April, 1991

William H. Schultz, Chief
Nuclear Materials Safety Section I
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

License No. 34-00341-06
Docket No. 030-02643

Dear Mr. Schultz:

This is in response to your letter of 28 March, 1991 detailing a License violation found during the inspection conducted by Ms. T. L. Simmons on 6 March, 1991. The inspection revealed that several I-125 sealed sources in the Biomedical Engineering Department were not leak-checked every six months as required.

The following steps have been taken since we received the notice of violation:

1. All of the I-125 sealed sources that have been here longer than six months were leak-checked on 8 April, 1991. None were found to be leaking. A copy of the leak-check results is enclosed.
2. The I-125 sealed sources have been added to the Nuclear Medicine sealed sources leak check list, and will be leak-checked along with all of our other sealed sources at the required intervals of time. A copy of this list is enclosed.
3. Full compliance with our NRC License was achieved on 8 April, 1991.

If you have any further questions, please let me know.

Sincerely,

Donald R. Ruessegger, Jr.
Donald R. Ruessegger, Jr.
Chief, Medical Physics Section
Radiation Safety Officer

IE07
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APR 19 1991

Date: 4/8/91

NUCLEAR MEDICINE
SEALED SOURCES LEAK CHECK
BIOMEDICAL ENGINEERING I-125 SEALED SOURCES

A. Cs-137 Standard Activity (0.084 uCi on 10/1/72)
Time (T) = 18.51608 Years
 $A(T) = (0.084) \exp(-0.693T/30) = 0.054767 \text{ uCi}$

B. Cs-137 Standard Efficiency
Standard Total Count Rate = 59621 CPM
Background Count Rate = 161 CPM
Standard Net Count Rate = 59460 CPM
Efficiency = $9.21E-07 \text{ uCi/CPM}$

C. Wipe Activity (Limit is 0.005 uCi)

Wipe Number	Source	Total CPM	Net CPM	Activity (uCi)
1	I-125: 957 mCi 4/13/90: BioMed Eng	148	-13	-0.0000119740
2	I-125: 1066 mCi 8/14/90: BioMed Eng	166	5	0.0000046054

OK

4/8/91 I-125 SOURCE WIPES DRR/MAH

SS	BLANK	BKG	APR '90	AUG '90	DRR
53	3.00	6580.33	59621.00	5+d	0.00
54	3.00	18.66	161.00	B	0.00
55	3.00	12.33	① 148.33	4/90	0.00
56	3.00	14.33	② 166.00	8/90	0.00
57	3.00	16.33	167.66	7/91	0.00

DRR

DRR
4-11-91

Date _____

SEALED SOURCES LEAK CHECK LIST

Wipe Number	Source
1.	Co-57 Vial: 5.2 mCi: Serial-S206037-062: 5/2/89
2.	Co-57 Vial: 5.7 mCi: Serial-S206016-42: 11/2/87
3.	Co-57 Disc: 10.0 mCi: Serial-392086-04: 10/13/88
4.	Co-57 Disc: 370 MBq: Serial-EHSC40: #959: 1/19/90
5.	Cs-137 Calibrator: 49.7 mCi: Serial-1086: 11/1/78
6.	Cs-137 Vial-E: 211 uCi: Serial-319-069-19
7.	Cs-137 Vial: 273.6 uCi: Serial-3186MA: 6/1/81
8.	I-125: BioMed Eng <u>957 mCi</u> : <u>4/13/90</u>
9.	I-125: BioMed Eng <u>1066 mCi</u> : <u>8/14/90</u>
10.	I-125: BioMed Eng <u>1029 mCi</u> : <u>12/13/90</u>