

Dec/Dec B



Radiation Oncologists

Radiation Physicist

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RADIATION ONCOLOGY DEPARTMENT

January 2, 1991

13-11385-01

Mr. Bill Reichhold
Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Reichhold:

This is in response to your request through the phone two weeks ago regarding the radiation survey of the adjacent areas after implanting radioactive sources in a patient.

We have performed five implants with radioactive Cs-137 sources since the additional lead shielding was added to the room (498 AB) which was designated for the procedure. Enclosed please find the records of radiation survey for these implants.

As shown on the surveys, the exposure rate that the adjacent areas were well below 2^{mR}/hr. level. We believe that the room shielding is adequate with added lead sheets, and the exposure rate at adjacent areas is in compliance with the regulatory limit.

Please let me know if you have any questions. Thank you very much for your assistance in this matter.

Sincerely yours,

Shih-shen Ling
Shih-shen Ling, Ph.D.
Radiation Physicist

SL:sew

Enc.

cc: Steven E. Wdowka, M.D.,
Radiation Safety Officer

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REG3 LIC30
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MONITORING & SURVEY RECORD
FOR PATIENTS WITH
INTRACAVITARY OR INTERSTITIAL RADIOACTIVE SEALED SOURCES

PATIENT'S NAME: Smith, Vera ROOM #: 498 ab
 DATE: 9-18-90 SOURCES: TYPE Cs-137 MG-EQUIV 39.72 mg
4 sources 101.3 mCi

I. SURVEY READINGS:

A. Patient's Room:

Sum 9/18/90
1640 hr

1. Bedside	<u>40 m/hr</u>
2. Three Ft. from Bed	<u>15 m/hr</u>
3. Six Feet from Bed	<u>60 m/hr</u>
4. Doorway	<u>0.7 m/hr</u> <i>door open</i>

B. Adjoining Rooms:

out
12:50
9/20/90

1. Lounge:	<u>0.2 m/hr</u>
2. Command <i>SL</i>	<u>0.3 m/hr</u>
3. Areas above and below previously checked with radiation at essentially background levels <i>9/18/90</i>	

C. After Removal of Sources:

1. Patient:	<u>40.1 m/hr</u>
2. Patient's Room:	<u>40.1 m/hr</u>

AG

SUGGESTED MAXIMUM TIME/DAY FOR ATTENDING PERSONNEL

<u>Exposure-rate</u>	<u>Time</u>
1.0 MR/Hour	5 hours
2.0	2 1/2 hours
5.0	1 hour
10.0	30 minutes
20.0	15 minutes
30.0	10 minutes
40.0	7 minutes
50.0	6 minutes

SAVE FOR R.O.

MONITORING & SURVEY RECORD
FOR PATIENTS WITH
INTRACAVITARY OR INTERSTITIAL RADIOACTIVE SEALED SOURCES

PATIENT'S NAME: Marguerite Sayer ROOM #: C-98 AB
DATE: 10/5/90 SOURCES: TYPE Cs-137 MG-EQUIV 32.7 mg

82 mCi
(P6, V5)

I. SURVEY READINGS:

A. Patient's Room:

Source in: 10/9/90
1415 hr.

- 1. Bedside 15 mr/hr
- 2. Three Ft. from Bed ~10 mr/hr
- 3. Six Feet from Bed ~5 mr/hr
- 4. Doorway 0.3 mr/hr

B. Adjoining Rooms:

out 10/11/90
1215

- 1. Comp: 0.2 mr/hr
- 2. St. Consider: <0.1 mr/hr St 10/9/90
- 3. Areas above and below previously checked with radiation at essentially background levels St 10/9/90

C. After Removal of Sources:

- 1. Patient: 62.1 mr/hr
- 2. Patient's Room: 2.1 mr/hr
S.G.

SUGGESTED MAXIMUM TIME/DAY FOR ATTENDING PERSONNEL

<u>Exposure-rate</u>	<u>Time</u>
1.0 MR/Hour	5 hours
2.0	2 1/2 hours
5.0	1 hour
10.0	30 minutes
20.0	15 minutes
30.0	10 minutes
40.0	7 minutes
50.0	6 minutes

MONITORING & SURVEY RECORD
FOR PATIENTS WITH
INTRACAVITARY OR INTERSTITIAL RADIOACTIVE SEALED SOURCES

PATIENT'S NAME: Sailors, Marilyn ROOM #: 498a6

DATE: 11/27/90 SOURCES: TYPE Cs-137 MG-EQUIV 55.3 mg

(139.4 mc) *Pa et al*

I. SURVEY READINGS:

A. Patient's Room:

1. Bedside 45 mr/hr
2. Three Ft. from Bed 28 mr/hr
3. Six Feet from Bed ~10 mr/hr
4. Doorway 0.2 mr/hr

B. Adjoining Rooms:

1. Lounge: max 0.5 mr/hr
2. ~~SB~~ corridor 0.4 mr/hr
Some corridor 0.3 mr/hr
3. Areas above and below
previously checked with
radiation at essentially
background levels

SL
11/27/90

C. After Removal of Sources:

1. Patient: 0.1 mr/hr
2. Patient's Room: 0.1 mr/hr

SUGGESTED MAXIMUM TIME/DAY FOR ATTENDING PERSONNEL

Exposure-rate	Time
1.0 MR/Hour	5 hours
2.0	2 1/2 hours
5.0	1 hour
10.0	30 minutes
20.0	15 minutes
30.0	10 minutes
40.0	7 minutes
50.0	6 minutes

MONITORING & SURVEY RECORD
FOR PATIENTS WITH
INTRACAVITARY OR INTERSTITIAL RADIOACTIVE SEALED SOURCES

PATIENT'S NAME: Bruner, Phillis ROOM #: 498 a.6
 DATE: 12/11/90 SOURCES: TYPE G-137 MG-EQUIV 18.42 mg
(47 mCi)

I. SURVEY READINGS:

(2 sources)

A. Patient's Room:

Some loaded
12/11/90 1:50 PM

- 1. Bedside 22 mR/hr
- 2. Three Ft. from Bed 8 mR/hr
- 3. Six Feet from Bed _____
- 4. Doorway 0.3 mR/hr

B. Adjoining Rooms:

removed
12/13/90 0945 hr

- 1. *lounge*: 0.1 mR/hr
- 2. *SE corridor*: 0.2 mR/hr *Sh*
- 3. *S. Corridor*: 0.1 mR/hr *12/11/90*
- 3. Areas above and below previously checked with radiation at essentially background levels

C. After Removal of Sources:

- 1. Patient: 0.1 mR/hr
- 2. Patient's Room: 0.1 mR/hr

OK
12/12/90

SUGGESTED MAXIMUM TIME/DAY FOR ATTENDING PERSONNEL

<u>Exposure-rate</u>	<u>Time</u>
1.0 MR/Hour	5 hours
2.0	2 1/2 hours
5.0	1 hour
10.0	30 minutes
20.0	15 minutes
30.0	10 minutes
40.0	7 minutes
50.0	6 minutes

MONITORING & SURVEY RECORD
FOR PATIENTS WITH
INTRACAVITARY OR INTERSTITIAL RADIOACTIVE SEALED SOURCES

PATIENT'S NAME: Ballinger, Shirley ROOM #: 498ab
 DATE: 12-18-90 SOURCES: TYPE Cs-137 MG-EQUIV 28 mg
2 Co sources (71 mCi)

I. SURVEY READINGS:

A. Patient's Room:

Sources Loaded
12/18/90
 1800 hr

1. Bedside 30 m^r/hr
2. Three Ft. from Bed 10 m^r/hr
3. Six Feet from Bed ~ 5 m^r/hr
4. Doorway 0.4 m^r/hr

B. Adjoining Rooms:

Source out
12/20/90
 (3) = hr

1. # Corridor S - 0.2 m^r/hr S.E. 0.2 m^r/hr
2. # lounge - 0.2 m^r/hr
3. Areas above and below previously checked with radiation at essentially background levels 12/18/90

C. After Removal of Sources:

1. Patient: 0.1 m^r/hr
2. Patient's Room: 0.1 m^r/hr

SUGGESTED MAXIMUM TIME/DAY FOR ATTENDING PERSONNEL

<u>Exposure-rate</u>	<u>Time</u>
1.0 MR/Hour	5 hours
2.0	2 1/2 hours
5.0	1 hour
10.0	30 minutes
20.0	15 minutes
30.0	10 minutes
40.0	7 minutes
50.0	6 minutes