

JOHNSON COUNTY MEMORIAL HOSPITAL

P.O. Box 549

Franklin, Indiana 46131

(317) 736-3300

Ms. B. J. Holt
Materials Licensing Section
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Re: License No. 13-14817-01 - Amendment # 6

Dear Ms. Holt:

Enclosed is the close-out survey of the previous Nuclear Medicine and Special Chemistry facilities. This is additional information, not a new request.

The close-out survey was performed on December 14 and 15, 1984 by Cheri Chernisky CNMT., B.S., using a low range survey meter and performing wipe tests in areas approximately 1 square meter.

Attached are diagrams of each area surveyed with the observed MR/hr as well as CPM and D.P.S. obtained from wipe tests of the designated areas.

Background levels are provided and each count or reading is depicted by numbers corresponding to the diagrams provided.

The Survey meter is a Ludlum Model 2 with a range of 0.0 to 5.0 MR/hour and scales of 0.1, 1.0 and 10.0. The meter was calibrated by Jim Durlacher, a certified radiation expert, on June 25, 1984.

The wipe tests were evaluated using a Nuclear Data Well Counter which was calibrated upon installation on November 19, 1984 and is rechecked before each use with a Cs 137 source.

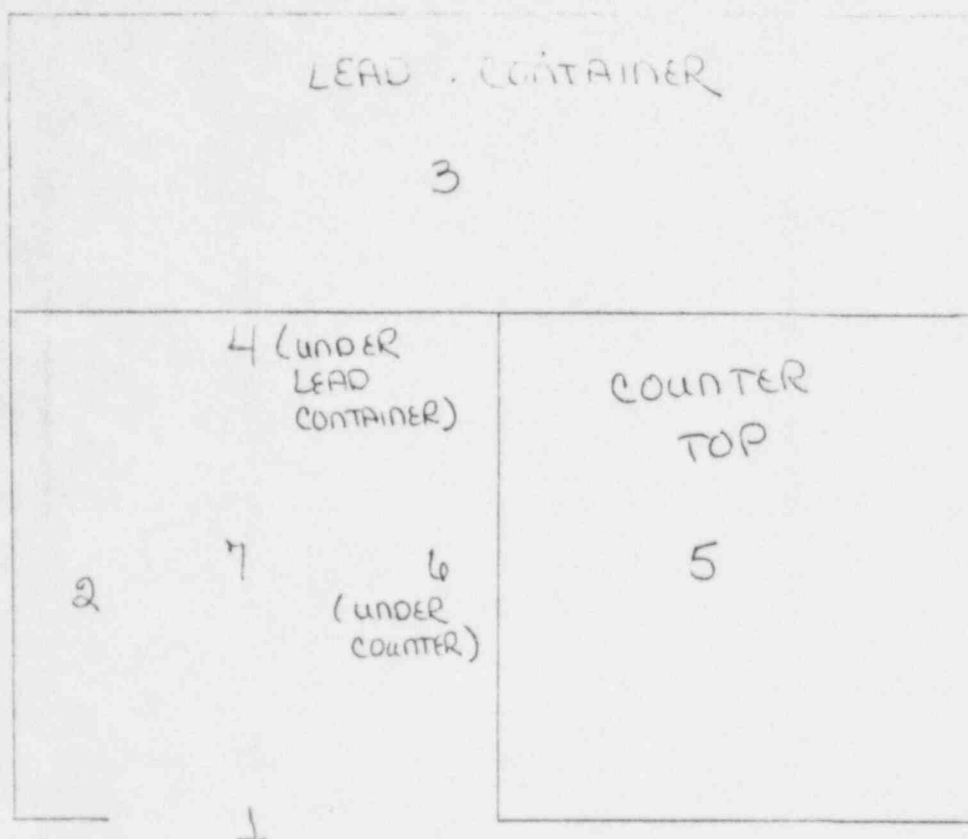
Since we purchase on a unit dose system, no generator sources or other high level sources are of concern.

Please advise if you need any additional information.

Respectfully,

Jess Turner
Mgr., Radiological Services

HOT LAB RESULTS

WIRE TEST

| | |
|------------|------------------|
| BACKGROUND | 63 cpm (79 dpm) |
| AREA 1 | 84 cpm (105 dpm) |
| AREA 2 | 76 cpm (95 dpm) |
| AREA 3 | 82 cpm (102 dpm) |
| AREA 4 | 69 cpm (86 dpm) |
| AREA 5 | 60 cpm (75 dpm) |
| AREA 6 | 80 cpm (100 dpm) |
| AREA 7 | 73 cpm (91 dpm) |

LUDLUM SURVEY

| | |
|------------|------------|
| BACKGROUND | 0.01 mR/hr |
| AREA 1 | 0.01 mR/hr |
| AREA 2 | 0.02 mR/hr |
| AREA 3 | 0.01 mR/hr |
| AREA 4 | 0.01 mR/hr |
| AREA 5 | 0.02 mR/hr |
| AREA 6 | 0.02 mR/hr |
| AREA 7 | 0.01 mR/hr |

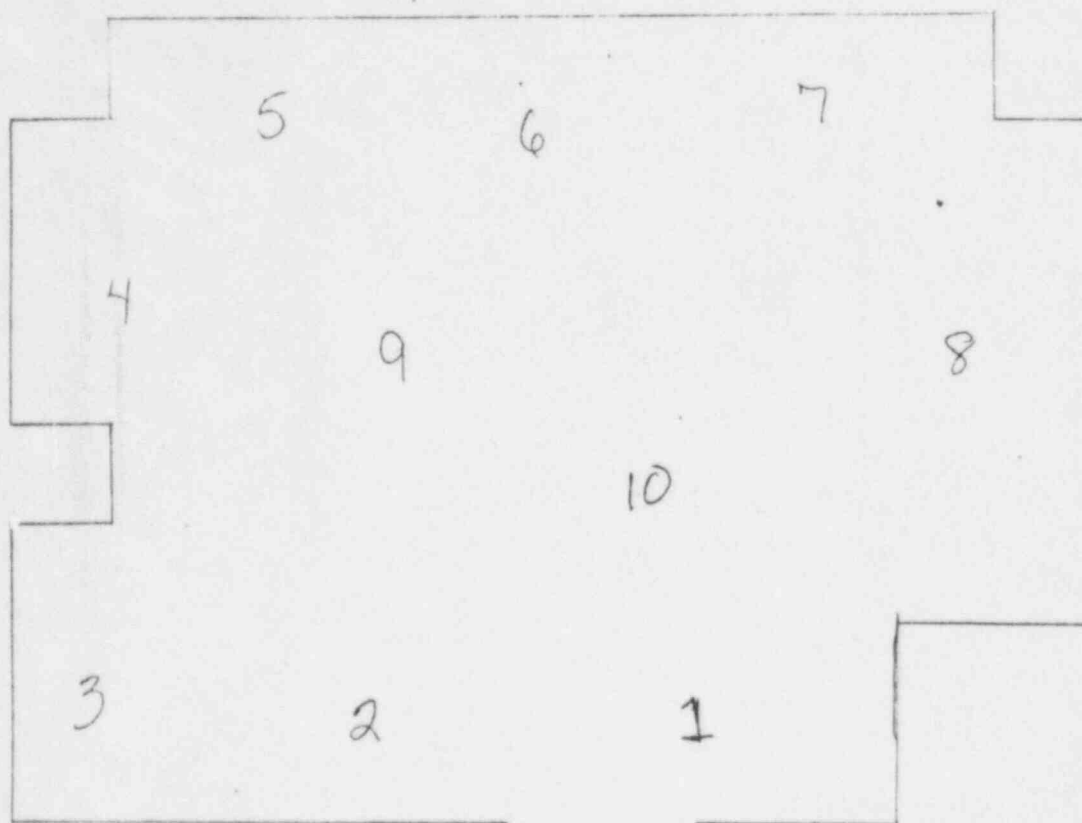
USING EQUATION $\text{EFFICIENCY} = \text{CPM} / 2.22 \times 10^6 \times \text{UCIX} \times 100$ THE DPM WAS CALCULATED BY USING THE EQUATION $\text{CPM} / \text{EFFICIENCY}$

THE EFFICIENCY FOR TECHNETIUM WAS 79.73%.

ALL CPM AND DPM VALUES ARE GROSS VALUES AND ALL VALUES WERE LESS THAN 200 DPM PER 100 CM²

ALL AREA SURVEYS WERE DONE WITHIN 1 CM OF AREA MEASURING. EACH AREA WAS 100 CM².

SCAN ROOM RESULTS



WIS TEST

| | |
|------------|------------------|
| BACKGROUND | 63 cpm (79 dpm) |
| AREA 1 | 75 cpm (94 dpm) |
| AREA 2 | 71 cpm (89 dpm) |
| AREA 3 | 70 cpm (87 dpm) |
| AREA 4 | 80 cpm (100 dpm) |
| AREA 5 | 75 cpm (94 dpm) |
| AREA 6 | 77 cpm (96 dpm) |
| AREA 7 | 62 cpm (77 dpm) |
| AREA 8 | 56 cpm (70 dpm) |
| AREA 9 | 81 cpm (101 dpm) |
| AREA 10 | 62 cpm (77 dpm) |

LU DLUM SURVEY

| | |
|------------|------------|
| BACKGROUND | 0.01 mR/hr |
| AREA 1 | 0.01 mR/hr |
| AREA 2 | 0.01 mR/hr |
| AREA 3 | 0.01 mR/hr |
| AREA 4 | 0.01 mR/hr |
| AREA 5 | 0.01 mR/hr |
| AREA 6 | 0.01 mR/hr |
| AREA 7 | 0.02 mR/hr |
| AREA 8 | 0.01 mR/hr |
| AREA 9 | 0.01 mR/hr |
| AREA 10 | 0.01 mR/hr |

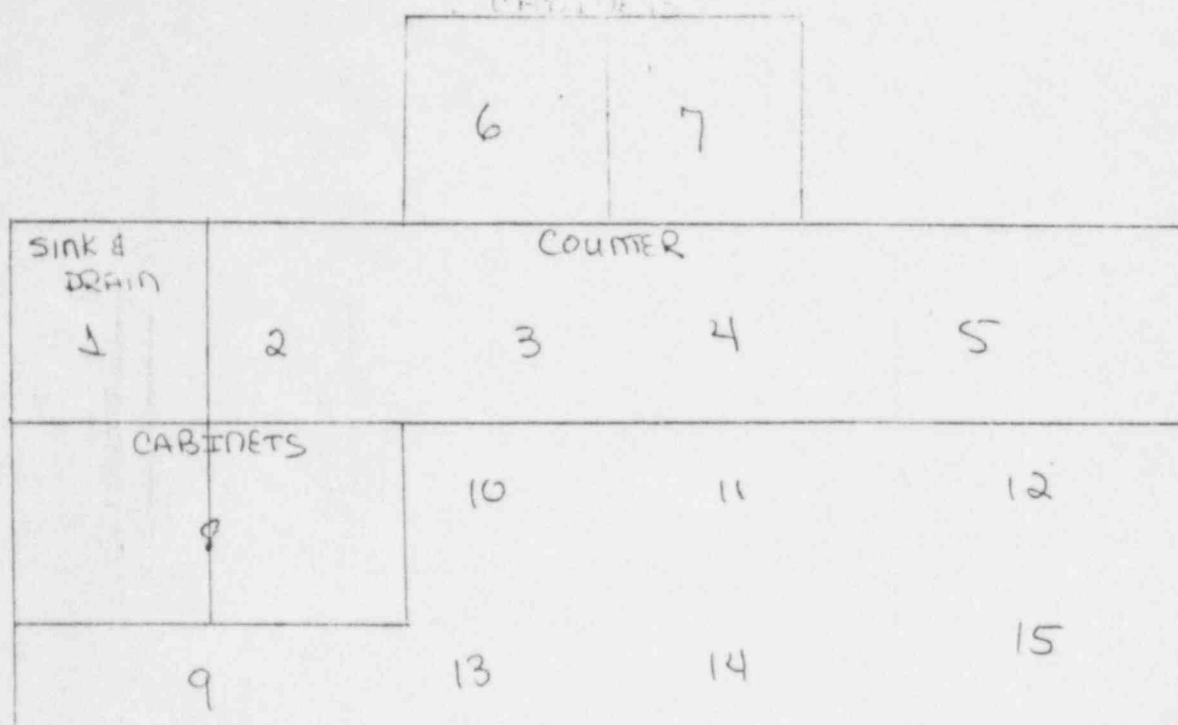
USING EQUATION $\text{EFFICIENCY} = \frac{\text{CPM}}{2.22 \times 10^6} \times \text{uci} \times 100$ THE DPM WAS CALCULATED BY USING THE EQUATION $\text{CPM}/\text{EFFICIENCY}$.

THE EFFICIENCY FOR TECHNETIUM WAS 79.73%.

ALL CPM AND DPM VALUES ARE GROSS VALUES AND ALL VALUES WERE LESS THAN 200 DPM PER 100 CM².

ALL AREA SURVEYS WERE DONE WITHIN 1 CM OF AREA MEASURING. EACH AREA WAS 100 CM².

SPECIAL CHEMISTRY RESULTS

WIPE TEST

| | Co-57 GROSS | I-125 GROSS | Co-57 NET | I-125 NET |
|------------|-------------------|--------------------|-----------|-----------|
| BACKGROUND | 100 cpm (287 dpm) | 302 cpm (1758 dpm) | | |
| AREA 1 | 100 cpm (323 dpm) | 329 cpm (1972 dpm) | 36 dpm | 215 dpm |
| AREA 2 | 100 cpm (345 dpm) | 318 cpm (1851 dpm) | 58 dpm | 93 dpm |
| AREA 3 | 90 cpm (273 dpm) | 340 cpm (1979 dpm) | -17 dpm | 221 dpm |
| AREA 4 | 110 cpm (312 dpm) | 311 cpm (1810 dpm) | 25 dpm | 52 dpm |
| AREA 5 | 111 cpm (307 dpm) | 322 cpm (1874 dpm) | 20 dpm | 116 dpm |
| AREA 6 | 125 cpm (345 dpm) | 317 cpm (1845 dpm) | 58 dpm | 87 dpm |
| AREA 7 | 104 cpm (287 dpm) | 304 cpm (1769 dpm) | 0 dpm | 11 dpm |
| AREA 8 | 98 cpm (270 dpm) | 301 cpm (1752 dpm) | -17 dpm | -6 dpm |
| AREA 9 | 125 cpm (345 dpm) | 326 cpm (1898 dpm) | 58 dpm | 140 dpm |
| AREA 10 | 129 cpm (356 dpm) | 331 cpm (1927 dpm) | 69 dpm | 169 dpm |
| AREA 11 | 105 cpm (289 dpm) | 299 cpm (1740 dpm) | 2 dpm | -18 dpm |
| AREA 12 | 109 cpm (301 dpm) | 300 cpm (1746 dpm) | 14 dpm | -12 dpm |
| AREA 13 | 118 cpm (326 dpm) | 335 cpm (1949 dpm) | 39 dpm | 191 dpm |
| AREA 14 | 117 cpm (323 dpm) | 328 cpm (1909 dpm) | 36 dpm | 151 dpm |
| AREA 15 | 111 cpm (307 dpm) | 316 cpm (1839 dpm) | 20 dpm | 81 dpm |

LUDLUM SURVEY

| | |
|------------|------------|
| BACKGROUND | 0.01 mR/hr |
| AREA 1 | 0.01 mR/hr |
| AREA 2 | 0.01 mR/hr |
| AREA 3 | 0.02 mR/hr |
| AREA 4 | 0.02 mR/hr |
| AREA 5 | 0.02 mR/hr |
| AREA 6 | 0.02 mR/hr |
| AREA 7 | 0.02 mR/hr |
| AREA 8 | 0.01 mR/hr |
| AREA 9 | 0.01 mR/hr |
| AREA 10 | 0.02 mR/hr |
| AREA 11 | 0.01 mR/hr |
| AREA 12 | 0.01 mR/hr |
| AREA 13 | 0.01 mR/hr |
| AREA 14 | 0.02 mR/hr |
| AREA 15 | 0.01 mR/hr |

USING EQUATION $\text{EFFICIENCY} = \text{CPM} / 2.22 \times 10^6 \times \text{uci} \times 100$ THE DPM WAS CALCULATED BY USING THE EQUATION $\text{CPM} / \text{EFFICIENCY}$.

THE EFFICIENCY FOR Co-57 WAS 12.15% AND FOR I-125 THE EFFICIENCY WAS 17.18%.

AFTER SUBTRACTING BACKGROUND FOR BOTH NUCLIDES THE DPM FOR BOTH WERE LESS THAN THE REQUIRED 200 DPM PER 100 CM². IN SEVERAL CASES THE DPM WAS ACTUALLY LESS THAN THE BACKGROUND DPM.

ALL AREA SURVEYS WERE DONE WITHIN ONE CM OF THE AREA BEING MEASURED. EACH AREA WAS APPROXIMATE 100 CM².



**Johnson
County
Memorial
Hospital**

1125 WEST JEFFERSON STREET
P. O. BOX 549
FRANKLIN, INDIANA 46131
(317) 736-3300

November 5, 1985

Ms. B.J. Holt
Materials Licensing Section
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Rd.
Glen Ellyn, IL 60137

Re: License #13-14817 Control #79723

Dear Ms. Holt:

This letter is in response to your request for written documentation of administrative responsibility regarding the N.R.C. licensure.

Gwynn Christie as Director of Diagnostic and Rehabilitative Services at Johnson County Memorial Hospital has administrative responsibility for the Radiology Department and also the N.R.C. licensure.

Sincerely,

Norbert G. Smith
Administrator

NGS/tb

CONVERSATION RECORD

TIME

9:15

DATE

10/1/85

TYPE

☐ VISIT☐ CONFERENCE☒ TELEPHONE☐ INCOMING☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT
WITH YOUORGANIZATION (Office, dept., bureau,
etc.)

TELEPHONE NO.

SUBJECT

SUMMARY

I requested the following additional info:

- 1) Close-out survey of Chemistry Lab.
- 2) Designation of new KSO
- 3) Letter from administrator
giving authorization for
Gwynn Christie to sign off
on correspondence to NRC.

ACTION REQUIRED

30 day response

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

ACTION TAKEN

SIGNATURE

TITLE

DATE