

Hinsdale Hospital



120 North Oak Street
Hinsdale, Illinois 60521
312/887-2400

November 7, 1985

Medical Licensing
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

U.S. N.R.C.
FEE MEAL BRANCH

85 NOV 14 AM 12:24

RECEIVED

Re: Survey (partial) of Hot Lab/License #12-03536-03
Amendment # 41

Dear Sirs:

Enclosed is a survey of the storage room of the old lab. We wish this to be released for construction as soon as possible. The old Hot Lab close out survey will be sent as soon as possible.

There are no permanent structures in the storage area. Thus, the survey concentrates on the walls and floors only.

The survey consisted of going over the walls with a G.M. counter Ludlum model 14C, serial 4196 (calibrated by Health Physics Associates NRC License 12-09160-01 on 4-23-85). In the doorway (west) next to the main Hot Lab, the reading was 0.45 mR/hr from sources in the main Hot Lab. At the rear E side of the storage area, the reading was 0.1 mR/hr. Typical readings in each area are shown in the sketch. No hot spots were found.

Each square meter as indicated in the sketch was wiped with an alcohol swab to an area in excess of 100 cm². These swabs were counted in a Picker scintillation well counter Model #621 940 Serial 255746. This was run at a window from 50 KeV to 500 KeV. It was calibrated with a ⁵⁷Co source of 483 dpm. This yielded an average of 59 counts and a background of 10 counts per 6 second run. This yields an efficiency of essentially 1 count per disintegration. Thus, a 200 dpm wipe would be

Close Survey
FEE EXEMPT
Continuation of Audit 41

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Date	11/14/85
Log	Nov 18 III
By	SK
Orig. To	ap
Action Comp	NOV 15 1985

RECEIVED
NOV 8 1985
REGION III

CONTROL NO. 80101

8602050325 851122
REG3 LIC30
12-03536-03 PDR



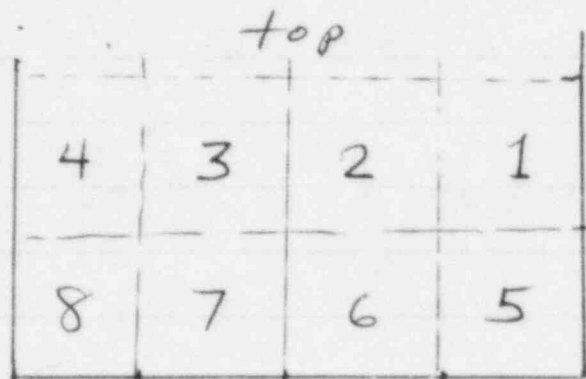
expected to yield 30 counts (20 + background of 10) for a 6 second count. The standard deviation for 30 counts is about 5.5 counts. Thus, any wipe with 19 counts or less is less than 200 dpm with a confidence of 5%. The data for the counts is shown on the data sheet keyed to the sketch. No evidence of any counts at 200 d.p.m. or above was seen.

Sincerely,

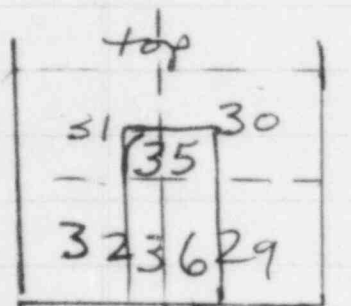
Lincoln B. Hubbard, Ph.D., R.S.O.
Certified Health Physicist

cc: Merlin Matter
Dennis Soappman
Michael Murphy, M.D.
Don Hanson

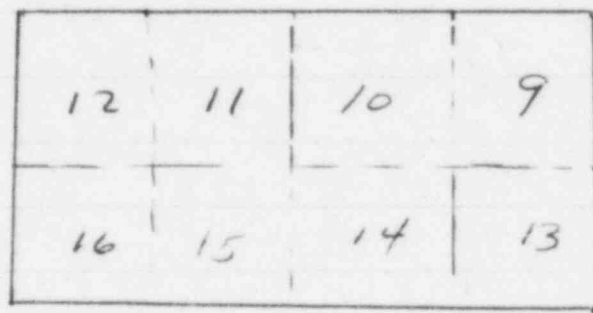
CONTROL NO. 80101



SOUTH WALL



BACK Panel
East

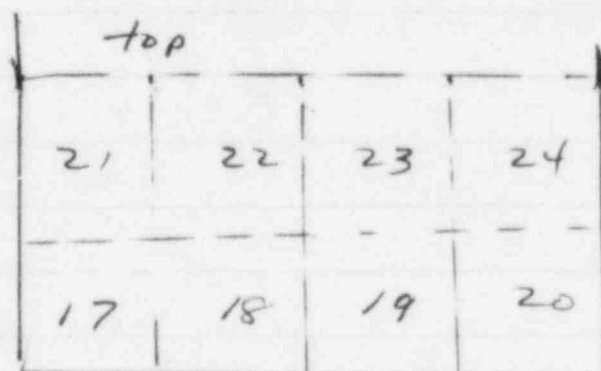


→ to
main
Hot
Lab

FLOOR ↓



Door
FRONT
west (door
to Hot Lab.



NORTH WALL

Sketch of locations in storage
area of old hot lab

11/7/85

Survey of 11/7/85

Location

Well counts

$< 30 \pm 11$

Survey
meter

1	24, 17	0.15
2	11	0.15
3	14	0.1
4	18	0.1
5	16	0.15
6	12	0.15
7	12	0.1
8	13	0.1
9	20, 14	0.4
10	18	0.2
11	12	0.1
12	16	0.1
13	15	0.3
14	13	0.2
15	13	0.1
16	15	0.1
17	8	0.2
18	8	0.15
19	15, 9	0.1
20	15	0.1
21	13	0.2
22	15	0.15
23	8	0.1
24	14	0.1
25	7	0.2
26	12	0.3
27	19, 18, 14	0.2
28	9	0.2
29	11	0.1

CONTROL NO. 80101

Location	Well Counts	Survey
30	11	0.1
31	11	0.1
32	6	0.1
33	11	0.45 ^{door} open
34	14	0.45 "
35	9	0.1
36	9	0.1

All well counts < 200 dpm at 5% confidence

All GM survey results at background
(Note near door this is higher due to material in Hot Lab)

LBH 11/7/85