

Medical Physics Consultants

Suite B
3200 West Liberty
Ann Arbor, Michigan 48104
(313) 662-3197

03785

February 23, 1981

United States
Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Cooper,

This letter is in response to a letter sent to West Shore Hospital from the Regional Licensing Section (copy enclosed). Please include in the application for renewal of Byproduct Material License No. 21-16277-01 that the procedures described in Appendix K and Appendix L will be followed regarding the use of Group IV and Group VI materials. We also request that the dose calibrator "Calibration Procedures" not be changed.

If you have any questions regarding the above, please don't hesitate to call us.

Sincerely,

Constance Little

Constance Little, M.S.
Radiation Physicist

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REG3 LIC30
21-16277-01 PDR

FEB 26 1981

File

MAY 24 1985

West Shore Hospital
ATTN: Burton O. Parks
Administrator
1465 East Parkdale Avenue
Mainstee, MI 49660

Gentlemen:

Enclosed is Amendment No. 07 to your NRC License No. 21-16277-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify NRC in writing of any change in mailing address.
5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with NRC. Any amendment request should be accompanied by the appropriate fee specified in 10 CFR Part 170.
6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.
7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

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REG3 LIC30
21-16277-01 PDR

West Shore Hospital

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MAY 24 1985

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions and representations in your license application will result in enforcement action against you in accordance with the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

If you have any questions or require clarification of any of the above stated information, contact us at (312) 790-5625.

Sincerely,

Original Signed By
J. R. Madera
Materials Licensing Section

Enclosure(s): Amendment No. 07

RII
Madera/ld
05/23/85



1465 EAST PARKDALE AVENUE • MANISTEE, MICHIGAN 49660 • (616)723-3501

May 3, 1985

USNRC Material Licensing Division
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Re: Amendment to license #21-16277-01

Gentlemen:

Please amend the radioactive materials license at West Shore Hospital to reflect the following changes:

- 1) Diagram D gives results of a close-out survey for the room our nuclear medicine department was located in.
- 2) Diagram A describes the floor plan of the room proposed for use as the nuclear medicine department. Diagram B gives the proposed room layout for equipment and also the (numbered) areas for daily and weekly surveys and wipes. Diagram C shows the location of radioactive waste storage in a locked storage cabinet in the basement. Access to this area is controlled and the cabinet is properly labeled.

Please contact either myself at (616) 723-3501 or Mr. Tony Mason (Medical Physics Consultants) at (313) 662-3197 with questions we can help clarify.

Sincerely,

Burton O. Parks
Administrator

BOP:kmt

Applicant	May 24, 1985
Check No.	12491 \$150
Amount for Registry	7C
Ex. 2.1.1.1	and
Date Check Paid	5/22/85
Received By	[Signature]

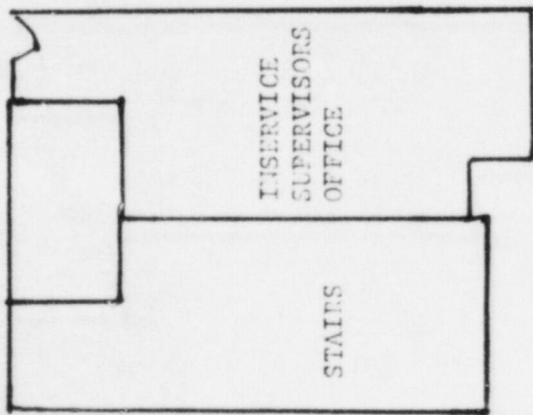
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REGION III

MAY 16 1985

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REG LIC30
21-16277-01 PDR

CONTROL NO. 78961

3rd FLOOR



2nd FLOOR

ROOMS ADJACENT TO NUCLEAR MEDICINE WEST SHORE HOSPITAL

FALL

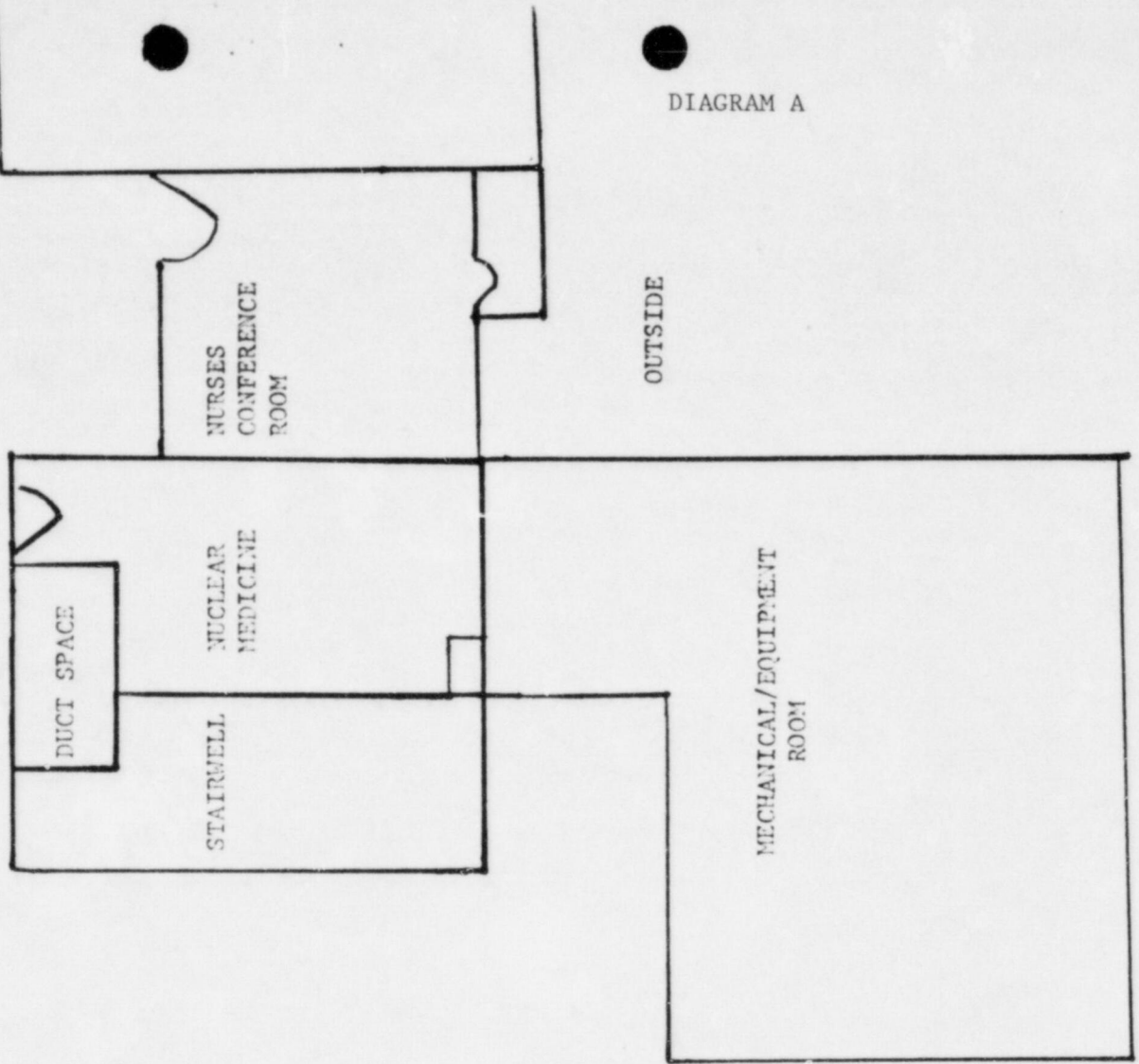
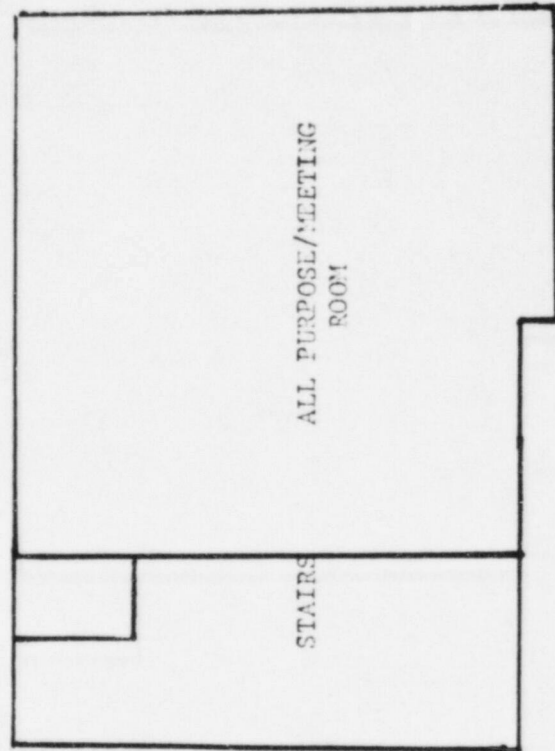


DIAGRAM A

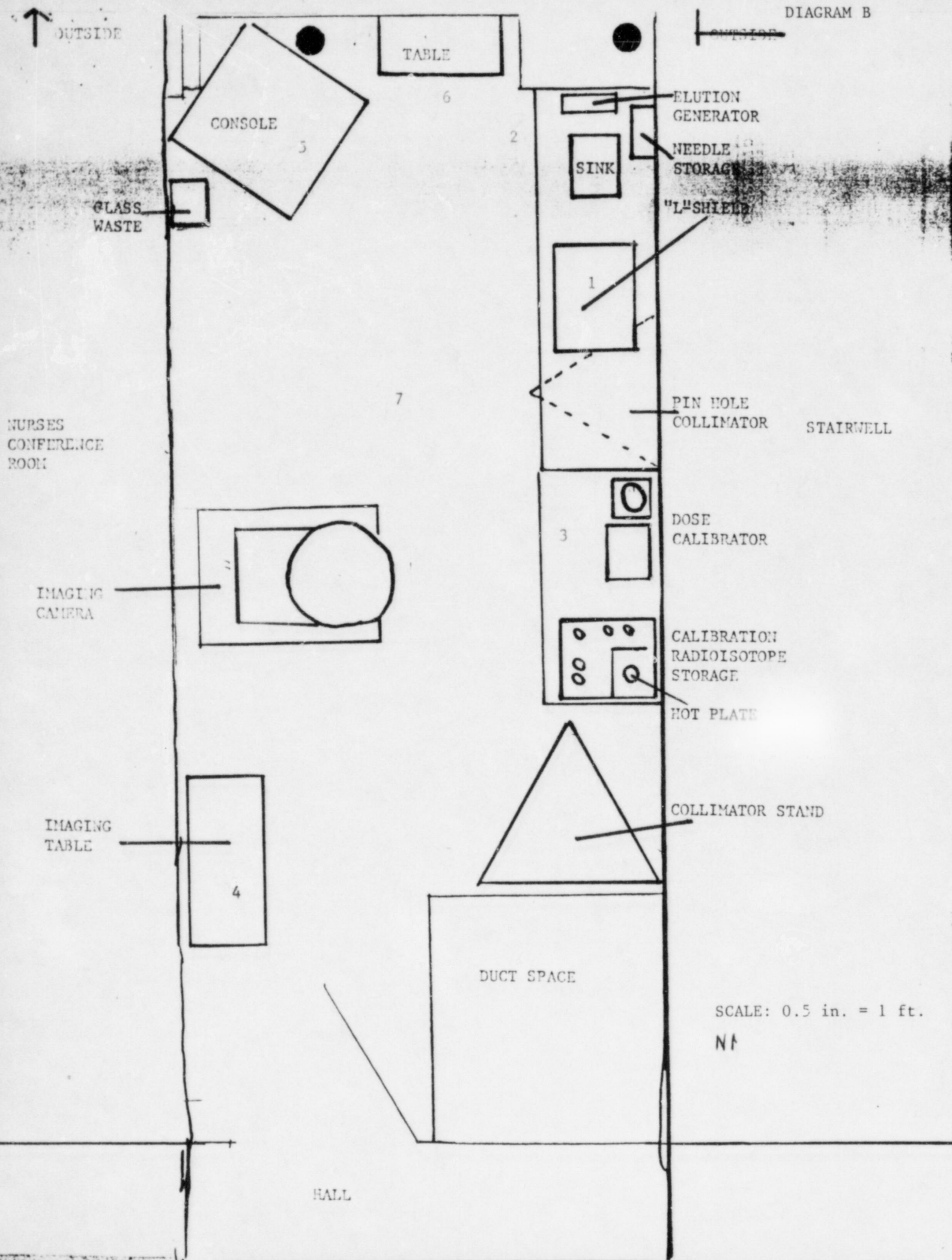
1st FLOOR



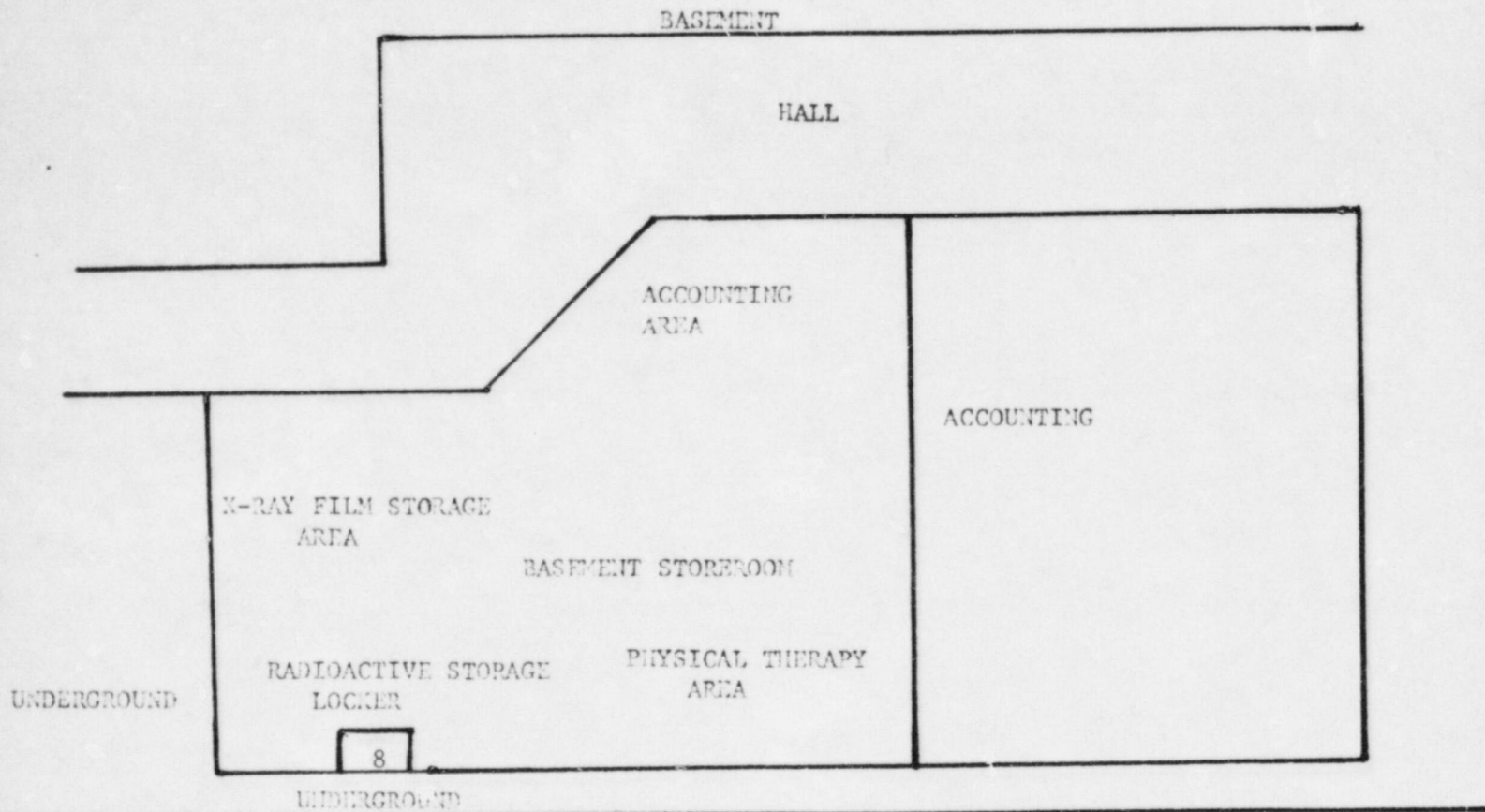
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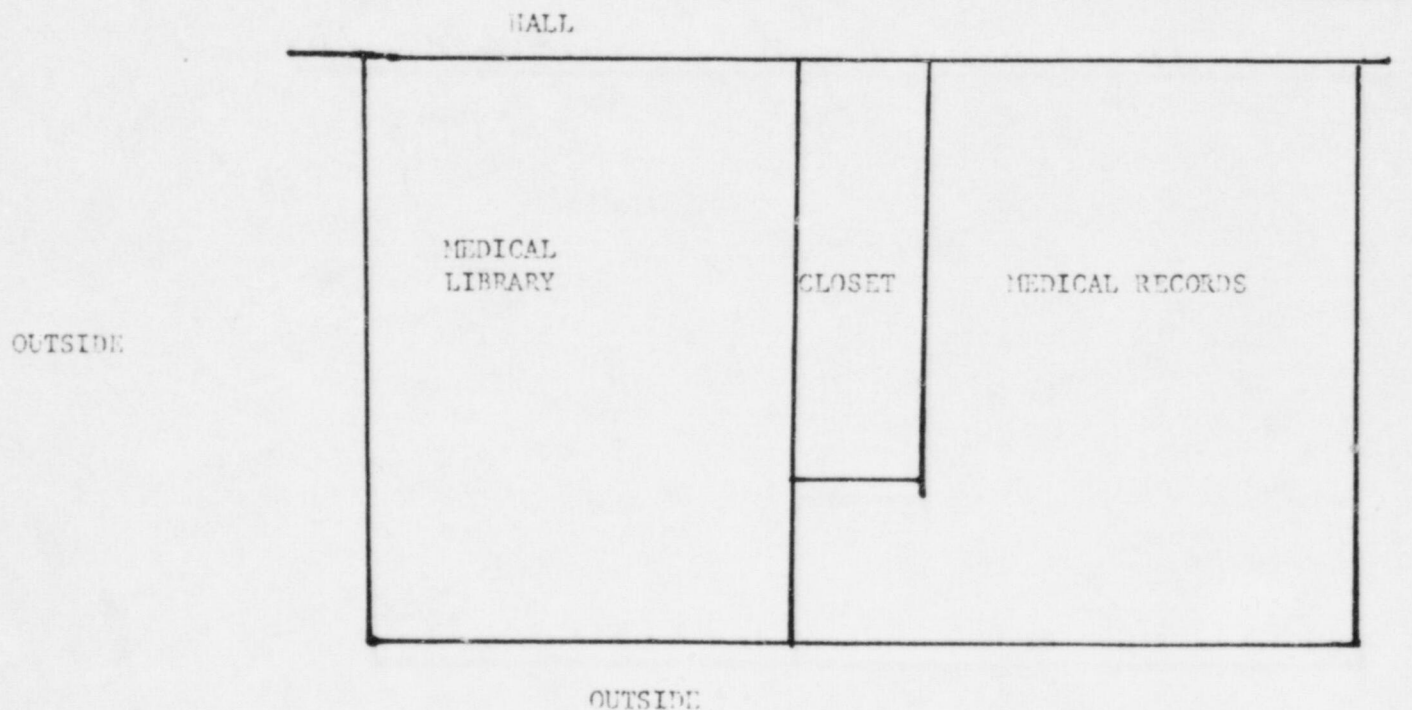
DIAGRAM B



WEST SHORE HOSPITAL-RADIOACTIVE STORAGE AREA



1st FLOOR



SCALE: 0.15 in. = 1 ft.

NA

West Shore Hospital
Close Out Survey/Wipe Test
outside

Meter: Victoreen
CDU 700

BKG = .04 mR/hr

Area Survey

- 1 = BKG
- 2 = BKG
- 3 = BKG
- 4 = BKG
- 5 = BKG
- 6 = BKG
- 7 = BKG

Radioactive Storage

1

Sink

2

4

5

Cupboard

3

6

7

NOTE:

All areas surveyed with the G-M meter were also wiped. The wipes were counted on a Picker uptake probe (see enclosed information). No detectable contamination greater than 0.005 was found.

Scale:

0.05 in. = 1 ft. N↑

MINIMUM DETECTABLE ACTIVITY

Instrument: Picker Uptake Probe
Range: 1 MeV
HV: 404
Window: 100 - 700 keV (Tc-99m, I-131, Co-57, Ba-133
Cs-137, Ga-67, Tl-201)
Background: 1121 cts/10 min.

MDA: $3\sqrt{R_b/t} = 31.76 \text{ cpm}$

MDA with Cs-137

Cs-137 was used as a worst case efficiency. Other radionuclides used in the laboratory would most likely have better efficiencies with the uptake probe. The above method should insure detection capability of 0.005 uCi of radioactive material on the test sample. Ten 1 minute counts of a 15.5 uCi Cs-137 source were taken.

1) 99534 cpm	6) 99497	
2) 98770	7) 98949	
3) 99299	8) 99591	
4) 99168	9) 98920	
5) 98501	10) 99157	
	$\Sigma = 991386$	$\bar{x} = 99138.6$

MDA = $31.76 \text{ cpm} / 6396 \text{ (cpm/uCi)} = 0.00497 \text{ uCi}$