

## APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION  
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS  
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
NUCLEAR MATERIAL SECTION B  
631 PARK AVENUE  
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
MATERIAL RADIATION PROTECTION SECTION  
101 MARIETTA STREET, SUITE 2900  
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
MATERIALS LICENSING SECTION  
796 ROOSEVELT ROAD  
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
MATERIAL RADIATION PROTECTION SECTION  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V  
MATERIAL RADIATION PROTECTION SECTION  
1450 MARIA LANE, SUITE 210  
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

☐ A. NEW LICENSE

☐ B. AMENDMENT TO LICENSE NUMBER

☒ C. RENEWAL OF LICENSE NUMBER 48-12878-01

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)

Riverview Hospital  
410 Dewey Street  
Wisconsin Rapids, Wisconsin 54494

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.

Same as Item 2

9001290320 B90131  
REG3 LIC30  
48-12878-01 PDR

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

TELEPHONE NUMBER

Linda T. Fink Stan A. Huber Consultants, Inc., New Lenox, IL 60451 (815) 485-6161

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical end/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY

7 C

AMOUNT

ENCLOSED

\$ 580.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE—CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE

DATE

*Daniel J. Hymans* Daniel J. Hymans

Administrator

10-01-88

A. ANNUAL RECEIPTS

<\$250K

\$1M-3.5M

\$250K-500K

\$3.5M-7M

\$500K-750K

\$7M-10M

\$750K-1M

>\$10M

B. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors)

C. NUMBER OF BEDS

D. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Dollar and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)

☐ YES

☐ NO

FOR NRC USE ONLY

TYPE OF FEE

FEE LOG

FEE CATEGORY

COMMENTS

AMOUNT RECEIVED

CHECK NUMBER

CONTROL NO. 8624 1

APPROVED BY

DATE

REF: NRC 313 ITEM 5 AND 6

<u>ITEM 5 - BYPRODUCT MATERIAL</u>	<u>AMOUNT</u>	<u>ITEM 6 - PURPOSE</u>
1) MATERIAL IN 35.100	AS NEEDED	MEDICAL USE
2) MATERIAL IN 35.200	AS NEEDED	MEDICAL USE

REF: NRC 313 - ITEM 8  
PERSONNEL TRAINING PROGRAM

We will establish and implement the model training program that was published in Appendix A to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 9.2  
CALIBRATION OF SURVEY METERS

We have developed a survey instrument calibration procedure for your review that is appended as ATT 9.2.

REF: NRC 313 ITEM 9.3  
PROCEDURE FOR CALIBRATING DOSE CALIBRATOR

We have developed a dose calibrator calibration procedure for your review that is appended as ATT 9.3.

REF: NRC 313 ITEM 9.4  
PERSONNEL MONITORING

We will establish and implement the model personnel external exposure monitoring program published in Appendix D to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 9.5  
TRANSPORTING OF IMAGING EQUIPMENT

NOT APPLICABLE

REF: NRC 313 ITEM 10.1  
RADIATION SAFETY COMMITTEE

We will establish and implement the model procedures for establishing and operating a Radiation Safety Committee that was published in Appendix F to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.2  
ALARA

We will establish and implement the model ALARA program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.



REF: NRC 313 ITEM 10.3  
LEAK TEST PROCEDURES

We have developed a leak test procedure for your review that is appended as ATT 10.3.

REF: NRC 313 ITEM 10.4  
SAFE USE OF RADIOACTIVE PHARMACEUTICALS

We will establish and implement the model safety rules published in Appendix I to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.5  
SPILL PROCEDURES

We will establish and implement the model spill procedures published in Appendix J to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.6  
ORDERING AND RECEIVING OF RADIOACTIVE MATERIALS

We will establish and implement the model guidance for ordering and receiving radioactive material that was published in Appendix K to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.7  
OPENING PACKAGES CONTAINING RADIOACTIVE MATERIALS

We will establish and implement the model procedure for opening packages that was published in Appendix L to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.8  
M.1 RECORDS OF UNIT DOSAGE USE

We will establish and implement the model procedure for a unit dosage record system that was published in Appendix M.1 to Regulatory Guide 10.8, Revision 2.

M.2 RECORDS OF MULTIDOSE VIAL USE

We will establish and implement the model procedure for a multidose vial record system that was published in Appendix M.2 to Regulatory Guide 10.8, Revision 2.

CONTROL NO. 8624 1

REF: NRC 313 ITEM 10.10  
MO-99 CONCENTRATION RECORDS

We will establish and implement the model procedure for measuring and recording molybdenum concentration that was published in Appendix M.3 to Regulatory Guide 10.8, Revision 2.

REF: NRC 313 ITEM 10.11  
IMPLANT SOURCE USE RECORDS

Not Applicable

REF: NRC 313 ITEM 10.12  
AREA SURVEY PROCEDURES

We will establish and implement the model procedure for area surveys that was published in Appendix N to Regulatory Guide 10.8, Revision 2.

CONTROL NO. 8624 1

REF: NRC 313 ITEM 10.13  
AIR CONCENTRATION CONTROL

WORKER DOSE FROM NOBLE GASES (Item 10.13.1)

Not Applicable

WORKER DOSE FROM AEROSOLS (Item 10.13.2)

We will collect spent aerosol in a shielded trap and, for reusable traps, monitor the trap effluent with an air contamination monitor that we will check regularly according to the manufacturer's instructions.

PUBLIC DOSE FROM AIRBORNE EFFLUENT (Item 10.13.3)

We will not directly vent spent aerosols and gases to the atmosphere and therefore no effluent estimation is necessary.

SPILLED GAS CLEARANCE TIME (Item 10.13.4)

Not Applicable

REF: NRC 313 ITEM 10.14  
RADIOPHARMACEUTICAL THERAPY

Not Applicable

REF: NRC 313 ITEM 10.15  
IMPLANT THERAPY

Not Applicable

REF: NRC 313 ITEM 11.1  
WASTE DISPOSAL

We will establish and implement the general guidance and model procedures for waste disposal that were published in Appendix R to Regulatory Guide 10.8, Revision 2.

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
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RADIATION SAFETY OFFICER

Thomas Winch, M.D.

Material included in 35.100

Material included in 35.200

For training and experience, please reference this hospital's current license.



ATT 7.1.2

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
Andrew Lucas, M.D.	Material included in 35.100 Material included in 35.200

For training and experience, please reference this hospital's current license.



ATT 7.1.3

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
Richard Kessler, M.D.	Material included in 35.100
	Material included in 35.200

For training and experience, please reference this hospital's current license.

ATT 7.1.4

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
David Enerson, M.D.	Material included in 35.100 Material included in 35.200

For training and experience, please reference this hospital's current license.

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
Robert Friedrich, M.D.	Material included in 35.100 Material included in 35.200

For training and experience, please reference this hospital's current license.



ATT 7.1.6

AUTHORIZED USERS

<u>NAME</u>	<u>AUTHORIZED USES</u>
J. K. Park, M.D.	Licensed material of the types, quantities, and forms specified in Sections 35.31(a) of 10 CFR 35 and 31.11(a) of 10 CFR 31 to be used in accordance with the provisions of paragraphs (a) and (c) of Section 35.31, 10 CFR 35 and paragraphs (a), (c), and (d) of Section 31.11, 10 CFR 31.

For training and experience, please reference this hospital's current license.

ATT 7.1.7

AUTHORIZED USERS

NAME	AUTHORIZED USES
Richard Veiga, M.D.	Licensed material of the types, quantities, and forms specified in Sections 35.31(a) of 10 CFR 35 and 31.11(a) of 10 CFR 31 to be used in accordance with the provisions of paragraphs (a) and (c) of Section 35.31, 10 CFR and paragraphs (a), (c), and (d) of Section 31.11, 10 CFR 31.

Verification of Dr. Veiga's training and experience are attached.

ATT B.1

WORKERS RECEIVING TRAINING AS STATED IN APPENDIX A:

Nuclear Medicine Personnel

Housekeeping Personnel

Maintenance Personnel, who are responsible for the off-duty hour receipt of radioactive materials.

Training will be in the form of lectures, demonstrations, slide presentations, and written instructions.

FACILITIES AND EQUIPMENTShielding Around Generator:

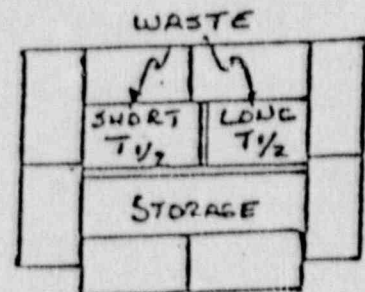
The generator is shielded on the rear by a wall of standard size lead bricks (each 2" thick X 4" wide X 8" long). This wall is three (3) bricks (12") high and two (2) bricks (16") long. Immediately adjoining both sides of this rear wall are side wall of lead bricks of the same dimensions as the rear wall. The front of the generator area is shielded by an upright Protective Lead Barrier 15" high X 15" wide X 1/2" thick, to prevent direct exposure to personnel eluting the generator. The generator area location on the hot lab work bench is shown on the facility sketch. A top view of this arrangement is shown below.

See (A) on attached sketch.

Storage and Waste Area Shielding:

The active storage/waste area is shielded on all four (4) sides by standard size lead bricks as described above for the generator area shielding, except that a front lead brick wall is substituted for the protective lead barrier. This storage area is located on the hot lab area work bench as shown on the facility sketch. This lead brick storage area will be divided by plywood or similar material into three (3) compartments as shown on the diagram below. We do not anticipate the use of many long-lived radionuclides and the short-lived waste compartment contents can be more frequently surveyed for disposal to avoid waste accumulation or the need for any other radioactive storage or waste areas. A top view of the storage area shielding is shown below:

See (B) on attached sketch.

Dose Preparation Area:

The dose preparation area on the hot lab area work bench as shown on the facility sketch, is shielded in the front by an upright Protective Lead Barrier (15" X 15" X 1/2" thick). Disposable gloves, remote handling tongs (4" to 8" long), survey meter, plastic backed absorbent pads and all other ancillary supplies mentioned in NRC Regulatory Guide 10.8, dated October 1980, will also be on hand in this hot lab area.

Equivalent shielding to maintain minimal exposure levels may be used.



Outside Wall

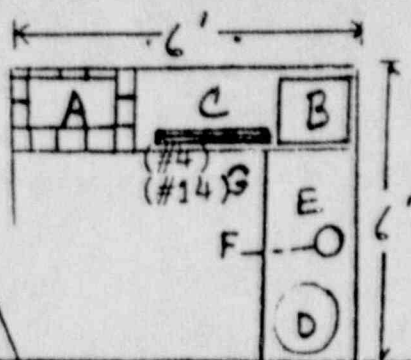
18'

Micro-dot

(#9)  
Console

Desk

Hallway



Camera

(#5) (#13)  
(#8)

- A. Generator (#1) & (#15)
- B. Radiation Storage (#6) (Refrigerator)
- C. Dose Prep. Shield (#2)
- D. Dose Calibrator (#3) & (#4)
- E. Preparation Tray
- F. Co-57 Flood Source
- G. Shielded Disposal receptacle (#7)

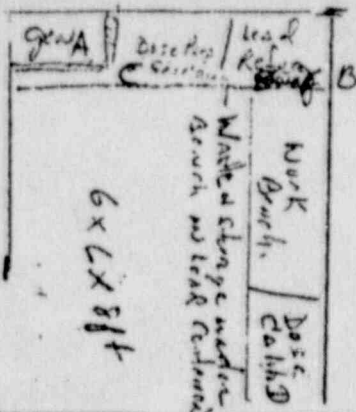
X-ray Lab

X-ray Procedure Room

15'

Riverview Hospital  
Wisconsin Rapids, Wisconsin  
Nuclear Medicine Department (March, 1980)

WALK  
THRU



DARK ROOM

WALK  
THRU

WALK  
THRU

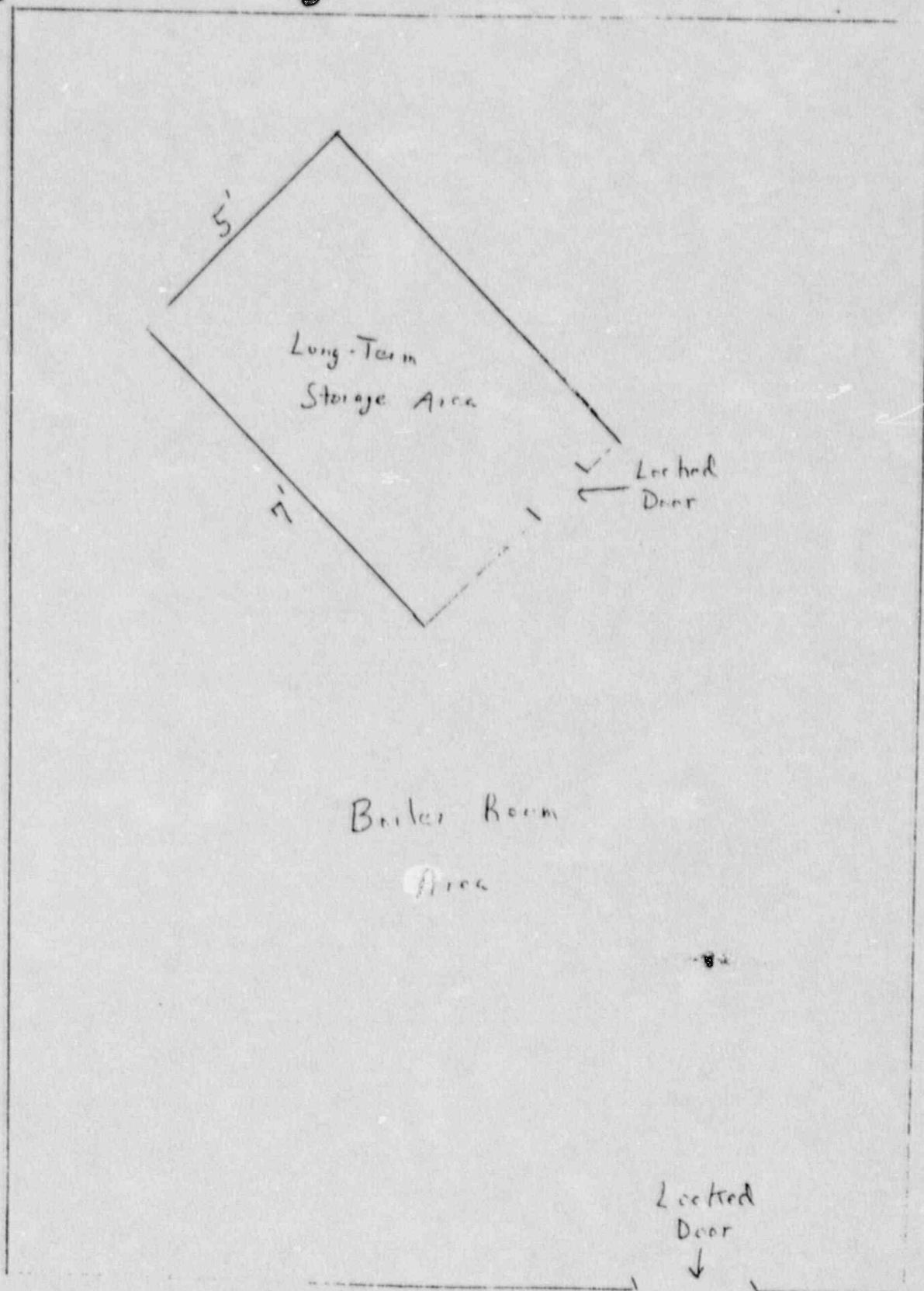
18 x 30 x 8 ft

Control

Control

X-Ray Procedure Rooms  
inside wall

# Diagram of Long-Term Storage Area



CONTROL NO. 86241



## CALIBRATION OF SURVEY METERS

Survey meters will be calibrated at least annually, and after repairs, by any firm that is approved by the NRC for such calibrations. Instruments will be calibrated on at least two (2) points on each scale range. For our calibration service we will use Stan A. Huber Consultants, Inc., of New Lenox, IL, whose radiation sources and procedures are on file with the NRC under License #12-17503-01, or another licensed calibration firm.

The licensee shall perform operational and constancy checks on survey instruments before each day's use to ensure proper functioning of the devices. For any infrequently used meters, these reference source operational checks shall be taken at least quarterly, per NRC Regulatory Guide 10.8, Revision 2, Appendix B, as well as after repairs and battery changes to assure constancy within  $\pm 20\%$  of expected readings.

PROCEDURE FOR CALIBRATING DOSE CALIBRATOR

We shall follow the calibration methods and frequencies for dose calibrators as defined in the NRC Regulatory Guide 10.8, Revision 2, Appendix C.

For the linearity test, we will test the dose calibrator over the range of its use between the highest dosage that will be administered to a patient and 10 uCi. If the worst deviation is more than + or - 10%, the dose calibrator should be repaired or adjusted. For the accuracy test, Stan A. Huber Consultants, Inc., of New Lenox, IL (NRC License 12-17503-01), or other licensed calibration firm, will use the following sources under the authority of their NRC license:

Model NES-356, 200 microcuries of Cs-137 (high energy)

Model NES-352, 1 millicurie of Co-57 (low energy)  
(or other NRC approved Co-57 calibration sources of greater millicurie activity)

Model NES-358, 250 microcuries of Ba-133 (medium energy)  
(the minimum activities used for dose calibrator accuracy checks are 100 uCi each for Cs-137 and Ba-133, and 1 mCi for Co-57.)

We use a NEN Model NES-356, Cs-137 standard, 100 - 300 uCi, or any approved similar standard for our day of use dose calibrator constancy checks. Records of all tests and checks will be maintained.

We request use of the "Calicheck" (Calcorp) system or "Lineator" (Atomic Products) system as an alternate method of performing dose calibrator quarterly linearity checks. The product certifications for these devices are on file with the NRC.

ATT 10.3

We confirm that sealed sources will be stored in their original lead shielded containers. Any readings above background would indicate the need for additional shielding.

Leak testing of sealed sources will be performed on a semi-annual frequency. We will use the leak test services of Stan A. Huber Consultants, Inc., New Lenox, IL (NRC License # 12-17503-01), using their Model LT-2 (or Model LT-3 if applicable) Leak Test Kit for sealed sources, or other firm specifically authorized by the U.S. Nuclear Regulatory Commission to perform these tests.



## INSTRUMENTATION

### SURVEY METER

One (1) Victoreen Model 498 Survey Meter  
Ranges: 0-1; 0-10; 0-100; 0-1000 mR/hr

### DOSE CALIBRATOR

One (1) Squibb (Capintec) Model CRC-6 Dose Calibrator

EXHIBIT 2,  
SUPPLEMENT A

SUPPLEMENT		U.S. NUCLEAR REGULATORY COMMISSION		
<b>TRAINING AND EXPERIENCE</b> <b>AUTHORIZED USER OR RADIATION SAFETY OFFICER</b>				
1. NAME OF PROPOSED AUTHORIZED USER OR RADIATION SAFETY OFFICER		2. FOR PHYSICIANS, STATE OR TERRITORY WHERE LICENSED		
Richard S. Veiga M.D.		Wisconsin		
3. CERTIFICATION				
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C		
American Board of Pathology	Anatomic and Clinical Pathology	May 1988		
4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES				
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	TYPE AND LENGTH OF TRAINING		
		CLOCK HOURS IN LECTURE OR LABORATORY	CLOCK HOURS OF SUPERVISED ON-THE-JOB EXPERIENCE	
a. RADIATION PHYSICS AND INSTRUMENTATION	n.a.			
b. RADIATION PROTECTION	n.a.			
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	n.a.			
d. RADIATION BIOLOGY	n.a.			
e. RADIOPHARMACEUTICAL CHEMISTRY	n.a.			
5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)				
ISOTOPE	mCi USED AT ONE TIME	LOCATION	CLOCK HOURS	TYPE OF USE
125I 59Fe 57Co 51Cr		St. Luke's Hosp. Milwaukee, WI.	Two months supervised instruction in clinical laboratory setting.	

EXHIBIT 3  
SUPPLEMENT B

SUPPLEMENT		U. S. NUCLEAR REGULATORY COMMISSION	
PRECEPTOR STATEMENT			
<i>Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.</i>			
<b>1. PROPOSED PHYSICIAN USER'S NAME AND ADDRESS</b>		<b>KEY TO COLUMN C</b>	
<b>FULL NAME</b> Richard S. Veiga M.D.		<b>PERSONAL PARTICIPATION SHOULD CONSIST OF:</b> 1-Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage. 2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data. 3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.	
<b>STREET ADDRESS</b> 2112 16 St. South			
<b>CITY</b> Wisconsin Rapids	<b>STATE</b> WI.		
<b>2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN</b>			
ISOTOPE <small>A</small>	CONDITIONS DIAGNOSED OR TREATED <small>B</small>	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION <small>C</small>	COMMENTS <small>(Additional information or comments may be submitted in duplicate on separate sheets.) D</small>
	Thyroid scan	0	(See following page)
	Thyroid uptake	0	
	Lung perfusion scan	0	
	Xenon ventilation study	0	
	Aerosol ventilation scan	0	
	Renal flow scan	0	
	Brain scan	0	
	Liver/spleen scan	0	
	Bone scan	0	
	Gastroesophageal study	0	
	LeVeen shunt study	0	
	Cystogram	0	
	Dacryocystogram	0	
	Cardiac perfusion scan.	0	
	Cardiac stress ventriculogram	0	
	Cardiac rest ventriculogram	0	
	Gallium scan	0	



## EXHIBIT 3 (Continued)

PROPOSED PHYSICIAN USER

Richard S. Veiga, M.D.

## PRECEPTOR STATEMENT (Continued)

## 2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES	0	Training restricted to supervised instruction in laboratory diagnostic and monitoring procedures including: blood volume studies, CEA, Cortisol determinations, CK-MB, Digitoxin and Digoxin measurements, Ferritin and Ferrokinetic studies, Folate and Vit. B <sub>12</sub> levels, In vivo crossmatch, serum pregnancy test, red cell mass, red cell survival, T3-RU, T <sub>4</sub> , T <sub>7</sub> Free Thyroxine Index, TSH.
P-32 (Colloid)	INTRACAVITARY TREATMENT	0	
I-131	TREATMENT OF THYROID CARCINOMA	0	
	TREATMENT OF HYPERTHYROIDISM	0	
Au-198	INTRACAVITARY TREATMENT	0	
Co-60 or Cs-137	INTERSTITIAL TREATMENT	0	
	INTRACAVITARY TREATMENT	0	
I-125 or Ir-192	INTERSTITIAL TREATMENT	0	
	TELETHERAPY TREATMENT	0	
Co-60 or Cs-137	TELETHERAPY TREATMENT	0	
Sr-90	TREATMENT OF EYE DISEASE	0	
	RADIOPHARMACEUTICAL PREPARATION	0	
Mo-99/ Tc-99m	GENERATOR	0	
Sr-90/ Y-90	GENERATOR	0	
Tc-99m	REAGENT KITS	0	
Other	(See comments.)		

## 3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

LOCATION

DATES

CLOCK HOURS OF EXPERIENCE

St. Luke's Hospital  
Milwaukee, WI.Rotations totaling two months  
as part of combined Pathology  
Residency; July 1983 to June 1987.4. THE TRAINING AND EXPERIENCE INDICATED ABOVE  
WAS OBTAINED UNDER THE SUPERVISION OF:

a. NAME OF SUPERVISOR

M. I. Malik, M.D. Program Director

b. NAME OF INSTITUTION

St. Luke's Hospital

c. MAILING ADDRESS

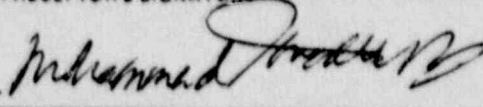
2900 W. Oklahoma Ave.

d. CITY

Milwaukee

## 5. MATERIALS LICENSE NUMBER(S)

## 6. PRECEPTOR'S SIGNATURE



## 7. PRECEPTOR'S NAME (Please type or print)

Mohammad I. Malik, M.D.

## 8. DATE

10/1/88

EXH-7

CONTROL NO. 86242