

NRC FORM 313
7-76
10 CFR 37.32, 33, 34
35 and 40

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY 1149
3150012
EXPIRES 5-87

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.

APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20545

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 MATERIALS SAFETY 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
NUCLEAR MATERIALS SAFETY 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
799 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
NUCLEAR MATERIALS SAFETY 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 23-13173-02

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

St. James Community Hospital
P. O. Box 3300
400 S. Clark St.
Butte, MT 59701

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

St. James Community Hospital
400 S. Clark
Butte, MT 59701

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION:

Eugene F. Hughes, M.D. RSO

TELEPHONE NUMBER

(406) 782-8361 Ext. 4700

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 and/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: _____ AMOUNT: \$ _____
ENCLOSED \$ _____

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 USC 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

Sister Loretto Marie Colwell Sister Loretto Marie Colwell, President

7-29-87

14. ANNUAL RECEIPTS

< \$250K	\$1M - 3.5M
\$250K - 500K	\$5M - 7M
\$500K - 750K	\$1M - 10M
\$750K - 1M	> \$10M

15. NUMBER OF EMPLOYEES (Total for entire facility, excluding outside contractors):

16. NUMBER OF BEDS:

17. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Total and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations prohibit 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: _____

APPROVED BY: _____

AMOUNT RECEIVED: _____ CHECK NUMBER: _____

8801250150 870806

REG4 LIC30

25-13173-02

PDR

DATE: _____

420135

<u>Item 5</u>	<u>Byproduct Material</u>	<u>Amount</u>
5.a	Material in subsection 31.11	As needed
5.b	Material in subsection 35.100	As needed
5.c	Material in subsection 35.200	As needed
5.d	Material in subsection 35.300	As needed
5.e	Material in subsection 35.400	2000 mCi

<u>Item 6</u>	<u>Purpose</u>
6.a	Invitro testing
6.b	Medical use
6.c	Medical use
6.d	Medical use
6.e	Medical use

<u>Item 7</u>	
7.1	Refer to ATT 7.1.1 through 7.1.8
7.2	Refer to ATT 7.2.1 (NRC license number 25-13173-02)
7.3	Radiation Safety Officer Eugene F. Hughes, M.D. Refer to ATT 7.1.4 (NRC license number 25-13173-02)

<u>Item 8</u>	
8.1	To follow Appendix A in Regulatory Guide 10.8 Revision 2
8.2	N/A

<u>Item 9</u>	
9.1	Refer to ATT 9.1.1
9.2	To follow Appendix B in Regulatory Guide 10.8 Revision 2
9.3	To follow Appendix C in Regulatory Guide 10.8 Revision 2
9.4	To follow Appendix D in Regulatory Guide 10.8 Revision 2
9.5	N/A
9.6	Refer to ATT 9.6.1

<u>Item 10</u>	
10.1	To follow Appendix F in Regulatory Guide 10.8 Revision 2
10.2	To follow Appendix G in Regulatory Guide 10.8 Revision 2
10.3	To follow Appendix H in Regulatory Guide 10.8 Revision 2
10.4	To follow Appendix I in Regulatory Guide 10.8 Revision 2
10.5	To follow Appendix J in Regulatory Guide 10.8 Revision 2
10.6	To follow Appendix K in Regulatory Guide 10.8 Revision 2
10.7	To follow Appendix L in Regulatory Guide 10.8 Revision 2
10.8	To follow Appendix M.1 in Regulatory Guide 10.8 Revision 2
10.9	To follow Appendix M.2 in Regulatory Guide 10.8 Revision 2
10.10	To follow Appendix M.3 in Regulatory Guide 10.8 Revision 2
10.11	To follow Appendix M.4 in Regulatory Guide 10.8 Revision 2
10.12	To follow Appendix N in Regulatory Guide 10.8 Revision 2
10.13	To follow Appendix O in Regulatory Guide 10.8 Revision 2
10.14	To follow Appendix P in Regulatory Guide 10.8 Revision 2
10.15	To follow Appendix Q in Regulatory Guide 10.8 Revision 2
10.16	N/A

<u>Item 11</u>	
11.1	To follow Appendix R in Regulatory Guide 10.8 Revision 2
11.2	Refer to Item 11.1

ATT 7.1.1

Dennis O. Wright, M.D.

Proposed Use: Items 5.a, 5.b, 5.c, 5.d

ATT 7.1.2

Alan R. Belknap, M.D.

Proposed Uses: Items 5.1, 5.b, 5.c, 5.d

ATT 7.1.3

J. Michael Driscoll, M.D.

Proposed Uses: Items 5.a, 5.b, 5.c, 5.d

ATT 7.1.4

E. F. Hughes, Jr., M.D.

Proposed Uses: Item 5.e

ATT 7.1.5

Raymond D. Grondal, M.D.

Proposed Uses: Items 5.a, 5.b, 5.c

ATT 7.1.6

David A. Repola, M.D.

Proposed Uses: Items 5.a

ATT 7.1.7

Robert Krause, M.D.

Proposed Uses: Item 5.a

ATT 7.1.8

Neil F. Thomas, M.D.

Proposed Uses: Item 5.e

MATERIALS LICENSE
SUPPLEMENTARY SHEETLicense number
25-13173-02
Docket or Reference number
030-12143

Amendment No. 18

9. (continued)

- D. Any therapeutic procedure listed in Group V of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.
- E. Any procedure listed in Group VI of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations. Instrument calibration.
- F. In vitro studies.
- G. Blood flow or pulmonary function studies.

CONDITIONS

10. Licensed material shall be used only at St. James Community Hospital, Inc., 400 South Clark Street, Butte, Montana.
11. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individuals for the materials and uses indicated:

Dennis O. Wright, M.D.

Groups I, II, and III

Xenon-133

In vitro studiesIodine-131 as iodide for treatment of
thyroid carcinoma, hyperthyroidism,
and cardiac dysfunction

Alan R. Belknap, M.D.

Groups I, II, III, IV, and V

Xenon-133

In vitro studies

J. Michael Driscoll, M.D.

Groups I, II, III, IV, and V

In vitro studies

Xenon-133

E. F. Hughes, Jr., M.D.

Group VI

Colloidal phosphorus-32 for
intracavitary treatment of malignant
effusions

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

25-13173-02

Docket or Reference number

030-12143

Amendment No. 18

11. (continued)

Raymond D. Grondahl, M.D.

Groups I, II, and III
In vitro studies
Xenon-133

David A. Repola, 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

Robert Krause, M.D.

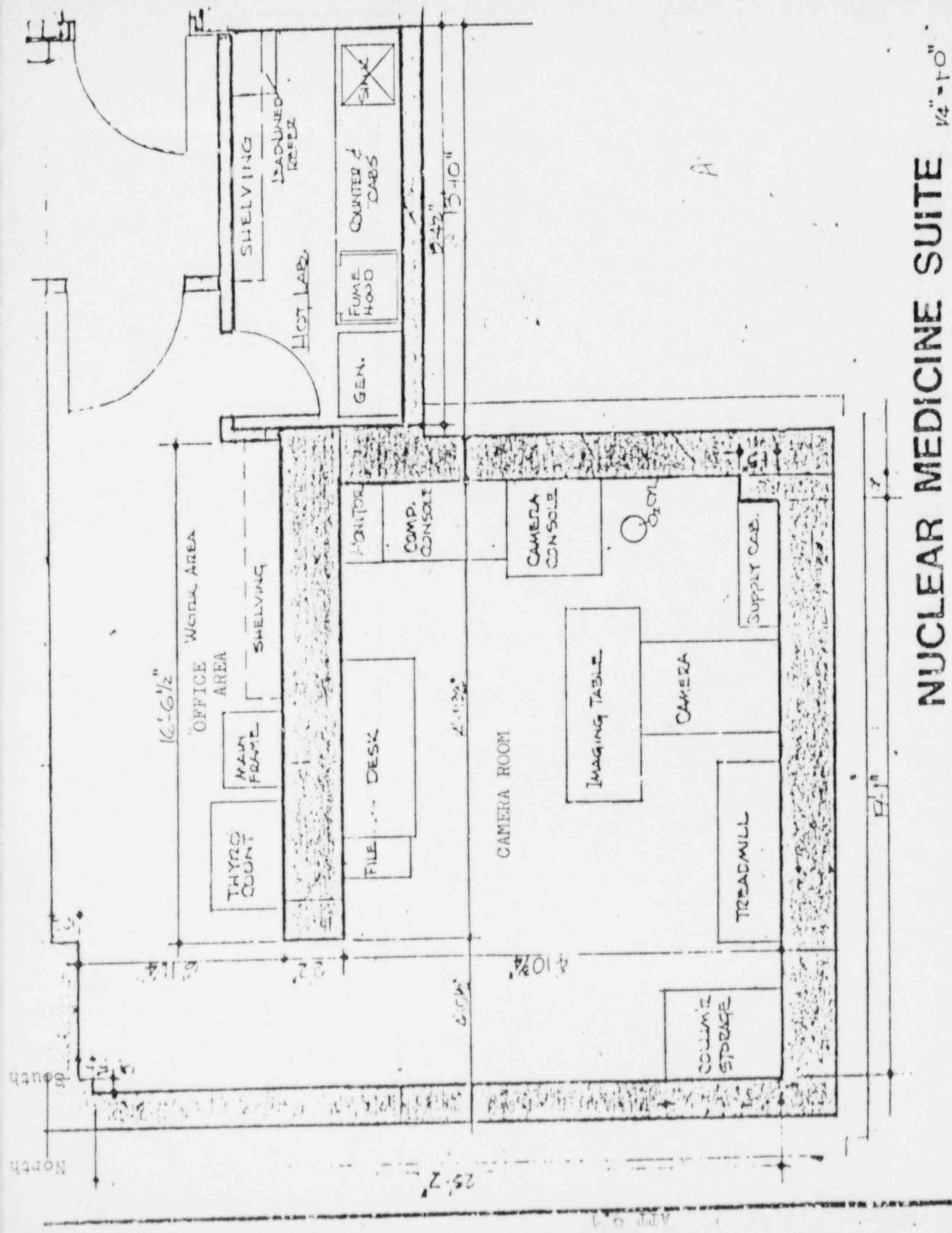
Licensed material of the types, quantities, and forms specified in Sections 35.31(a) of 10 CFR 35 and 31.11(a) of 10 CFR 31 to be used in accordance with the provisions of paragraphs (a) and (c) of Section 35.31, 10 CFR 35 and paragraphs (a), (c), and (d), of Section 31.11, 10 CFR 31

Neil F. Thomas, M.D.

Group VI

12. For a period not to exceed 60 days in any calendar year, a visiting physician is authorized to use licensed material for human use under the terms of this license, provided the visiting physician:

- A. Has the prior written permission of the hospital's administrator and Radiation Safety Committee, and
- B. Is specifically named as a user on a Nuclear Regulatory Commission license authorizing human use, and



NUCLEAR MEDICINE SUITE

1/4" = 1'-0"

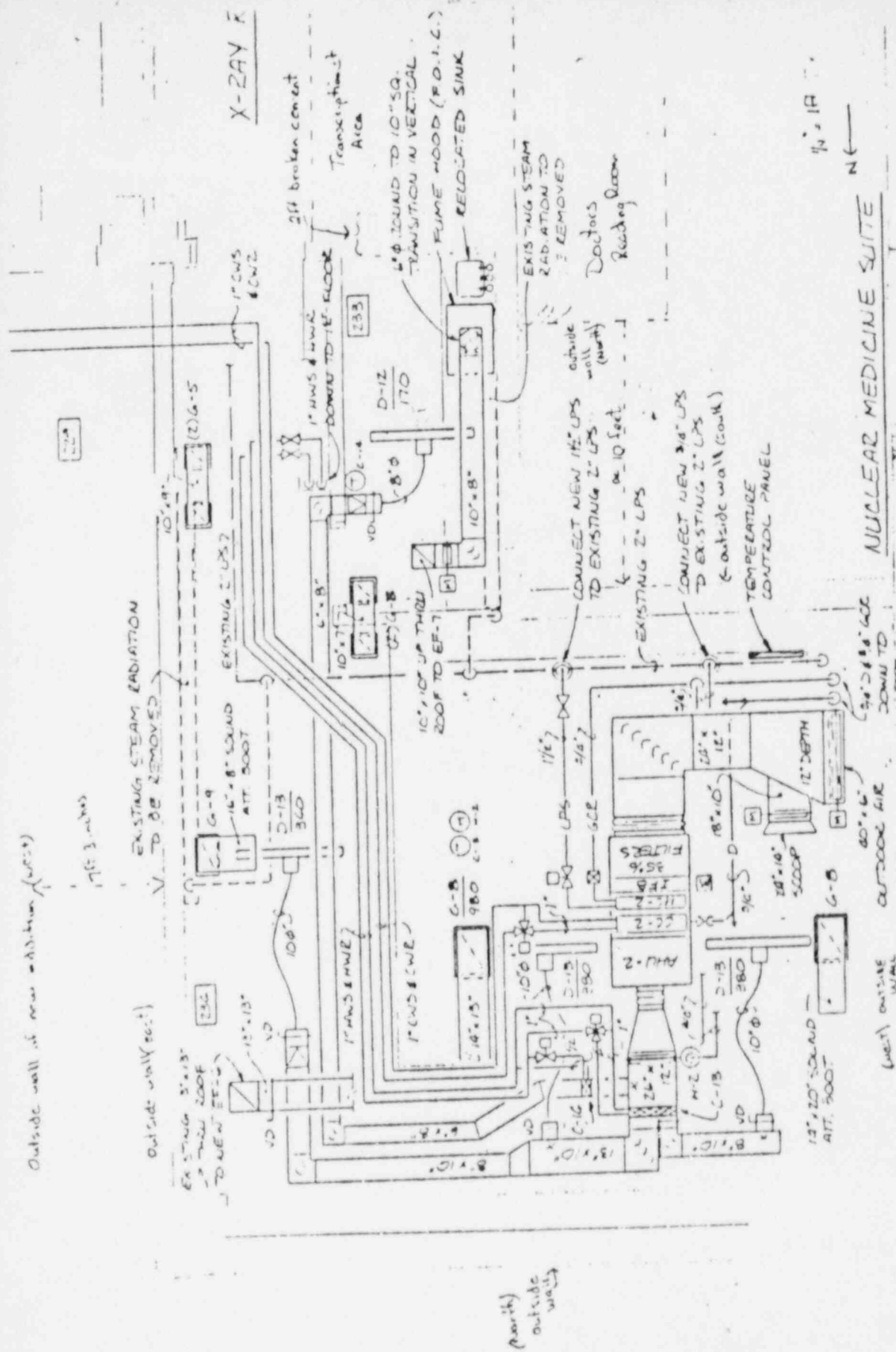
Supporting documentation for Xenon-133 concentration in the proposed area of the new Nuclear Medicine Department.

Air Concentration of Xenon-133 in restricted areas.
200 mCi's maximum / week: 25% leakage rate assumed

$$\frac{10 \text{ mCi}}{\text{pt}} \times \frac{15 \text{ pts}}{\text{wk}} \times \frac{1 \times 10^3 \text{ uCi}}{\text{mCi}} = 1.5 \times 10^5 \text{ uCi/wk}$$

$$\frac{1.5 \times 10^5 \text{ uCi/wk} \times 0.25}{1 \times 10^{-5} \text{ uCi/ml}} = \frac{4.0 \times 10^4 \text{ uCi/wk}}{1 \times 10^{-5} \text{ uCi/ml}} = \frac{4.0 \times 10^9 \text{ ml/wk}}{40 \text{ hr/wk}} = \frac{1 \text{ CFM}}{1.7 \times 10^6 \text{ ml/hr}} = 59.0 \text{ CFM}$$

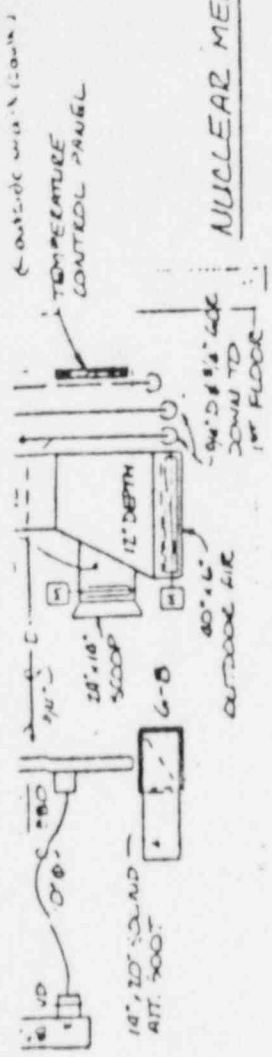
Required minimum ventilation will be 59 CFM



NUCLEAR MEDICINE SUITE

11

↓
2



NUCLEAR MEDICINE SUITE.
40° 11' 0"



SECOND FLOOR
10-1-91

NOTES:

1. REMOVE EXISTING DUCT VENTILATOR IN VICINITY OF NEW 40"x6" OUTDOOR AIR DUCT.
2. CONNECT NEW 40"x6" OUTDOOR AIR DUCT TO EXISTING 40"x6" DUCT AT FLOOR. PROVIDE INSULATED BLANK-OFF FOR UNUSED PORTION OF EXISTING DUCT.
3. REMOVE EXISTING UPS BRANCH UNIES TO STEAM RADIATION BEING REMOVED. CAP BRANCHES AT EXISTING 2" MAIN.
4. PROVIDE DOMESTIC HOT AND COLD WATER, WASTE AND VENT CONNECTIONS TO EXISTING SINK BEING RELOCATED TO ROOM #133. EXTEND WATER UNIES, INCLUDING HOT WATER REGR., FROM THE 2ND FLOOR OF THE ONCOLOGY ADDITION. ROUTE VENT THRU ROOF ABOVE ROOM #133. ROUTE WASTE LINE AS SHOWN ON THIS SHEET.
5. PROVIDE FIRE SPROKERS AS F-RAY RECORDS, ROOM #132. EXTEND SPRINKLER LINE FROM THE 2ND FLOOR OF THE ONCOLOGY ADDITION.
6. PROVIDE OXYGEN ZONE VALVE IN LINE TO THE ONCOLOGY ADDITION. LOCATE AS SHOWN IN ROOM #131A.
7. RELOCATE EXISTING T-STAYS AS REQUIRED IN 1ST FLOOR NORTH ROOMS.
8. HUMIDIFIER #2 SHALL HAVE A CAPACITY OF 25 LBS./HR. AT AN INLET PRESSURE OF 8 PSIG.