70:(115)

January 17, 1980

Mr. Michael A. Lamastra
Material Licensing Branch
Division of Fuel Cycle and
Material Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJ: Material License No. 37-16034-01 - Control No. 98444

Dear Mr. Lamastra:

In reply to your letter dated November 8, 1979, we are submitting the additional information that you require as follows:

1. a. Our laboratory utilizes nonvolatile form of iodine-131 gelatin capsules containing 15-100 microcuries iodine-131 for diagnostic procedures and iodine-125 in form of radioimmunoassay kits exclusively.

According to the Regulatory Guide #8.20 no bioassay is necessary for activity levels of iodine-125 or iodine-131 in form and quantities as stated above.

b. We do not perform protein iodinations or tritium labeling experiments.

2. We have 2 millicuries cobalt-57 on hand, and are performing daily consistency checks.

Orders have been placed for 3 millicuries cobalt-57 source for the daily check and .250 microcuries 133 Ba source for annual checks.

3. a. The Medical Center Director has designated the Assistant Medical Center Director to serve as a permanent member of the Medical Isotopes Committee.

b. A Nursing Coordinator has been appointed as a permanent member of the Medical Isotopes Committee.

c. Frequency of the Medical Isotopes Committee meeting has been modified to one meeting in each calendar quarter.

BPP

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Mr. Michael A. Lamastra

4. Enclosed are copies of the instructions provided to our security personnel for receiving packages containing radioactive materials during off-duty hours.

5. a. Technical personnel will be instructed in the terms and conditions of our license at least once annually.

b. Nontechnical personnel will have annual refresher training.

6. a. We will only use iodine-131 for therapy in form of therapeutic capsules containing 1.0-30.0 millicuries of iodine-131. We will not use oral solutions of liquid iodine-131.

During the past year and a half we treated only two patients for hyperthyroidism.

7. a. Xenon-133 is stored in hot lab behind lead blocks and lead glass shield. Expired and used vials are stored in a lead-shielded safe. Lead thickness of the safe wall equals 2 cm. Diagram indicating the availability of shielding material and the proximity to unrestricted areas is included.

b. Diagram of location of supply and exhaust vents with measured airflow rates for each vent and the fraction of air that is recirculated is included.

Location of vents: Camera Room, Hot Lab, Restroom, Dark Room

c. Emergency procedures in case of accidental release of xenon-133 consists of temporary evacuation of the area.

d. Xenon-133 gas after use is disposed by release to the atmosphere through an air exhaust system. Included are calculations of xenon-133 air concentration for unrestricted areas.

Sincerely yours,

A. PAUL MORRIS
Medical Center Director

115/APOLIZIO:smc HRHW 00

UNITED STATES GOVERNMENT

Memorandum

DATE: January 15, 1980

TO: Chief, Nuclear Medicine Service (115)

FROM: Chief of Staff (11)

SUBJ: Radionuclide Committee

1. In reference to your memorandum of January 11, 1980, the Medical Center Director has recommended that the Assistant Director be designated as a permanent member to the committee representing the Administrative Staff. Your memorandum to the Chief, Nursing Service, has been forwarded to the Nursing office. You should be receiving notification of Nursing's appointed representative under separate cover.

Richard H. Wellman

RICHARD H. WELLMAN, M.D.

CC: Medical Center Director
Thru: 001

January 11, 1980

Hospital Director (00)
THRU: Chief of Staff (11)

Chief, Nuclear Medicine Service (115)

Radionuclide Committee

Regarding the attached copy of letter from the Nuclear Regulatory Commission dated November 8, 1979, Page 2, Item 3a, b, c:

3a. Please appoint a permanent member of the administrative staff to the Radionuclide Committee.

3b. Please see attached copy of memorandum to Chief, Nursing Service requesting her to appoint a representative to the Radionuclide Committee.

3c. This memorandum informs you that Radionuclide Committee meetings will be held quarterly instead of as necessary, but not less than once a calendar year.

A new Medical Center Memorandum 11-50 "RADIONUCLIDE COMMITTEE" will be issued when we receive the above information.

ANNA POLIZIO, M.D.

UNITED STATES GOVERNMENT

Memorandum

DATE: January 16, 1980

TO: Chief, Nuclear Medicine Service (115)
THRU: Chief of Staff ~~(11)~~ RC

FROM: Chief, Nursing Service (118)

SUBJ: Radionuclide Committee

1. Thank you for inviting us to participate on the Radionuclide Committee. Margaret King, RN, Coordinator 2nd Floor, will serve as our representative. Her telephone extension is 296 and her pager number is 5122.

Mary H. Havrilla

MARY H. HAVRILLA, R.N.

cc: ACNS
M. King

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January 11, 1980

Chief, Nursing Service (118)
THRU: Chief of Staff (11)

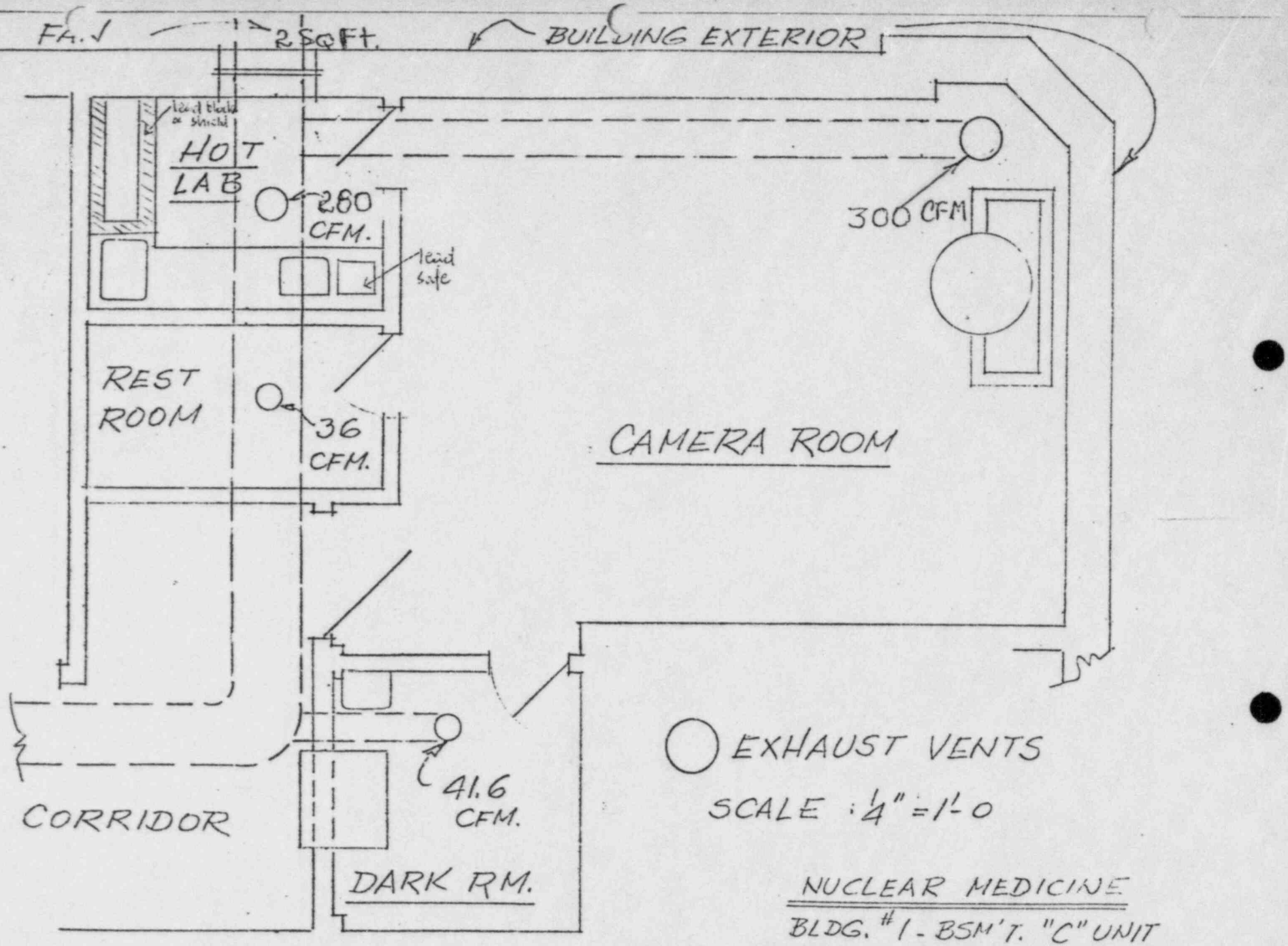
Chief, Nuclear Medicine Service (115)

Radionuclide Committee

Nuclear Regulatory Commission regulations require a representative of the Nursing Service to serve as a member on the Radionuclide Committee. Please appoint a member of your staff and notify us of your designation.

Meetings will be held quarterly and the member will be notified prior.

ANNA POLIZIO, M.D.



NUCLEAR MEDICINE

BLDG. # 1 - BSM'T. "C" UNIT

VA. HOSP. BUTLER, PA

IV. CALCULATIONS OF XENON^{133} AIR CONCENTRATIONS FOR UNRESTRICTED AREA:

A = Maximum microcuries per year

V = Air flow volume

C = Average concentration of Xenon^{133} at point of release from the exhaust system to the outdoors

$$A = \frac{10 \text{ patients}}{\text{weeks}} \times \frac{20 \text{ mCi}}{\text{patient}} \times \frac{10^3 \mu\text{Ci}}{\text{mCi}} \times \frac{52 \text{ weeks}}{\text{year}}$$

$$A = 10.4 \times 10^6 \mu\text{Ci/year}$$

$$V = 300 \frac{\text{ft}}{\text{min}} \times 2 \text{ ft}^2 \times 3.48\times10^9 \frac{\text{ml/year}}{\text{ft}^3\text{/min}}$$

$$V = 20.4\times10^{12} \text{ ml/year}$$

$$C = \frac{2\times10^5 \mu\text{Ci/year}}{20.4\times10^{12} \text{ ml/year}} = 0.1\times10^{-7} \mu\text{Ci/ml}$$

Average concentration for unrestricted area equals $0.1\times10^{-7} \mu$Ci/ml

ITEM 21
JAN. 14, 1980