

NOV 30 1983

MEDICAL CENTER

NORTHAMPTON, MA 01060

**Veterans
Administration**

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M-5
Central #
1518/565

In Reply Refer To: 631/114

U. S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD. 20910

ATT: Ms. C. McDonald
Mail Stop 396 SS

Dear Ms. McDonald:

Reference is made to the November 15, 1983 phone conversation between yourself and our consulting physicist regarding two deficiencies in the Application For Materials License - Medical (NRC-313M) submitted July 14, 1983 by this facility.

In response thereto we submit the following for your consideration:

1. Radiation survey instrument calibration

The nuclear medicine program will be almost entirely oriented in use of ^{99m}Tc . Accordingly the instrument will be calibrated against a measured amount of ^{99m}Tc using the exposure rate (stated in AAPM Monograph No. 1 by Kereiakes and Corey) of $0.72 \text{ R/cm}^2 \text{ mCi}^{-1} \text{ hr}^{-1}$. The measured amount of ^{99m}Tc will be determined in a dose calibrator which will have been confirmed as accurate against a ^{57}Co radiation standard traceable to NBS. The volume of ^{99m}Tc used will be small to allow its use as a point source. By varying the distances from the source, varying radiation exposure rates will be attained as noted in the Inverse Square Law:

$$R_2 = \frac{D_1^2}{D_2^2} \times R_1$$

It is noted that one 500 mCi source of ^{99m}Tc will produce an exposure dose rate of 36 mR/hr. at 100 cm. from the source, sufficient to allow calibration of the survey instrument on all ranges.

2. Staff orientation

In addition to information provided in the application, item #12, Personnel Training Program, the following is supplementary thereto:

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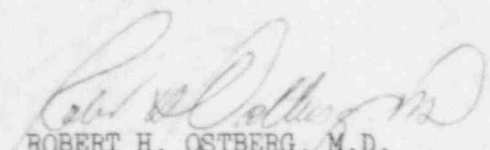
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All personnel who work with radioactive materials will be properly instructed before assuming their duties during annual refresher training and whenever there is a significant change in duties, regulations or the terms of the license. Furthermore, instruction as required by 10CFR 19 will be provided and will include: all terms of the license pertinent to radiation safety, areas where radioactive material is used or stored, potential hazards associated with radioactive material, appropriate radiological safety procedures, pertinent NRC rules and regulations, the obligation to report unsafe conditions to the radiation safety officer, appropriate response to emergencies, the right to be informed of their radiation exposure, the location where copy of the NRC license is posted as well as other pertinent documentation as required by 10CFR Part 19.

It would be especially appreciated if you would phone me directly if further information is required. Your cooperation is very much appreciated.

Truly yours,



ROBERT H. OSTBERG, M.D.
Chief, Radiology Service



MICHAEL J. KANE
Medical Center Director

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ML10

CONVERSATION RECORD

TIME

9:00a.m.

DATE

11/16/83

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☒ INCOMING

☐ OUTGOING

ROUTING

NAME/SYMBOL INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

ORGANIZATION (Office, dept., bureau, etc.)

TELEPHONE NO.

SUBJECT

SUMMARY

Mr. Rosenbaum called representing V A Northampton, MA. He had been informed by Helen M. (VA Central) that the application he prepared was def. in two items.

1. Need detail procedures for survey meter calibration.
2. No formal training program pursuant to 10CFR Part 19.

Mr. Rosenbaum stated that he would send the replies to these defys. as soon as possible.

ACTION REQUIRED

Receive Receive requested info.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

ACTION TAKEN

"OFFICIAL RECORD COPY" ML10

SIGNATURE

TITLE

DATE