

Department of
Veterans Affairs

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In Reply Refer to: 554/115

Ms. M. Linda McLean
U.S.N.R.C. Region IV
Nuclear Materials Inspection Section
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Ref: 330-01234
file: 05-01401-02

Dear Ms. McLean,

I hope you don't mind my taking the opportunity to add some information concerning two "apparent violations" identified in your recent inspection visit here. I feel it could save all concerned some time if I provide this information in advance of a letter from your office.

A. Concerning the apparent violation identified in the exit briefing as 10 CFR 20.1301 (a) (2) referring to the dose in the hallway outside of an iodine therapy patient's room. I would like to point out the following:

1. The door to the room is about 90 feet from the nursing station and in view of the nursing station. During the day and evening shift the station is continuously manned. There are two nurses assigned to that hallway during day and evening shifts. The hall has fourteen beds, one of which must be empty due to the nature of the layout of the room used for iodine therapy. During night shift, there are three nurses assigned to two halls with an aggregate of 30 beds, one of which must be empty as mentioned above. The nursing station is unmanned during the night shift. No visitors are allowed during night shift and a patient or visitor would be much more apparent than during the day and evening shifts.

2. Appendix P of Regulatory Guide 10.8, Revision 2, paragraph 8 states "Mark a visitor's 'safe line' on the floor with tape as far from the patient as possible." Attachments 17 and 18 of that same guide both reference a visitor's safe line. Saying "...as far as possible from the patient." might imply that the line is within the patient's room but there is no explicit discussion of where a safeline may be used. If a line is acceptable to safeguard a visitor inside of a room where they are not visible why is it not acceptable outside of a room where the visitor would be visible? While a room may be considered a "restricted area" within the meaning of 10 CFR 20 then the Regulatory Guide endorses allowing a member of the general public to enter such an area unmonitored, while our practice does not.

3. It is our contention that in taping the area in the hallway where the exposure rate exceeded 2 mR/hr we were sufficiently restricting the area given that it is observable from the nursing station during the two shifts in which visitors are allowed and there are nursing staff almost constantly in the hallway and the nursing staff was alerted that visitors should remain outside of the restricted area, past the visitor's "safe line". It is extremely unlikely that a visitor or patient could stand within the "restricted area" for a full hour and not be observed and asked to leave.

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B. Concerning the apparent violation identified in your exit briefing as of 10 CFR 20.1502 for failing to "monitor" our Nuclear Medicine Student.

"Each licensee shall monitor exposures to radiation and radioactive material at levels sufficient to demonstrate compliance with the occupational dose limits of this part. As a minimum- (a) Each licensee shall monitor occupational exposure to radiation and shall supply and require the use of individual monitoring devices by- (1) Adults likely to receive, in one year from sources external to the body a dose in excess of 10 percent of the limits in 10 CFR 20.1201(a)..."

a. We have monitored within the meaning defined in 10 CFR 20.1003 the exposure of our Nuclear Medicine Student. We require the use of dosimetry for our student in a published policy we do not however supply the monitoring device. However it is our contention that the student is not likely to receive 10% of an occupational exposure limit for the following reason, our student is present three days a week or 60% of the time.

b. The whole body exposure for one year of our senior Nuclear Medicine Technologist has been 400 and 410 mrem for 1993 and 1992 respectively. Average shallow and extremity doses were 420 and 2535 mrem respectively. Only the whole body dose approaches 10% of a limit in 20.1201(a). Sixty percent of the average of 405 mrem would be 243.

c. Our junior Nuclear Medicine Technologist has an aggregate of seven months of reported exposure and his whole body exposure extrapolated to a full year from that would be 429 mrem. His shallow and extremity doses, likewise extrapolated would be 429 mrem and 1937 mrem. Sixty percent of the whole body exposure would be 257 mrem.


d. Our contract, part time Nuclear Medicine Technologist works 3 days a week or 60% time similarly to our student and for the full year 1993 her exposures were; deep- 300 mrem, shallow- 300 mrem, and extremity- 1130 mrem.

e. The exposure records for the Student in question, which I had available at the time of the inspection, indicate that for a six month period she had one 10 mrem whole body exposure from her job and for one full quarter she had 10 mrem deep and shallow whole body exposures and 430 mrem extremity exposures from her training at our facility.

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f. Estimating the student's probable exposure, from full time Technologists would yield a figure of 240 to 260 mrem per year and using the part time contract Technologist would yield a slightly higher 300 mrem. The actual exposure reported thus far has been well below these levels as might be expected since she is a student and can be expected to start by observing. Given the actual exposure of our Nuclear Medicine Technologist staff and the actual exposure of our student we maintain that she is not required to have dosimetry since she is not likely to receive 10% of any occupational exposure limit.

Sincerely,


Peter G. Vernig
Radiation Safety Officer