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July 20, 1985

Bruce S. Mallett, PhD  
Materials Licensing Section  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Control Number 78245

Dear Dr. Mallett:

In response to your letter of May 10, 1985 the following information is submitted:

1. Concerning the amendment for the new door into the teletherapy room: Readings were again taken at the entrance of the door with the door open. The field size used was 15 cm wide by 20 cm long. This is probably about the largest field size which will be used for treating patients on the cart with the beam pointed toward the south wall. The readings at the control area was 0.2 mR. In the open door way the reading was 15.8 mR per hour. There was no phantom in the beam for these or the previous measurements.

It is not felt that this level is high enough to constitute a problem in terms of 10 CFR 20.105 since the treatments will not be longer than 1.5 minutes per field with two field per day. There should not be more than one patient treated in this manner at any one time. The reading outside the door if no shielding were present would be 15.8 mR per hour divided by 3 minutes equals 0.8 mR. With the 3 mm Pb shielding in the replacement door and the patient in the beam this level will be even less, in the order of one half or more. It is not a routine procedure to treat patients on a cart, only patients who cannot be moved to the table will be treated in this manner. There are probably less than 10 patients treated in this manner per year.

The repair of the door will take place after the completion of treatment. It is not anticipated that it will be necessary to treat without the new or the old treatment door in place. The interlock should be working whenever treatment are conducted.

The beam is pointed at the north wall instead of the south wall when the beam is directed 270 degrees.

If it is felt that these levels are too high by the NRC, then other arrangements will have to be made for the support of the door and modification of the frame. After the completion of the new door installation a report will be forwarded to Region III of the NRC with the levels outside the door.

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2. Concerning the renewal application:

The hospital administration has granted the necessary authority to the Radiation Safety Officer to act in his calling. In the event of his unavailability the duties of the Radiation Safety Officer will be carried out by Drs. Paudem P. Paudel or James E. Turner. Dr. Broadbent's schedule is on file with therapy personnel as well as his page number. In cases where he is needed at the hospital he can generally be there within one half to one hour.

The beam stops are unchanged from previous applications. The viewing system is also unchanged.

The makeup of the radiation safety committee is as specified in Section 35.11(b) of 10 CFR Part 35.

If there are further questions please contact us. Thank you for your time and effort.

Respectfully,

*M. V. Broadbent PhD*  
M. V. Broadbent, PhD, MACR