

MAR 13 1987

License No. 06-09522-02  
Docket No. 030-00118  
Control No. 106571

Greenwich Hospital Assoc.  
ATTN: Ralph Sgambato  
Perryridge Road  
Greenwich, Connecticut 06830

Gentlemen:

This is in reference to your request in a letter dated December 6, 1986 to amend License No. 06-09522-02. In order to continue our review, we need the following additional information:

- 1) Please provide your data for timer accuracy determination. We note your formula has omitted the number of irradiations during the cumulative irradiation (n) in the denominator. If your intention is for n to be equal to 1 then your procedure may not have sufficient sensitivity. The ANSI standard N449-1-1978, 4.14.1 recommends  $t_1$  and  $t_2$  to be the same, however, the number of irradiations for the cumulative irradiation should be at least 2. Please clarify.
- 2) Although it now appears that dose rates in your unrestricted area designated as (U) are below the 2 mR in any one hour limit, please note the following paragraph from the Guide for the Preparation of Applications for Licenses for Medical Teletherapy Programs page 22.

Unrestricted Areas: A treatment room should be designed so that the levels of radiation in any unrestricted area (as defined in paragraph 20.3(a)(17) of 10 CFR Part 20) adjacent to the treatment room meet the requirements of paragraph 20.105(b). This paragraph requires that radiation levels in unrestricted areas be such that a person in the area will receive a radiation dose exceeding neither 2 millirems in any 1 hour nor 100 millirems in any 7 consecutive days if the person were continuously present in the area. Conditions 15 and 18.A(ii)(b) of the teletherapy license in Exhibit B relate to this point.

Many applicants and licensees have thought that, because paragraphs 20.105 (b)(1) and (b)(2) are separated by the word "or," they could choose to show compliance either by showing less than 2 millirems in any 1 hour or by showing less than 100 millirems in any 7 consecutive days. However, the regulation does not permit this choice. The requirements of the regulation have been compared to a little box (i.e., less than 2 millirems in any 1 hour) inside a big box (i.e., less than 100 millirems in any 7 consecutive days). You must first show compliance with the less-than-2-millirems-in-any-1-hour requirement and then count up the hours and show

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compliance with the less-than-100-millirems-in-any-7-consecutive-days requirement. Your understanding of the use of "or" in this part of the regulations does not agree with our interpretation.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 106571.

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

Sincerely,

Original Signed By:  
Thomas K. Thompson

John E. Glenn, Ph.D., Chief  
Nuclear Materials Safety Section B  
Division of Radiation Safety  
and Safeguards

Enclosure: Guide for Preparation of Applications for Licenses for  
Medical Teletherapy Programs

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