13 FEB 1987

License No. 06-13905-01
Docket No. 030-01300
Control No. 120016

Griffin Hospital
ATTN: Robert C. Lange, Ph.D.
Physicist
130 Division Street
Derby, Connecticut 06418

Gentlemen:

This is in reference to your application dated December 30, 1986 to renew License No. 06-13905-01. In order to continue our review, we need the following additional information:

1. You have requested 100 millicuries of Group VI materials in Item 6.a. of your application. Please clarify. Supporting documentation for Group VI materials as described in Item 20, page 10.8-11 of the enclosed guide is required for any Group VI authorization. Please provide the required procedures and descriptions.

2. Please confirm that your training program, outlined in Item 12 of your application, for ancillary personnel and radiation workers includes instruction as specified in 10 CFR 19.12 (enclosed).

3. Describe your procedures for ordering radioactive materials, for receipt of materials during off-duty hours, and for notification of responsible persons upon receipt of radioactive materials. These procedures should be adequate to ensure that possession limits are not exceeded, that radioactive materials are secured against unauthorized removal at all times, and that radiation levels in unrestricted areas do not exceed the limits specified in Section 20.105 of 10 CFR Part 20.

4 Please submit the written instructions that you will provide to personnel who receive shipments of radioactive materials during hours when the Nuclear Medicine is closed. Your instructions should be at least equivalent to those specified in Appendix E of Regulatory Guide 10.8.

5. Thyroid uptake can occur by breathing volatile iodine which is released when the cap is first removed from vials containing therapeutic liquid iodine-131 or from surface contamination on iodine-131 capsules. Personnel should be instructed to wear gloves and to open the vials in a fume hood or to take alternative precautionary measures.

   A bioassay program should be established for personnel who handle therapeutic liquid or encapsulated iodine-131. As a minimum, thyroid counts should be obtained approximately twenty-four (24) hours after exposure. Refer to the enclosed bioassay guide.

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Submit the precautionary measures and the bioassay procedures that you will follow.

6. Item 21 of your application describes procedures and precautions for the use of xenon-133. This information is not complete.

   a. Please submit a modified facility diagram that shows the location and the measured airflow rate of each air exhaust vent and each air supply vent in the areas where xenon-133 is used or stored.

   b. State whether or not any fraction of the air exhausted from your department is recirculated to the department or to other areas of the hospital. If so, you must take this recirculated fraction into account in your xenon-133 calculations.

   c. Describe your action level for determining when saturation occurs and the charcoal filter must be replaced.

   d. Saturated charcoal cartridges from the xenon trap may be a source of xenon room air contamination. These cartridges should be capped if possible and/or sealed in a polyethylene bag before storing for disposal. Please describe the precautionary measures that you will observe.

   e. Please submit your calculations of estimated concentrations of xenon-133 in your restricted areas. Section 5 of Appendix M (enclosed) includes a sample calculation.

   f. Please submit your calculations of estimated concentrations of xenon-133 in effluent to the unrestricted area. Section 6 of Appendix M (enclosed) includes a sample calculation.

   g. Your emergency procedures in case of an accidental spillage of xenon-133 include increasing the ventilation and evacuating the area. Please describe your methods for increasing the ventilation and the criteria you will use in determining evacuation time.

7. Your license application did not include a description of your ALARA program. If you have chosen to adopt the model ALARA program described in Appendix O of Regulatory Guide 10.8 (Rev. 1) (enclosed), you may simply fill in the blanks on the first and last pages of the program, have a representative of your management sign the program on the last page, and submit the signed model ALARA program with your response to this letter.

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. 120016.

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:
Josephine M. Piccone

Josephine M. Piccone, Ph.D.
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:
1. 10 CFR part 19
2. Regulatory Guides 10.8 and 8.20

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