

AUG 05 1985

License No. 37-16238-01
Docket No. 030-10642
Control No. 03697

Lehigh Valley Hospital Center
ATTN: Carmine A. Pierno, M.S.
1200 South Cedar Crest Blvd.
Allentown, Pennsylvania 18105

Gentlemen:

This is in reference to your application dated April 12, 1985 to renew License No. 37-16238-01. In order to continue our review, we need the following additional information:

1. Item 10 of your application indicates Appendix D Procedures are followed for survey instruments and reference is made to the checklist submitted with License Number 37-01548-01. Please submit a completed copy of the checklist found on page 10.8-25 of Regulatory Guide 10.8 (enclosed).
2. In your procedure for dose calibrator constancy tests, item 10F (page 9), you describe a cross-check with a long-lived standard radionuclide. Please state the frequency at which this test will be performed.
3. Your procedure for receiving packages containing radioactive materials requires the involvement of security and/or storeroom personnel. These individuals need to be informed about radiation hazards and appropriate precautions. Outline your method to assure that these employees receive the necessary instruction. Confirm that this instruction will be given both initially and annually thereafter on a refresher basis.
4. In your sample memorandum on the "Receipt of Packages Containing Radioactive Material" (items 13 and 14), packages containing radioactive material that arrive at the storeroom during the day are transported to the Nuclear Medicine Department and left outside the hot lab. 10 CFR 20.207(a and b) require that licensed materials be secured against unauthorized removal from the place of storage and that materials not in storage be under constant surveillance and immediate control of the licensee. Please describe your procedures for ensuring that radioactive materials are secured against unauthorized removal at all times.
5. In your procedure for safely opening packages containing radioactive material, item 14, please confirm that the NRC Region I Office will be notified in accordance with the regulations if removable contamination exceeds $0.01 \mu\text{Ci}/100 \text{ cm}^2$ or if external radiation levels exceed 200 mR/hr at the package surface or 10 mR/hr at 3 feet (or 1m).

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6. Your area survey procedures, item 17, make reference to a wipe test procedure sufficiently sensitive to detect 100 cts/min/100 cm² above background and decontamination of areas exceeding these levels. Please indicate what activity this represents and/or the efficiency of your counting equipment for the contaminants you are concerned with.
7. Please confirm that your decay/storage room will be surveyed weekly.
8. Thyroid uptake can occur by breathing volatile iodine which is released when the cap is first removed from vials containing therapeutic liquid iodine-131. 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 iodine-131. As a minimum, thyroid counts should be obtained approximately twenty-four (24) hours after exposure. Refer to the enclosed bioassay guide.

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

9. With regard to item 21, "Procedure and Precautions for Use of Radioactive Gas," please submit the following:
 - a. You should remeasure the airflow ratings of each air supply vent and each air exhaust vent at least semiannually to determine that the system continues to operate in accordance with the specifications that you submitted. Please confirm.
 - b. Please confirm that the charcoal cartridge in the xenon trapping device will be changed per manufacturer's instructions.
 - c. 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.

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. 03697.

Sincerely,

Original Signed By:

John E. Glenn

John D. Kinneman, Chief
Nuclear Materials Safety Section A
Division of Radiation Safety
and Safeguards

Enclosures:

1. 10 CFR Part 20
2. Regulatory Guide 8.20 and 10.8

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