

FEB 26 1980

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030-01927
(99337)

Bedford Veterans Administration Medical
Center
200 Springs Road
ATTN: David I. Kurtz, P.H.
Radiation Safety Monitor, R&D
Bedford, MA 01730

Gentlemen:

This is in reference to your application dated March 30, 1979, to renew your Material License No. 20-10184-01. In order to continue our review of your application, we need the following additional information:

1. Submit a description of the duties and responsibilities of your radiation protection officer, Fred A. Rundlett, M.D., under your license. Typical duties of a radiation protection officer would be:
 - a. To ensure that the use of radioactive materials is by or under the direct supervision of individuals specifically listed on your license.
 - b. To ensure that users (when appropriate) wear personnel monitoring equipment.
 - c. To ensure that radioactive materials are properly secured against unauthorized removal at all times.
 - d. To perform routine inspections of all laboratories using or storing radioactive materials.
 - e. To routinely review your institution's entire radiation safety program for compliance with the current NRC policies and requirements.
2. In support of your request for 50 millicuries of phosphorus-32, you should develop and submit special safety instructions to be provided to individuals using millicurie quantities of P-32. We recommend that your procedures include, but not be limited to, the following:

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- a. The use of low density shielding (e.g., plexiglass) in order to keep Bremsstrahlung radiation at a minimum.
- b. A mandatory radiation survey and wipe test procedures after each use.
- c. The use of finger type extremity monitors for procedures that involve 1 millicurie or more.
- d. The use of a dry run prior to the performance of unfamiliar procedures in order to preclude unexpected complications. In addition, it is recommended that the radiation protection officer be present during new procedures.
- e. The use of eye protection for procedures that involve 10 millicuries or more.

3. We note in response to Item No. 23 of Form NRC-313M you state that individuals at your institution will work with less than 1 millicurie of organic tritium. We remind you that this is a restriction on your license, and that no individual at your institution is authorized to use more than 1 millicurie of organic tritium. If you wish to remove this restriction, you should submit your institution's planned bioassay program. For your assistance, we are enclosing the tritium bioassay guide that we find acceptable.

4. For each laboratory that will use or store high energy Beta or Gamma emitters, submit a revised diagram showing the placement and dimension of shielding materials used to reduce radiation exposures to restricted and unrestricted areas.

5. With regard to your procedures for ordering and receiving radioactive materials:

- a. Describe your procedures for receiving packages containing radioactive materials during normal and off-duty hours, and for notification of responsible persons upon receipt of radioactive materials. These procedures should be adequate to ensure 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.

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- b. It is unclear from your application exactly how radioactive materials are to be received at your institution. It is recommended that packages containing radioactive materials be received at one central location (normally the Radiation Safety Office) for an initial radiation survey and then transferred to the authorized user.

6. With regard to your personnel training program:

- a. Auxiliary personnel (clerical, housekeeping, security, animal caretakers, etc.) who may have occasion to enter restricted areas (whether escorted or not) need to be informed about radiation hazards and appropriate precautions. Outline your methods to assure that these employees receive the necessary instructions. Confirm that this instruction will be given both initially and annually thereafter on a refresher basis.
- b. Radiation workers (authorized users, laboratory technicians, students, etc.) must receive instruction as specified in 10 CFR Part 19.12 (enclosed). Note that many of these items pertain to circumstances at your particular institution; therefore, you may not assume that this instruction has been adequately covered by prior occupational training. Please outline and submit your program for providing the necessary instruction. Confirm that this instruction will be given both initially and annually thereafter on a refresher basis. If authorized users will be responsible for training their own personnel, then your radiation safety officer should review and approve the authorized user's proposed training program.

7. We note that you plan to follow the general laboratory safety instructions listed in Appendix G to Regulatory Guide 10.8. Since Appendix G instructions are intended for a typical nuclear medicine laboratory, it may not be appropriate for your institution. Specifically we do not believe that Item Nos. 4, 6, 8, and 11 apply to your institution. Accordingly, we would recommend that you develop and submit a set of general laboratory safety instructions to be followed by personnel of your institution.

8. Submit a copy of the safety instructions provided to animal caretakers for handling of animals, animal waste carcasses, and cleaning and decontamination of animal cages that were used for radionuclide experiments.

9. We have reviewed your proposed waste disposal procedures and find them acceptable. However, you may wish to modify your procedures to allow for the holding of short half-life material for decay as nonradioactive waste.

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10. In addition to using whole body badges, individuals who routinely use millicurie quantities of high energy Beta or Gamma emitters should use extremity monitors such as finger or wrist badges.

11. With regard to your authorized users:

- a. In order to bring our records up to date, we request that your current authorized users complete Items 4 and 5 of Supplement A Form NRC-313M.
- b. Since Ira Sherwin, M.D., does not currently have experience in using radioactive material, it is inappropriate to list her as an authorized user. When Dr. Sherwin has received approximately 200 hours of supervised laboratory experience, we will be pleased to amend your license accordingly.

We will continue our review of your application upon receipt of this information. Please reply in duplicate and refer to Control No. 99337.

Sincerely,

Michael A. Lamastra
Material Licensing Branch
Division of Fuel Cycle and
Material Safety

Enclosures:

1. Form NRC-313M
2. Tritium Bioassay Guide

Std. Br. Dist.

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