

OCT 15 1986

St. Joseph Hospital
ATTN: Ms. Donna Brinlee
77 North Airlite Street
Elgin, IL 60540

Gentlemen:

We have reviewed your letter dated September 24, 1986 requesting an amendment to your NRC License No. 12-06593-01 and find that we will need additional information as follows:

Xenon-133 Procedures

1. You currently have authorization for 200 millicuries of xenon-133. If you wish to increase your patient studies, you will exceed your possession limit for xenon-133. Please indicate that you wish to increase your xenon-133 possession limit to at least 400 millicuries to accommodate your request.
2. Our calculations indicate that you will exceed the maximum permissible concentration limits for unrestricted areas pursuant to Section 20.106 of 10 CFR Part 20 for xenon-133 if you perform 15 studies per week with a patient dose of 20 millicuries. Please indicate which one of the following methods you will employ to assure compliance with 10 CFR 20.106 and submit calculations as appropriate:
 - a. Limit your xenon-133 use to no more than 11 patient studies per week.
 - b. Increase your ventilation exhaust rate.
 - c. Limit patient dosage from 20 millicuries per study to 10 millicuries per study.
3. Please note that there is a percent loss of xenon-133 to unrestricted areas resulting from patient apparatus and the system even though a xenon trap is utilized. Our calculations are based on a 20 percent loss of xenon-133 that is released to the outside via the exhaust vent. Please submit your xenon-133 calculation for unrestricted areas based on your choice of 2.a., b., or c. above.

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Physician Users

1. Please clarify which groups in Schedule A, Section 35.100 of 10 CFR Part 35 Karen Meyer, M.D. wishes authorization for. Please note that Dr. Meyer has submitted qualifications to allow her authorization for Groups I, II, III and iodine-131.
2. It appears that Terrence J. Bugno, M.D. wishes authorization for Group VI as listed in Schedule A, Section 35.100 of 10 CFR Part 35. Please clarify which group(s) Dr. Bugno wishes authorization for.

If you have any questions or require clarification on any of the information stated above, you may contact us at (312) 790-5625.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 82219.

Sincerely,

Original Signed By
Kathy Graden
Materials Licensing Section

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Graden/j1
10/10/86