MARQUETTE GENERAL HOSPITAL
REGIONAL MEDICAL CENTER
ROBERT C. NELDBERG, EXECUTIVE DIRECTOR

November 12, 1982

Mr. D.J. Sreniawski
Chief, Materials Radiation Protection
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: License No. 21-05432-04 Marquette General Hospital
September 22, 1982 Inspection

Dear Mr. Sreniawski:

Thank you for your letter of November 1, 1982, which called to our attention a deficiency in the xenon-133 trap inspection.

Since your inspection in September, monthly tests have been made on October 3rd and November 8th. The November test was done following the procedure that is attached to this letter. We would like to amend our license to include this procedure if it is acceptable to you.

Based upon the above information, we feel that we have taken the necessary corrective action to comply with your standards.

If I can be of further assistance, please feel free to contact me at 906-228-9440, extension 456.

Sincerely,

James R. Richards

James R. Richards,
Assistant Administrator
Allied Health

JRR:nm
cc: R.C. Neldberg, Executive Director
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XENON TRAP INSPECTION
(To Be Done On A Monthly Basis)

Efficiency of the Pulmonex Xenon Delivery System will be maintained at an efficiency of no less than 80%. If at any time the efficiency drops to near or below 80%, the chief technologist is to be notified and replacement of the charcoal trap will follow immediately.

In addition, a yearly replacement of the charcoal trap will be implemented as according to the manufacturers recommendation even if the present traps efficiency is above 80%.

To determine trap efficiency, the following procedure is used.

1. Approximated 20 grams of activated charcoal is placed at both the intake and exhaust ports of the Pulmonex System.
2. Complete ventillation study is performed and the two samples are counted.
3. % efficiency is determined by the following equation:

$$\% \text{ efficiency} = 100\% - \left[\frac{(\text{Exhaust cts.(cpm)} - \text{Bkg}) \times 100}{(\text{Intake cts,(in cpm)} - \text{Bkg}) \times 100}\right]$$

4. A record of the following will be kept: Date, Technician, Intake counts, Exhaust counts, Background, and % efficiency.

Submitted By: Anreas Koutouzos
Chief Technologist
Nuclear Medicine Department