Logan General Hospital

Office of General Counsel

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March 4, 1994

J. Phillip Stohr, Director
Division of Radiation Safety
& Safeguards
Nuclear Regulatory Commission
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323-0199

Dear Mr. Stohr:

In response to your letter of February 25, 1994, which was received in this office on March 3, 1994, via fax, this will confirm that the training specified in Item 4 has begun. Dr. M. Koppikar has scheduled each Thursday at 2 p.m., for training of the technologists through June 2, 1994, which is 90 days from the date of this letter. Dr. Koppikar also requested me to forward to you a copy of NMA's consulting report concerning an intensive training inservice provided on February 4, 1994, by Sharon Long.

With respect to Item 3, NMA Medical Physics Consultation has advised it would commence the audits on March 24 as this was the first available date they had on their schedule. I trust this will be satisfactory with you.

With respect to Item 1, an application to name Dr. Riad Al-Asbahi to the position of Radiation Safety Officer was sent to the NRC along with the appropriate license fee on March 3, 1994.

With respect to Item 2, I personally spoke with both Dr. Riad Al-Asbahi and Dr. Koppikar and the daily reviews will continue until training is completed and the NRC is informed of the results of the training.

Very truly yours,

George L. Partain

George L. Partain
Senior Vice-President
and General Counsel

GLP:ab
Enclosure
cc: Dr. M. Koppikar
Dr. Riad Al-Asbahi

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NMA
MEDICAL PHYSICS CONSULTATION
Consultant's Report - Nuclear Medicine

2722 Penn Avenue
Pittsburgh, PA 15222
(412) 281-6113

FACILITY: Logan General Hospital **DATE OF VISIT:** 2/4/94

LOCATION: Logan, West Virginia

RSO: S. Phillips, CNMT

DOCTOR(S): M. Koppikar, M.D.

TECHNOLOGIST(S): S. Phillips; D. Kirk; L. Williams; T. Saunders; C. Adams

During this visit, an intensive training inservice was provided to the nuclear medicine department staff. Specific items discussed are listed below. Additionally, required quarterly tests and reviews were conducted. Routine record checks were not done during this visit due to the length of the training session. A listing of items discussed during the training session and routine tests and checks performed is outlined below.

The following items were discussed in detail with the nuclear medicine department staff. The information was provided in a (round table) format with ample time available for questions and answers. This is a general subject outline and is not intended to be all inclusive of items discussed during the training session.

1. Survey meters
2. Incoming radiopharmaceutical shipments
3. Dose calibrator testing
4. Camera quality control
5. Generators
6. Mixing radiopharmaceutical kits
7. Waste disposal
8. Radiopharmaceutical returns
9. Radiopharmaceutical dose administration
10. Safety surveys
11. Safe use of radiopharmaceuticals
12. Emergency procedures

Record keeping requirements according to 10 CFR Part 35 regarding the above list of items was discussed in detail with the technologists . Additionally, the license and

license application including the appropriate appendices was discussed. Documentation of this training program for all technologists involved is included with this report.

II. Personnel Dosimetry

1. Personnel dosimetry records were reviewed through 11/4/93. For the calendar quarter ending 10/4/93, all personnel received exposures less than the Level I limits established under the ALARA program with one exception. H. Phillips received an exposure of 140 millirems to his whole body which is slightly above ALARA Level I. Additionally, Mr. Phillips ring badge for the exposure period 9/5/93 to 10/4/93 was missing. It is recommended that an exposure estimate based on the previous six month history be submitted to the film badge vendor for inclusion in Mr. Phillips lifetime exposure history.

   A new employee, Charles Adams who previously worked in the radiology department and thus already being monitored for whole body exposure was appropriately issued a TLD extremity monitor. Results for the month 10/5/93 to 11/4/93 were available for review during this consultation. It was noted that for a one month period Mr. Adams received 1310 millirems to his hands. While this number is below the ALARA limit of 1875 for a quarter, it is likely that Mr. Adams will exceed the ALARA limits when results of a full three month monitoring period are available. This matter should be discussed with Mr. Adams and all members of the radiation safety committee to assure future exposures do not exceed safe limits.

V. Radiopharmaceuticals

3. Prescription dose ranges are available for review. The ranges were updated on January 7, 1993. These ranges should be either posted or made available to all department personnel for reference.

VI. Sealed Sources

Radioactive sealed sources were inventoried as required by regulations. No new standards have been acquired, nor old standards discarded. An inventory page is attached for your review.

Leak tests were performed on all gamma or beta emitters over 100 Uci. No excessive removable contamination was found. Numerical results of these tests are contained within the body of this report.

X. Equipment

1. Operational checks were performed on the survey instruments available in the department and all were found to be within normal limits. Constancy checks were done on each of the meters with available check sources. All survey instruments checked are functioning within acceptable limits. All meters are of recent calibration with calibration certificates on file. The Eberline G-M meter S/N 2878 was returned to our Cleveland office for its' annual calibration.

12. The Specialty Electronics well detector was evaluated for proper operating voltage, constancy, and crystal resolution. All parameters tested were found to be within acceptable limits. Numerical data for the parameters tested can be found on the enclosed equipment evaluation form. Additionally, an efficiency and a minimum detectable activity evaluation was performed on this unit. Results of this test are included with this report.

The required quarterly activity linearity was conducted on the dose calibrator CRC-5, S/N 51824 on January 5, 1994. This test demonstrates the instrument is capable of measuring activity in a linear fashion from 30.9 mCi to 3.7 uCi. Please be reminded that, should at any time a patient dose be anticipated to exceed the 30.9 mCi upper limit, a new linearity evaluation encompassing the highest dose given for patient studies must be conducted prior to administration.

A sealed source site survey was conducted using the Eberline survey meter, S/N 3104 during this consulting visit. No excessive exposure readings were noted. Numerical data obtained during this test is contained within the body of this report.

If you have any questions regarding the content of this report, please do not hesitate to contact me.

Sharon L. Long
Consultant

SLL:rjm