FOSTER G. McGAW HOSPITAL
LOYOLA UNIVERSITY OF CHICAGO
2160 South First Avenue, Maywood, Illinois 60153 312 531-3777

DEPARTMENT OF NUCLEAR MEDICINE

February 28, 1983

D.G. Wiedeman, Chief
Materials Radiation Protection Section
U.S. Nuclear Regulatory Commission, Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Wiedeman:

This is in response to your February 14, 1983 letter to Mr. John Imirie concerning results of a recent inspection of Loyola University Medical Center (License No. 12-11355-04).

1. In order to insure the records of molybdenum-99 breakthrough tests are properly maintained, we have initiated a policy requiring all Mo-99 breakthrough documentation be reviewed and initialed by a supervisor or physician in charge, within two hours after elution of the Tc-99M generator. This policy is presently in effect.

   Furthermore, the form on which Mo-99 breakthrough is recorded is in the process of being modified and clarified, and the technologists have been advised to consult a supervisor if a conservatively set action level of Mo-99 activity in the eluent is exceeded. Also, if a reading of the simulated Mo-99 source (taken each time a generator is eluted) falls outside reasonable bounds, the technologists have been advised to consult with their supervisor as this may indicate dose calibrator malfunction. Modification of the form and initiation of the other changes will be accomplished within three weeks.

2. We have now formally adopted a policy whereby the daily check procedure (using a Radium standard) of the Radx Dose Calibrator will be performed by one of the two members of the Radiation Control Section. On the rare occasion when neither of these individuals is available, due, for example to illness, they will assign the task to some other qualified person.

   A review of our records has shown that during the past year the Dose Calibrator check was performed on all normal working days, with very few exceptions. Gaps in performance occurred during

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the time period when our Radiaton Control staff level was down to one person. In order to prevent recurrence of such a situation and to improve the Radiation Control program, an additional position has been requested. The opinion of your representatives as to the adequacy of our staffing has proven helpful. We feel addition of this position will, incidentally, prevent recurrence of violations described in items (3) and (4) of your letter.

When the Radx Dose Calibrator is to be used on other than normal working days, it will be checked with the Radium standard if the reading from the simulated Mo-99 source (i.e., the "breakthrough" test) indicates malfunction or drift.

5. We are presently in the process of reviewing film badge and TLD monitor exposure records of all radioisotope users who have the possibility of exceeding 0.25 MPD, to determine if we have overlooked any lost monitors in addition to the TLD ring badge discussed in your letter. This review will include records up to two years old and will be complete within three weeks. Missing exposures will be estimated and these will be added to lifetime totals. In the future, the investigative procedure will be carried out monthly and exposure records updated on an annual basis.

6. We have initiated a form on which results of survey of all decayed licensed material will be maintained. The survey date and date the material was set aside for decay will be recorded as well as maximum surface reading. This documentation of survey is presently in effect.

Sincerely,

Robert E. Henkin,M.D., Chairman
Loyola Medical Center Radiation
Control Committee

cc: Dr. Richard A. Matre, Provost
Mr. John F. Imirie, Hospital Director
Dr. Kevin Corrigan, Radiation Control
Supervisor