PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUN 2 1980

Bloomington Hospital
ATTN: Mr. Roland E. Kohr
President
605-625 West Second Street
Bloomington, Indiana 47401

License No. 13-10408-01
License No. 13-10408-02
License No. SNM-1746

Gentlemen:

This refers to the inspection conducted by Messrs. D. G. Wiedeman, W. P. Reichhold and W. Slawinski of this office on May 14, 1980, of activities at Bloomington Hospital authorized by NRC Byproduct Material Licenses No. 13-10408-01, No. 13-10408-02 and No. SNM-1746 and to the discussion of our findings with you, Margaret Beckler, R.T., and Glenn Mather, M.D.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your licenses. The inspection consisted of a selective examination of procedures and representative records, observations, independent measurements, and interviews with personnel.

In addition to the above areas, the inspectors examined actions described in letters dated April 13, 1976 and November 9, 1978, signed by Phil Lewis, R.T., and Margaret Keller, R.N.; respectively, regarding apparent items of noncompliance found during our March 18, 1976 and September 27, 1978 inspections of Licenses No. 13-10408-01 and No. SNM-1746. We have no further questions regarding these matters.

No items of noncompliance with NRC requirements were identified during the course of this inspection of Licenses No. 13-10408-01 and No. SNM-1746.

However, during the inspection of License No. 13-10408-02, it was found that certain of your activities appear to be in noncompliance with NRC requirements, as described in the enclosed Appendix A.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within twenty days of your receipt of this notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

This inspection also included a measurement of the output of your teletherapy equipment. Our measurement was made using a Victoreen Model 570 Condenser R-Meter with Model 621 chamber, calibrated by the National Measurements Laboratory. The source-to-chamber distance was 80 centimeters and the field size used was 10 by 10 centimeters. After applying standard correction factors for temperature, pressure, attenuation, inverse square, backscatter, timer error, and Roentgen-to-rad conversion, our measurement of the output of your teletherapy equipment was 109.02 rads per minute at the point of maximum buildup in a water phantom. The most recent full calibration of your teletherapy equipment, conducted on April 1, 1980 and extrapolated for May 1980, reported a measured output for the same exposure parameters of 109.8 rads per minute.

Based on the close agreement in measured output values, we feel the actual output of your teletherapy equipment to be within established guidelines of $\pm$ 5 percent.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

A B Davis

A. B. Davis, Chief
Fuel Facility and
Materials Safety Branch

Enclosure: Appendix A,
Notice of Violation

cc w/encl:
Glenn Mather, M.D.
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