30-01447

DEC 2 7 1904

Decatur Memorial Hospital ATTN: Mr. C. B. Bonnet Vice President 2300 North Edward Street Decatur, Illinois 62526 License No. 12-03332-02 License No. 12-03332-03

Gentlemen:

This refers to the routine safety inspection conducted by Dr. L. W. Shatterly and Mr. D. R. Gibbons of this office on December 9, 1982, of activities authorized by NRC Byproduct Material Licenses No. 12-03332-02 and No. 12-03332-03 and to the discussion of our findings with you and selected members of your staff at the conclusion of the inspection.

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 license. The inspection consisted of a selective examination of procedures and representative records, observations, independent measurements, and interviews with personnel.

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 Bureau of Standards Laboratory. The source-to-chamber distance was 80 centimeters and the field size used was ten by ten centimeters. After applying standard correction factors for temperature, pressure, attenuation, inverse square, timer error, chamber factor, and roentgen-to-rad conversion, our measurement of the output of your teletherapy equipment was 95.5 rads per minute at the point of maximum buildup in an extended tissue phantom. The most recent spot check measurement of your teletherapy equipment, conducted on December 8, 1982, reported a measured output for the same exposure parameters of 95 rads per minute. Applying a correction factor to account for one day decay, the value calculated from the December 8, 1982, calibration becomes 94.96 rads per minute.

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

In addition to the above areas, the inspectors examined actions described in your letter dated April 24, 1980, regarding apparent items of noncompliance found during our April 1, 1980, inspection. We have no further questions regarding these matters.

During this inspection, no items of noncompliance were identified for License No. 12-03332-03; however, for License No. 12-03332-02, certain of your activities appeared to be in noncompliance with NRC requirements, as specified in the enclosed Appendix. A written response is required.

The responses directed by this letter (and the accompanying Notice) are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

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

Sincerely,

D. G. Wiedeman, Chief

Materials Radiation Protection

Section 1

Enclosure: Appendix, Notice of Violation

cc w/encl: John Wallace, Radiation Safety Officer G. Richard Locke, M.D., Director Radiology DMB/Document Control Desk (RIDS)

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Shatterly/sv 12/18/82

Gibbons