



**Medical College of Virginia
Virginia Commonwealth University**

October 4, 1989

William E. Cline, Chief
Nuclear Materials Safety and Safeguards Branch
Division of Radiation Safety and Safeguards
U. S. Nuclear Regulatory Commission, Region II
101 Marietta Street, N.W.
Atlanta, Georgia 30323

Gentlemen:

SUBJECT: NOTICE OF VIOLATION DATED SEPTEMBER 21, 1989
Docket No. 030-00511
License No. 45-00048-19

Pursuant to provisions of 10 CFR §2.201, Virginia Commonwealth University is hereby submitting to your office the following written statements and explanations in reply to the violations listed in the Notice of Violation, dated September 21, 1989.

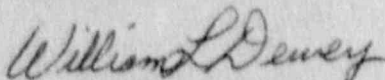
- A. The University agrees that during full calibration measurements of the Philips Model 9811 ⁶⁰Co teletherapy unit on November 20, 1987 and November 19, 1988, the output for a 25 x 25 centimeter field size was not measured. This finding was discussed with Myung Choi, Ph.D., the teletherapy physicist. This deficiency was due to a misunderstanding between the Radiation Safety Section and the Department of Radiation Oncology regarding the regulatory requirements for full calibration measurements. The form used for full calibrations has been modified to include the range of distances and field sizes for all medical use. The records in Radiation Oncology are reviewed by the Radiation Safety Section on a semi-annual basis. Radiation Safety will ensure that all records are up-to-date during this semi-annual review.
- B. The University agrees that during monthly spot-checks performed between June 3, 1987 and September 1, 1989, the timer constancy and timer linearity of the Philips Model 9811 ⁶⁰Co teletherapy unit was not determined. This finding was discussed with Myung Choi, Ph.D., teletherapy physicist. This deficiency was due to a misunderstanding between the Radiation Safety Section and the Department of Radiation Oncology regarding the regulatory requirements for monthly spot-check measurements. The form used for monthly spot-checks has been modified to include the determination of timer constancy and timer linearity. In addition to the semi-annual review of records, the Radiation Safety Section will review these spot-checks on a monthly basis for a period of one year to ensure that the required determinations are performed, and then semi-annually thereafter.
- C. The University agrees that during monthly spot-checks performed on August 24, 1988, April 17, 1989, and August 10, 1989, the timer on-off error was not determined. This finding was discussed with Myung Choi, Ph.D., teletherapy physicist. While the actual measurements for the timer on-off error were performed, it was determined that the error was not calculated and recorded. This was an oversight on the part of the teletherapy physicist. In addition to the semi-annual review of records, the Radiation Safety Section will review spot-checks on a monthly basis for a period of one year to ensure that the required determinations are performed, and then semi-annually thereafter.

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If after reviewing the information contained within this letter you still have questions or need additional information, please contact Dr. Broga or Mary Beth Taormina in the Office of Environmental Health & Safety.

Sincerely,



William L. Dewey, Ph.D.
Associate Provost for Research & Graduate Affairs