

NOTICE OF VIOLATION

Marquette General Hospital  
Marquette, MI

License No. 21-05432-04  
License No. 21-05432-05

As a result of the inspection conducted on October 24, 1989, and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" 10 CFR Part 2, Appendix C, (1989) (Enforcement Policy) the following violations were identified:

For License No. 21-05432-04:

1. 10 CFR 35.59(d) requires that records of leak test results contain the model number, and serial number if assigned, of each source tested, the identity of each source radionuclide and its estimated activity, the measured activity of each test sample expressed in microcuries, a description of the method used to measure each test sample, the date of the test, and the signature of the Radiation Safety Officer.

Contrary to the above, as of October 24, 1989, records of leak test results did not contain the model number and serial number of each source tested, the estimated activity, the measured activity of each test sample expressed in microcuries and the signature of the Radiation Safety Officer.

This is a Severity Level V violation. (Supplement VI)

2. 10 CFR 35.70(b) requires that licensees survey with a radiation detection survey instrument at least once each week all areas where radiopharmaceuticals or radiopharmaceutical waste is stored.

Contrary to the above, as of October 24, 1989, surveys with a radiation detection survey instrument were not being performed at least once each week in all areas where radiopharmaceutical waste was stored. Specifically, a waste storage area containing iodine-131 waste was surveyed on only five occasions from September 4, 1988 to August 2, 1989.

This is a Severity Level IV violation. (Supplement VI)

3. 10 CFR 35.70(e) requires that licensees survey for removable contamination once each week all areas where radiopharmaceuticals are routinely prepared for use, administered, or stored.

Contrary to the above, surveys for removable contamination were not performed once each week in all areas where radiopharmaceuticals were routinely stored. Specifically, a waste storage area containing iodine-131 was not surveyed for removable contamination from August 17, 1988 to October 25, 1989.

For License No. 21-05432-05:

1. 10 CFR 35.632(a) requires a licensee to perform full calibration measurements on each teletherapy unit before medical use following replacement of the source and at intervals not exceeding one year.

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10 CFR 35.632(b) states, in part, that to satisfy Paragraph (a), of this section, full calibration measurements must include determination of:

- a. The output for the range of field sizes and for the range of distances used for medical use;
- b. Timer linearity over the range of use.

Contrary to the above, the licensee failed to satisfy the full calibration requirements of 35.632(a) in that the following procedures were not performed.

- a. The licensee failed to determine the output for the range of field sizes and the range of distances used for medical use from December 2, 1987 to October 25, 1989, an interval exceeding one year.
- b. The licensee failed to determine timer linearity over the range of use from December 2, 1987 to October 25, 1989, an interval exceeding one year.

This is a Severity Level IV violation. (Supplement VI)

- 2. 10 CFR 35.634(a) requires, in part, that a licensee authorized to use teletherapy units for medical use shall perform output spot-checks on each teletherapy unit once in each calendar month that include, in part, determination of timer linearity over the range of use.

Contrary to the above, the licensee failed to include determination of timer linearity in performance of output spot-checks from December 2, 1987 to October 1989.

This is a Severity Level IV violation. (Supplement VI)

Pursuant to the provisions of 10 CFR 2.201, you are required to submit to this office within thirty days of the date of this Notice a written statement or explanation in reply, including for each violation: (1) the corrective steps that have been taken and the results achieved; (2) the corrective steps that will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

Dated

December 29, 1989

Roy J. Caniano  
Roy J. Caniano