

4731.4472 TELETHERAPY UNITS; PERIODIC SPOT CHECKS.

Subpart 1. **Output spot checks required.** A licensee authorized to use teletherapy units for medical use must perform output spot checks on each teletherapy unit once in each calendar month that include determination of:

- A. timer accuracy and timer linearity over the range of use;
- B. on-off error;
- C. the coincidence of the radiation field and the field indicated by the light beam localizing device;
- D. the accuracy of all distance-measuring and localization devices used for medical use;
- E. the output for one typical set of operating conditions measured with the dosimetry system described in part 4731.4468, subpart 2; and
- F. the difference between the measurement made in item E and the anticipated output, expressed as a percentage of the anticipated output, that is, the value obtained at last full calibration corrected mathematically for physical decay.

Subp. 2. **Written procedures.** A licensee must perform measurements required under subpart 1 according to written procedures established by the authorized medical physicist. The authorized medical physicist need not actually perform the spot check measurements.

Subp. 3. **Review.** A licensee must have the authorized medical physicist review the results of each spot check within 15 days. The authorized medical physicist must notify the licensee as soon as possible in writing of the results of each spot check.

Subp. 4. **Safety spot checks required.** A licensee authorized to use a teletherapy unit for medical use must perform safety spot checks of each teletherapy facility once in each calendar month and after each source installation to ensure proper operation of:

- A. electrical interlocks at each teletherapy room entrance;
- B. electrical or mechanical stops installed to limit use of the primary beam of radiation, including restriction of source housing angulation or elevation, carriage or stand travel, and operation of the beam on-off mechanism;
- C. source exposure indicator lights on the teletherapy unit, on the control console, and in the facility;
- D. viewing and intercom systems;
- E. treatment room doors from inside and outside the treatment room; and
- F. electrically assisted treatment room doors with the teletherapy unit electrical power turned off.

Subp. 5. **Malfunctions.** If the results of the checks required under subpart 4 indicate the malfunction of any system, a licensee must lock the control console in the off position and not use the unit except as may be necessary to repair, replace, or check the malfunctioning system.

Subp. 6. **Record retention.** A licensee must retain a record of each spot check required under subparts 1 and 4 and a copy of the procedures required under subpart 2 according to part 4731.4519.

Statutory Authority: *MS s 144.1202; 144.1203*

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