

3701:1-58-66    **Periodic spot-checks for gamma stereotactic radiosurgery units.**

- (A) A licensee authorized to use a gamma stereotactic radiosurgery unit for medical use shall perform spot-checks of each gamma stereotactic radiosurgery facility and on each unit:
  - (1) Monthly;
  - (2) Before the first use of the unit on a given day; and
  - (3) After each source installation.
  
- (B) A licensee shall:
  - (1) Perform the measurements required by paragraph (A) of this rule in accordance with written procedures established by the authorized medical physicist. That individual need not actually perform the spot-check measurements.
  - (2) Have the authorized medical physicist review the results of each spot-check within fifteen days. The authorized medical physicist shall notify the licensee as soon as possible in writing of the results of each spot-check.
  
- (C) To satisfy the requirements of paragraph (A)(1) of this rule, spot-checks must, at a minimum:
  - (1) Assure proper operation of:
    - (a) Treatment table retraction mechanism, using backup battery power or hydraulic backups with the unit off;
    - (b) Helmet microswitches;
    - (c) Emergency timing circuits; and
    - (d) Stereotactic frames and localizing devices (trunnions).
  - (2) Determine:
    - (a) The output for one typical set of operating conditions measured with the dosimetry system described in paragraph (B) of rule 3701:1-58-60 of the Administrative Code;
    - (b) The difference between the measurement made in paragraph (C)(2)(a) of this rule and the anticipated output, expressed as a percentage of the anticipated output (i.e., the value obtained at last full calibration corrected mathematically for radioactive decay);
    - (c) Source output against computer calculation;
    - (d) Timer accuracy and linearity over the range of use;

- (e) On-off error; and
  - (f) Trunnion centricity.
- (D) To satisfy the requirements of paragraphs (A)(2) and (A)(3) of this rule, spot-checks must assure proper operation of:
- (1) Electrical interlocks at each gamma stereotactic radiosurgery room entrance;
  - (2) Source exposure indicator lights on the gamma stereotactic radiosurgery unit, on the control console, and in the facility;
  - (3) Viewing and intercom systems;
  - (4) Timer termination;
  - (5) Radiation monitors used to indicate room exposures; and
  - (6) Emergency off buttons.
- (E) A licensee shall arrange for the repair of any system identified in paragraph (C) of this rule that is not operating properly as soon as possible.
- (F) If the results of the checks required in paragraph (D) of this rule indicate the malfunction of any system, a licensee shall 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.
- (G) A licensee shall retain a record of each check required by paragraphs (C) and (D) of this rule and a copy of the procedures required by paragraph (B) of this rule in accordance with rule 3701:1-58-97 of the Administrative Code.

Five Year Review (FYR) Dates: 06/12/2015 and 06/01/2020

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Certification

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