**Section 335.8170 Periodic Spot-Checks for Remote Afterloader Units**

a) A licensee authorized to use a remote afterloader unit for medical use shall perform spot-checks of each remote afterloader facility and on each unit:

1) Before the first use of a high dose-rate, medium dose-rate or pulsed dose‑rate remote afterloader unit on a given day;

2) Before each patient treatment with a low dose-rate remote afterloader unit; and

3) After each source installation.

b) A licensee shall perform the measurements required by subsection (a) of this Section in accordance with written procedures established by the authorized medical physicist. That individual need not actually perform the spot-check measurements.

c) A licensee shall have the authorized medical physicist review the results of each spot‑check within 15 days. The authorized medical physicist shall notify the licensee as soon as possible in writing of the results of each spot-check.

d) To satisfy the requirements of subsection (a) of this Section, spot-checks must, at a minimum, assure proper operation of:

1) Electrical interlocks at each remote afterloader unit room entrance;

2) Source exposure indicator lights on the remote afterloader unit, on the control console and in the facility;

3) Viewing and intercom systems in each high dose-rate, medium dose-rate and pulsed dose-rate remote afterloader facility;

4) Emergency response equipment;

5) Radiation monitors used to indicate the source position;

6) Timer accuracy;

7) Clock (date and time) in the unit's computer; and

8) Decayed sources activity in the unit's computer.

e) If the results of the checks required in subsection (d) of this Section 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.

f) A licensee shall retain a record of each spot-check for remote afterloader units required by this Section for 5 years.

g) The record must include, as applicable:

1) The date of the spot-check;

2) The manufacturer's name, model and serial number for the remote afterloader unit and source;

3) An assessment of timer accuracy;

4) Notations indicating the operability of each entrance door electrical interlock, radiation monitors, source exposure indicator lights, viewing and intercom systems and clock and decayed source activity in the unit's computer; and

5) The name of the individual who performed the periodic spot-check and the signature of the authorized medical physicist who reviewed the record of the spot-check.

h) A licensee shall retain a copy of the procedures required by subsection (b) of this Section until the licensee no longer possesses the remote afterloader unit.

(Source: Added at 30 Ill. Reg. 9029, effective April 28, 2006)