

**10A NCAC 15 .0506 SURVEY INSTRUMENTS**

(a) The licensee or registrant shall maintain sufficient calibrated and operable radiation survey instruments at each temporary jobsite and at any location where sealed sources or radiation machines are used or stored to make physical radiation surveys as required by this Rule and Rules .1613 and .1627 of this Chapter.

(b) Each radiation survey instrument required by Paragraph (a) of this Rule shall be calibrated:

- (1) at intervals not to exceed six months and after each instrument servicing except for battery change;
- (2) at the following points for each instrument, as applicable:
  - (A) linear scale instruments shall be calibrated at two points located approximately 1/3 and 2/3 of full-scale on each scale;
  - (B) logarithmic scale instruments shall be calibrated at the midrange of each decade and at two points in the same decade for at least one decade; and
  - (C) digital instruments shall be calibrated in accordance with procedures that include the following calibration points:
    - (i) 2 mR/hr or 0.02 mSv/hr;
    - (ii) 5 mR/hr or 0.05 mSv/hr;
    - (iii) 50 mR/hr or 0.5 mSv/hr;
    - (iv) 500 mR/hr or 5 mSv/hr; and
    - (v) 1 R/hr or 0.01 Sv/hr;
- (3) so that an accuracy within plus or minus 20 percent of the calibration standard can be demonstrated on each scale.

(c) Instrumentation required by this Rule shall have a range such that two milliroentgens (0.02 millisieverts) per hour through one roentgen (0.01 sievert) per hour can be measured.

(d) Survey instruments shall be checked for operability prior to use. This may be accomplished by evaluating the instrument response to the previously measured fields at the projection sheath port or the control cable sheath port on a radiographic exposure device.

(e) The licensee or registrant shall maintain records of the results of the instrument calibrations in accordance with Rule .0523 of this Section.

*History Note: Authority G.S. 104E-7; 104E-12(a)(1);  
Eff. February 1, 1980;  
Temporary Amendment Eff. August 20, 1994, for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;  
Amended Eff. April 1, 1999; May 1, 1995; January 1, 1994;  
Transferred and Recodified from 15A NCAC 11 .0506 Eff. February 1, 2015;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 22, 2019.*