10A NCAC 15 .2008 CALIBRATION OF SURVEY INSTRUMENTS AND DOSIMETRY SYSTEMS

(a) Survey Instruments, when employed by the licensee to perform surveys required by this section:

(1) The licensee shall ensure that the survey instruments used to show compliance with the provisions of this Rule have been calibrated before first use, at intervals not to exceed 12 months and following repair.

(2) To satisfy the requirements of Subparagraph (1) of this Paragraph, the licensee shall:

(A) Calibrate all required scale readings up to 10 mSv or 1000 mrem per hour with an appropriate radiation source that is traceable to the National Institute of Standards and Technology;

(B) Calibrate at least two points on each scale to be calibrated. These points should be at approximately 1/3 and 2/3 of full-scale; and

(3) To satisfy the requirements of Subparagraph (a)(2) of this Rule, the licensee shall consider a point as calibrated if the indicated dose rate differs from the calculated dose rate by not more than 10 percent.

(4) The licensee shall retain a record of each calibration required in Paragraph (a) of this rule for three years. The record shall include:

(A) A description of the calibration procedure; and

(B) A description of the source used and the certified dose rates from the source, and the rates indicated by the instrument being calibrated, the correction factors deduced from the calibration data, the signature of the individual who performed the calibration, and the date of calibration.

(5) The licensee may obtain the services of individuals licensed by the Agency, the US Nuclear Regulatory Commission or an Agreement State to perform calibrations of survey instruments. Records of calibrations that contain information required by Paragraph (d) of this Rule shall be maintained for three years by the licensee.

(6) The record must include the model and serial number of the instrument, the date of the calibration, the results of the calibration, and the name of the individual who performed the calibration.

(b) Dosimetry system:

(1) A licensee shall have a calibrated dosimetry system available for use. To satisfy this requirement, one of the following two conditions must be met.

(A) The system must have been calibrated using a system or source traceable to the National Institute of Standards and Technology and published protocols accepted by nationally recognized bodies; or by a calibration laboratory accredited by the American Association of Physicists in Medicine. The calibration must have been performed within the previous two years and after any servicing that may have affected system calibration; or

(B) The system must have been intercompared with another dosimetry system that was calibrated within the previous two years by National Institute of Standards and Technology or by a calibration laboratory accredited by the American Association of Physicists in Medicine. The results of the intercomparison must indicate that the calibration factor of the licensee's system had not changed by more than two percent.

(2) A licensee shall retain a record of the calibration, intercomparison, and comparisons of its dosimetry equipment done for three years after the record is made. For each calibration, intercomparison, or comparison, the record must include:

(A) The date;

(B) The manufacturer's name, model numbers and serial numbers of the instruments that were calibrated, intercompared, or compared as required by Paragraphs (b)(1) and (b)(2) of this Rule;

(C) The correction factor that was determined from the calibration or comparison or the apparent correction factor that was determined from an intercomparison; and

(D) The names of the individuals who performed the calibration, intercomparison, or comparison.

History Note: *Authority G.S. 104E-7;*
Eff. October 1, 2025.