

10A NCAC 15 .0512 PERSONNEL MONITORING

- (a) The licensee or registrant shall not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, each such individual wears on the trunk of the body a direct reading pocket dosimeter, an operating alarm ratemeter, and a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor. At permanent radiography facilities where other alarming or warning devices are in routine use, the wearing of an alarming ratemeter is not required. Direct reading pocket dosimeters shall have a range from zero to 200 milliroentgens (2 millisieverts) and shall be recharged at the start of each shift. Each personnel dosimeter shall be assigned to and worn by only one individual. Film badges shall be exchanged at least monthly, and other personnel dosimeters that are processed and evaluated by an accredited NVLAP processor shall be exchanged at least once each three months. Each film badge or other personnel dosimeter shall be submitted for processing within 30 days of replacement.
- (b) Electronic personal dosimeters may be used in place of direct reading ion-chamber pocket dosimeters.
- (c) Direct reading dosimeters such as electronic personal dosimeters or pocket dosimeters shall be read and exposures recorded at the beginning and end of each shift.
- (d) Direct reading dosimeters such as pocket dosimeters or electronic personal dosimeters shall be checked at periods not to exceed 12 months for correct response to radiation. Acceptable dosimeters shall read within plus or minus 20 percent of the true radiation exposure.
- (e) If an individual's pocket dosimeter is found to be off-scale or if the individual's electronic personal dosimeter reads greater than 200 millirem (2 millisieverts), and the possibility of radiation exposure cannot be ruled out as the cause, the individual's personnel dosimeter shall be immediately sent for processing. In addition, the individual shall not work with sealed sources until a determination of his radiation exposure has been made by the radiation safety officer or his designee.
- (f) If a personnel dosimeter is lost or damaged, the worker shall cease work immediately until a replacement personnel dosimeter is provided and exposure is calculated for the time period from issuance to loss or damage of the personnel dosimeter.
- (g) Each alarm ratemeter shall:
- (1) be checked to ensure that the alarm functions properly prior to use at the start of each shift;
 - (2) be set to give an alarm signal at a preset rate not to exceed 500 mR/hr or 5 mSv/hr;
 - (3) require special means to change the preset alarm function;
 - (4) alarm within plus or minus 20 percent of the true radiation rate;
 - (5) be calibrated at periods not to exceed one year for correct response to radiation.
- (h) Records of daily dosimeter readings, determination of exposure as a result of a lost or damaged personnel dosimeter, 12 month response checks on dosimeters and results from the accredited NVLAP personnel dosimeter processor shall be maintained in accordance with Rule .0523 of this Section.
- (i) Notwithstanding the requirements of Paragraph (a) of this Rule, the agency may approve a higher pocket dosimeter range upon written request by the licensee or registrant if the agency determines that the requested range shall afford the protection required by the rules in this Chapter.

*History Note: Authority G.S. 104E-7; 104E-12(a)(2);
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. January 1, 2005; April 1, 1999; May 1, 1995;
Transferred and Recodified from 15A NCAC 11 .0512 Eff. February 1, 2015;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 22, 2019.*