

**10A NCAC 15 .0807      SECURITY      SCREENING      EQUIPMENT      REQUIREMENTS      FOR  
GOVERNMENT USE ONLY**

(a) All security screening devices shall meet the following additional requirements:

- (1) Security screening RGDs shall only be utilized by accredited bomb squads, certified bomb technicians, law enforcement agencies, or forensic investigators.
- (2) The operator must be present and maintain access control during operation of the RGD. If the RGD is not operated in a restricted area and the RGD is capable of producing a radiation area, the operator shall:
  - (A) establish a visible barrier;
  - (B) perform a visual check of the controlled area to ensure all unauthorized individuals are removed prior to activating or initiating the RGD; and
  - (C) if the operator is unable to maintain visual control of the area during operation of the RGD, the operator is required to implement additional means to control the area so no one can access the radiation area.
- (3) Utilization logs shall be maintained each time the RGD is used and accurately include the following:
  - (A) date and time of use;
  - (B) location of use; and
  - (C) operator of the RGD.
- (4) Records of utilization logs shall be available for agency review during inspection.

(b) All security screening systems shall meet the following additional requirements:

- (1) Security screening systems shall only be utilized in a correctional institution, detention center, jail, or prison for public safety and security screening purposes.
- (2) No individual shall be exposed to the useful beam unless authorized by a law enforcement agency representative.
- (3) No individual shall be exposed to the useful beam for demonstration or training purposes.
- (4) Screening of staff for training purposes is prohibited.
- (5) Policies and procedures shall be established for screening of minors and pregnant individuals.
- (6) An inspection zone shall be:
  - (A) established around the system where bystanders are prohibited during operation;
  - (B) visibly marked; and
  - (C) the ambient dose equivalent outside the inspection zone shall not exceed 2 mrem (20 microSv) in any 1 hour.
- (7) The system shall be stationary, and the exposure switch shall be located in a manner requiring the operator to remain behind a protected barrier during the entire exposure while able to view the following:
  - (A) the individual being scanned;
  - (B) the inspection zone; and
  - (C) any access areas.
- (8) Equipment surveys shall be conducted to verify compliance with reference effective dose limits, the inspection zone, and manufacturer specified parameters. Surveys shall be performed:
  - (A) upon installation;
  - (B) every 12 months; and
  - (C) after maintenance that may affect the system's shielding or x-ray beam.
- (9) Reference effective dose limits shall be met as follows:
  - (A) General-use systems reference effective dose shall not exceed 25 microrem (.25 microSv) per screening.
  - (B) Limited-use systems reference effective dose shall not exceed 1 mrem (10 microSv) per screening.
  - (C) The reference effective dose received by an individual shall not exceed 25 mrem (250 microSv) in a 12-month period for both general use and limited-use systems.
- (10) Compliance to reference effective dose limits shall be demonstrated by the registrant maintaining records of each individual screened. Records shall show one of the following:
  - (A) the number of screenings each individual received, for General-use systems, does not exceed 1,000 in a 12-month period; or

- (B) the reference effective dose multiplied by the number of screenings, for both General-use and Limited-use systems, does not exceed 25 mrem (250 microSv) in a 12-month period.
- (11) Records of each individual scanned at the same facility shall be available for review by an authorized representative of the Radiation Protection Section during inspection.
- (12) Each individual being screened shall be informed the system emits radiation and be provided with the following prior to scanning:
  - (A) the estimated effective dose from one screening;
  - (B) an example to compare the dose to a commonly known source of radiation; and
  - (C) confirmation the screening complies with the reference effective dose limits in Subparagraph (b)(9) of this Rule.

*History Note: Authority G.S. 104E-7;  
Eff. October 1, 2015;  
Amended Eff. November 1, 2024.*