

10A NCAC 15 .0804 OPERATING REQUIREMENTS

- (a) RGDs shall only be operated by individuals who have completed the requirements in Rule .0803 of this Section.
- (b) No individual shall be permitted to operate an RGD in any manner other than that specified in the operating procedures, unless the individual has obtained written approval from the individual responsible for radiation protection as defined in 10A NCAC 15 .0802(17).
- (c) Normal operating and emergency procedures from the manufacturer or supplier of the RGD shall be available to all operators and support staff for review during the use of an RGD.
- (d) Normal operating and emergency procedures shall include the following:
 - (1) safe use of the RGD;
 - (2) protocols in the event of device malfunction, emergency, or incident involving radiation exposure; and
 - (3) instructions on reporting to the individual responsible for radiation protection of actual or suspected accidental exposure or other radiation safety concerns, such as any unusual occurrence or malfunction that may involve exposure to radiation.
- (e) Open beam and portable handheld RGDs
 - (1) Registrants shall have operating procedures developed to ensure radiation protective measures are:
 - (A) provided to meet the requirements of Rule .1601(a)(15) of this Chapter;
 - (B) taken to avoid exposure to any individual from the transmitted primary x-ray beam in cases where the primary x-ray beam is not intercepted by a detector device during operation; and
 - (C) available to all individuals operating the RGD.
 - (2) Operators shall not do the following while operating an RGD:
 - (A) point the primary beam at any individual including him or herself;
 - (B) allow their hand to approach the primary beam; or
 - (C) hold a sample. If a sample is small and it is necessary to hold the sample while operating the RGD, the sample shall be placed in a shielded sample enclosure.
- (f) Operating and emergency procedures shall be available for review by the individual responsible for radiation protection during inspection.
- (g) Alignment procedures shall be performed as recommended by the RGD manufacturer.
- (h) Special alignment procedures shall only be used when approved by the individual responsible for radiation protection and manufacturer of the RGD.
- (i) Safety Devices
 - (1) Testing
 - (A) Safety devices including interlocks, shutters, and warning lights shall be tested once annually for proper operation on all RGDs in use. If any safety device fails, the RGD shall be taken out of service until corrective action is performed or temporary administrative controls are established and approved in writing by the individual responsible for radiation protection.
 - (B) Testing records shall include the date test was performed, the list of safety devices tested, the survey instrument used, the calibration date, the results of the test, the name of the individual that performed the test, and any corrective actions for a failed test.
 - (C) Records of the testing shall be retained by the registrant for agency review during inspection.
 - (2) Bypassing
 - (A) No individual shall bypass a safety device unless the person has obtained approval from the individual responsible for radiation protection. Procedures for bypassing a safety device shall be incorporated into the radiation protection program by the individual responsible for radiation protection, as set forth in Rule .1601 of this Chapter, and the operating procedures as set forth in Paragraph (c) of this Rule.
 - (B) The written approval, as granted by the individual responsible for radiation protection, shall include the start and end date of approval.
 - (C) When a safety device has been bypassed, a legible sign bearing the words "SAFETY DEVICE NOT WORKING", or words having a similar meaning, shall be placed on the x-ray source housing and the control panel during the bypassing period.
- (j) An individual shall determine the tube is off, and will remain off until safe conditions have been restored, prior to an individual modifying the following:
 - (1) x-ray tube system, resulting in the removal of tube housings, covers, or shielding materials;

- (2) shutters;
- (3) collimators; or
- (4) beam stops.

History Note: Authority G.S. 104E-7(a)(2);
Eff. February 1, 1980;
Amended Eff. January 1, 1994;
Transferred and Recodified from 15A NCAC 11 .0804 Eff. February 1, 2015;
Amended Eff. October 1, 2015;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 22,
2019;
Amended Eff. November 1, 2024.