SC DEPARTMENT of ENVIRONMENTAL SERVICES

Question & Answer: Radiation Protection Program & X-Ray Facilities

1. **Question: Are there detailed checklists of items needed for an inspection?**

   Answer: Please refer to our regulatory guides for each inspection type - Regulatory Guides | South Carolina Department of Environmental Services. A checklist of items needed during an inspection is provided on the last page of each regulatory guide. Types of Regulatory Guides with inspection checklists include – B2 (Medical Facilities), B3 (Dental Facilities), B4 (Facilities Utilizing Analytical and Industrial Equipment), B9 (Veterinary), and B10 (Hospitals).

2. **Question: Are there any training resources for medical based facilities?**

   Answer: The Department does not provide any training resources. The requirements of training plans fall under S.C. Regulation 61-64, X-Rays (Title B): RHB 4.2.2 for medical facilities. Each medical facility is required by RHB 4.2.2 to ensure that all x-ray operators possess a current, valid certificate from the South Carolina Radiation Quality Standards Association (SCRQSA). An operator is defined as one who applies ionizing radiation to humans for diagnostic purposes. An operator also includes anyone who performs x-ray exam setups, patient position, and technique selection. Each operator, including physicians, is also required to receive training specific to the equipment and operating conditions of the facility.

3. **Question: Are there specific requirements or suggestions for yearly refresher training?**

   Answer: There are no specific requirements or suggestions on yearly refresher training, however the registrant shall ensure each operator has received training specific to the equipment and procedures in use at his or her facility, including machine specific training. Documentation for this training for each operator shall be made available for Departmental review. Training requirements can vary depending on the facility type.

4. **Question: Please clarify the difference between calibration testing and physics testing done by a licensed physicist.**

   Answer: For Medical Equipment covered in Part V of S.C. Regulation R.61-64, the term used is Equipment Performance Testing and the minimum criteria for testing are outlined in Part V, Appendix F.

5. **Question: Is the Radiation Safety Officer (RSO) required to sign off on initial training? Are they also required to sign off on yearly training?**

   Answer: There is not a regulation requiring the RSO to sign off on initial or annual training.

6. **Question: In S.C. Regulation 61- 64, X-Rays (Title B): RHB 3.12. Personnel Monitoring - states personnel working with medical fluoroscopic equipment must be monitored for exposure. What is considered "working with"? Just the operators or anyone in the room when the unit is energized?**

   Answer: The Radiation Safety Officer (RSO) has the authority to make a determination which individuals are “working with” the fluoroscopy equipment and require personnel monitoring in accordance with other applicable regulations.

7. **Question: In S.C. Regulation 61-64, X-Rays (Title B): RHB 3.12.4.1.4 states that personnel working with medical fluoroscopic equipment must be monitored. Can the Radiation Safety Officer (RSO) make the determination based on exposure (dosimetry reports)? Can the RSO make the judgement on who needs to be monitored when working with fluoroscopic equipment? This is with the understanding the individual meets the 10% threshold that is mandated by the regulations to be monitored, rather than require dosimeters for all staff in the room?**

   Answer: The RSO has the authority to make determinations which individuals are “working with” the fluoroscopy equipment and require personnel monitoring in accordance with other applicable regulations.

8. **Question: Do Radiation Protection Programs (RPPs) need to be reviewed annually?**

   Answer: In S.C. Regulation 61-64, X-Rays (Title B): RHB 3.3.3 requires the facility to appoint a committee and review program content and implementation at intervals not to exceed twelve months.

9. **Question: When an X-Ray machine (CT, Fluoro, X-Ray) tube is replaced of the same output, is output testing required? Is a post installation survey required? If so, if the service engineer tests the output, does it still need tested by a physicist within 30 days?**

   Answer: Equipment Performance Testing or shielding/surveys are not required when the **TUBE ONLY** is replaced.

10. **Question: For a consulting Radiation Safety Officer (RSO), are there any onsite requirements regarding periodic visits, such as the RSO must visit the facility at least once each month or once per quarter?**

    Answer: S.C. Regulation 61-64, X-Rays (Title B): RHB 3.3 outlines authority and responsibility for the radiation protection programs and the radiation safety officer. If the RSO has placed an individual on an effective dose equivalent (EDE) badging program, the RSO or designee shall make semi-annual visits for personnel observation adherence to proper radiation safety practices.

11. **Question: We are utilizing travel/contract techs; Are we required to have competencies on file for them following an audit? They are generally only here for 12 weeks for an assignment.**

    Answer: S.C. Regulation 61-64, X-Rays (Title B): RHB 4.2.2 requires operators to have an SCRQSA certification and RHB 4.2.2.7 requires each operator to have facility specific training documented and available for Departmental review.

12. **Question: What are the Cone Beam Computed Tomography (CBCT) Systems requirements when you have multiple types of units in the operating room?**

    Answer: If a room has a current shielding plan for a multi-modality c-arm or mobile CT system, an additional shielding plan is not required for the use of other multi-modality c-arm or mobile CT systems in that room. Please note that multi-modality c-arms and mobile CT systems (including CBCT) must be approved for use in SC. Facilities must follow the guidelines of use stated in the unit's approval letter and use requirements memorandum.

13. **Question: Do licenses have to be displayed or can they be easily accessible?**

    Answer: Please reference S.C. Regulation 61-64, X-Rays (Title B): RHB 4.2.2.6 which states - The registrants shall display each operator's current certificate in public view, not obstructed by any barrier, equipment, or other object. The registrant may also post a notice to the public that South Carolina Radiation Quality Standards Association certificates are available for review upon request.

14. **Question: How do you rename or change the name of a piece of equipment?**

    Answer: Changes to equipment can be made on DES 0819 Registration and/or Deletion of X-Ray Producing Machines. This form can be emailed directly to xrayregistration@des.sc.gov or mailed to SC Department of Environmental Services - Radiation Protection Program, 2600 Bull Street, Columbia, SC 29201.

15. **Question: How do you get replacement stickers for equipment?**

    Answer: A request for replacement stickers can be made by contacting the Department at (803) 545-4400 or by email xrayregistration@des.sc.gov. The request should include facility name, registration number and model number/serial number for the requested units.

16. **Question: I do not have access to ePermitting. Is this something I should get training on before I make a submission?**

    Answer: The Radiation Protection Program's Electronic Products Division has not opened ePermitting to the public. The Program will provide on-line training prior to the implementation externally and each facility will be provided with an "invite" letter.

17. **Question: How do facilities use ePermitting to submit shielding applications and equipment registrations?**

    Answer: The Radiation Protection Program's Electronic Products Division has not opened ePermitting to the public. The Program will provide on-line training prior to the implementation externally and each facility will be provided with an "invite" letter.

18. **Question: How do we update permits between billing cycles?**

    Answer: For updates between billing cycles, you may use the Report of Change Form or the Registration/Deletion of X-Ray Producing Equipment form to report changes of electronically produced equipment/facilities to SCDES.

19. **Question: Will radioactive materials be included in ePermitting?**

    Answer: The Radioactive Materials Division will be utilizing ePermitting for billing purposes only.

20. **Question: What forms are needed when replacing an existing unit?**

    Answer: Please refer to S.C. Regulation 61-64, X-Rays (Title B): RHB 4.4.1 and 4.4.2 in Regulatory Guide B6 (Shielding Plans) - Regulatory Guides | South Carolina Department of Environmental Services. Specific forms can be found here - X-Ray Forms | South Carolina Department of Environmental Services.

21. **Question: How long are the requirements to keep previous records of maintenance and employee papers?**

    Answer:

    a. Records of surveys, tests, equipment performance tests, maintenance, and modifications performed on the x-ray system(s), with the names of persons who performed such services shall be maintained for five (5) years; until the next Department inspection; or until the registrant no longer possesses the equipment.
    b. Records of individual monitoring reports must be retained until the Department terminates each pertinent registration.
    c. Records of protective equipment and apparel shall be kept for two (2) years, or until the next Department inspection, whichever is later.

d. X-ray log records shall be maintained for two (2) years or until the next Department inspection, whichever is later.
e. The repeat analysis records shall be maintained for two (2) years or until the next Department inspection, whichever is later.
f. Records of manual processing, processor maintenance, cassette cleaning, and adherence to digital imaging acquisition systems shall be kept for at least two (2) years or until the next Department inspection, whichever is later.