

Charleston County Coroner's Office Policy #50

Title: X-Ray Machine

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Effective Date: 05/17/2019

Reviewed: 9/9/21, 1/30/2024

Authorized By: Bobbi Jo O'Neal, Coroner

50.1 POLICY

The Coroner's Office owns a high-frequency portable X-ray machine, MinXray, which will only be operated by the contracted forensic pathologists, anthropologists, and odontologists at the discretion of the case Deputy, the Chief Deputy, or the Coroner to facilitate thorough clinical examinations. The unit shall be maintained, registered, and used in accordance with DHEC regulations 61-64 under the Bureau of Radiological Health (Appendix 'B'- DHEC Regulation), MinXray HF100H+ High-Frequency Portable X-ray Unit Installation and Operating Instruction Manual and the X-ray Flat Panel Detectors CareView 1500Cw Operation Manual.

50.2 PROCEDURE

1. It is recommended that the unit shall only be operated by a radiologic technologist possessing a current, valid certificate from the South Carolina Radiation Quality Standards Association or a licensed physician employed or contracted by the Charleston County Coroner's Office. The unit must be adequately secured when not in use at the Coroner's Office to prevent unauthorized use or theft.
2. Pregnant Workers: If the operator is pregnant, she is not permitted to use the X-ray machine.

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3. Protection: Protective equipment and apparel should be effective and not impaired. Lead aprons are to be worn by the operator(s). Inspections should be recorded and documented.
4. Pregnant Patients: To comply with DHEC regulations, this policy must state that no extra precautions are required when taking radiographs of remains belonging to a pregnant cadaver.
5. Personnel monitoring: The operator shall wear a monitor badge at the discretion of the physician per the variance approval letter. Badges are not required per the DHEC variance letter when the X-ray machine is used.
6. Training new employees: Only the employed or contracted forensic physicians may use the device and must complete the training program supplied by the manufacturer to include watching the radiation safety training video and reviewing the operator manual prior to using the X-ray unit. The training shall be documented per DHEC regulations and maintained in the Coroner's Office.
7. Methods of quality assurance: Quality assurance of radiographs produced by the unit shall be checked by the physicians at the time they are produced. Any unsatisfactory radiographs which are blurry, faded, obscured, etc., shall be re-taken. Any further problems shall be addressed with the manufacturer/vendor.
8. Patient Holding: To produce radiographs that are directly comparable to forensic cases, remains are radiographed using the same techniques as those employed in living patients. In cases where this technique is inadequate, the film may be secured to the subject using items such as tape, rubber bands, wax, and impression material. The radiograph operator is not employed to hold the film/sensor in position.
9. Lead Aprons: Lead aprons and thyroid collars shall be checked at least annually for cracks, defects and holes that could compromise the radiation protection it provides. This

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testing shall be documented and maintained in the Coroner's Office. Records of this testing shall be kept for two years, or until the next DHEC inspection, whichever is later.

10. Performance Testing: A log depicting the use of the unit shall be maintained at the Coroner's Office. The unit shall have an Equipment Performance Test done annually (every July) in accordance with DHEC regulations 61-64, Appendix F, Title B Regulations.

11. The vendor is:

MinXray, INC.

3611 Commercial Avenue

Northbrook, Illinois 60062

847-564-0323

www.minxray.com

12. Notice to Employees: The standards for protection against radiation "Notice to Employees" shall be posted in a common employee area for their review and consultation.

13. Maintaining Reports: Per DHEC all reports, and documentation must be maintained for five (5) years.