Continuing Education Requirements for Operators of X-ray Equipment in Medical Dental Facilities

The Department of Environmental Protection’s (DEP) Bureau of Radiation Protection (BRP) prepared this fact sheet to explain the technical guidance document titled “Medical X-ray Procedures Operator Training Guide” (document number 291-4200-001). The intent of the guidance is to help registrants understand the regulations in 25 Pa. Code, Section 221.11 (Registrant Responsibilities) and to promote awareness of the importance of continuing education with respect to radiation safety. The guidance document applies to all individuals (dentists, hygienists, assistants, and technologists) who operate X-ray equipment. The registrant shall ensure that initial instruction and continuing education training have been conducted in the topics listed in Chapter 221, Appendix A, Determination of Competence. Appendix A is included on the reverse side of this fact sheet.

Continuing Education

When an operator is initially and adequately instructed, it is necessary that he or she has continuing education training in the key areas of radiation safety, biological effects of radiation, quality assurance, and quality control to ensure continuing competence. The operation of X-ray systems in dental facilities is considered a low-risk procedure. The technical guidance advises all operators of dental X-ray equipment to demonstrate either two contact hours or four continuing education units every four years to satisfy the requirement in 25 Pa. Code, Section 221.11. If an operator of X-ray equipment is already required to take continuing education courses for maintenance of a license or certification, the course hours or units may be applied toward BRP’s requirement as long as the radiation safety topics are addressed. NOTE: BRP’s continuing education requirement is not related to an operator’s license or certification and does not affect that process. Some courses may satisfy BRP’s requirement, but not necessarily satisfy the Department of State’s or a board’s certification requirement. Check with the appropriate organization for verification.

List of Resources

The technical guidance document includes a supplemental page of resources and can be found on BRP’s webpage at www.dep.pa.gov. The list is not all inclusive nor does it imply any solicitation or endorsement by BRP of any one resource. Additional resources may be added in the future. Periodic review of the list for updated information is recommended. Courses can be taken on-line, in the classroom, or through in-service training. The course content must address the radiation safety topics in Appendix A to be acceptable.

A refresher course in radiation safety for all individuals who operate medical X-ray equipment, other than accelerators, can be found at www.dep.pa.gov.

Documentation

The registrant must retain training documents at the facility for each operator of X-ray equipment. The documents will be reviewed for completion and to verify competence during a regularly scheduled BRP routine inspection.
APPENDIX A
DETERMINATION OF COMPETENCE

The registrant shall ensure that individuals who operate diagnostic X-ray equipment have received training on the subjects listed in this appendix. The individual shall be trained and competent in the general operation of the X-ray equipment, and in the following subject areas, as applicable to the procedures performed and the specific equipment utilized:

1. Basic properties of radiation
2. Units of measurement
3. Sources of radiation exposure
4. Methods of radiation protection
5. Biological effects of radiation exposure
6. X-ray equipment
7. Image recording and processing
8. Patient exposure and positioning
9. Procedures
10. Quality assurance
11. Regulations

For further assistance, contact the DEP Regional Office applicable to the facility location as shown below:

<table>
<thead>
<tr>
<th>Region</th>
<th>Phone</th>
<th>Region Headquarters</th>
<th>Counties Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>717-705-4700</td>
<td>909 Elmerton Ave. Harrisburg, PA 17110</td>
<td>Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York, Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, and Union</td>
</tr>
<tr>
<td>West</td>
<td>412-442-4000</td>
<td>400 Waterfront Drive Pittsburgh, PA 15222-4745</td>
<td>Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland, Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, and Warren</td>
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References
For more information, visit www.dep.pa.gov or call the Bureau of Radiation Protection at 717-787-3720.