

## RADIATION SAFETY PROCEDURES FOR DENTAL OFFICES

1. The radiation exposure to the patient shall be the minimum exposure required to produce images of good diagnostic quality.
2. The speed of film or film-screen combinations shall be the fastest speed consistent with diagnostic objectives of the radioactive examination.
3. Lead aprons should be available for staff/patient use.
4. If auxiliary support is required for the patient of film:
  - a. Mechanical holding devices shall be used when the technique permits
  - b. No individual shall be used routinely to hold a patient
  - c. If a human holder is required, the holder shall be positioned such that no part of the body will be struck by the primary x-ray beam unless protected by at least 0.5 millimeter lead equivalent, and shall be protected from the direct scatter radiation by a protective apron of not less than 0.25 millimeter lead equivalent.
5. Standard operating procedure is for the operator of the x-ray unit to remain in the corridor, outside of the x-ray room, for the duration of the x-ray exposure.
6. During a standard radiographic procedure, no one shall remain in the room except the patient receiving the exposure.
7. For radiographic equipment that is not contained in a well enclosed area, patient and staff traffic should be restricted during the operation of the equipment. This would include panoramic systems in hallways, alcoves and office areas.
8. Personnel monitoring devices will be issued to any individual who is likely to receive more than 10% of the permissible dose limit set forth in the Virginia Rules and Regulations for restricted areas. See 10 CFR 20.1502 for additional information.
9. When protective clothing or devices are worn on portions of the body and a monitoring device is required, at least one such monitoring device shall be utilized as follows:
  - a. When an apron is worn and only one monitoring device is in use, the device shall be worn at the collar outside the apron.
  - b. The dose to the whole body or the maximum dose attributed to the most critical organ shall be recorded. If more than one device is used, each dose shall be recorded and identified with the area where the device was worn on the body.
  - c. The position of the body at which a particular monitoring device is worn and used **SHALL NOT** be changed during any calendar quarter.
  - d. Exposing of personnel monitoring device to deceptively indicate a dose delivered to an individual is prohibited.
10. Individuals shall not be exposed to the primary x-ray beam except for healing arts purposes. This specifically prohibits deliberate exposure of an individual for training, demonstration or other non-healing arts purposes.
11. The operator of hand-held radiographic devices should ensure there are no bystanders within a six foot radius of the patient being examined. Further, hand-held units should not be used in hallways or waiting rooms.
12. Operators of dental hand-held x-ray devices must wear protective lead or lead equivalent shielding while operating the unit.

Further procedures for operating the x-ray equipment at this facility are as follows:

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