

	North Carolina Department of Environment and Natural Resources Division of Environmental Health RADIATION PROTECTION SECTION Radiology Compliance Branch	Page(s)		
		1	of	2

REQUIREMENTS FOR USE OF HAND-HELD DENTAL X-RAY DEVICES IN NC

North Carolina Radiation Protection has reviewed and determined that hand held dental x-ray units can be used with the following limitations on use:

- ❖ These units shall be used only for human dental intra-oral use or dental forensics. All other uses must be reviewed and approved by the NC Radiation Protection Section (NCRPS) prior to use.
- ❖ The unit must be used **with a tripod.**
- ❖ According to 15A NCAC 11 .0607 (e)(2)(C), all units must be manufactured and sold with a cord that is permanently attached to allow the operator to stand at least 6 feet away from the patient and out of the path of the useful beam.
- ❖ All operators must obtain a training certificate from the equipment manufacturer and it must be available for review during inspection.
- ❖ A **Written Radiation Safety Program** must be submitted with your application for registration. The current **Written Radiation Safety Program Outline** for dental facilities with hand held x-ray units is located on the NCRPS website at www.ncradiation.net.
- ❖ Professional staff and ancillary personnel shall be protected from the direct scatter radiation by protective aprons or whole body protective barriers of not less than 0.25 mm lead equivalent.
- ❖ The registrant shall monitor exposure to radiation or supply personnel monitoring badges to demonstrate compliance with the Rules.
- ❖ The registrant must demonstrate the ALARA philosophy.
- ❖ It is recommended that the shield on the unit be permanently affixed for use.
- ❖ **Security** should be assured to prevent theft and operation by an unauthorized user. The registrant is responsible and accountable for the security of this unit and that accidental exposure in transport does not occur. When not in use, the unit should be stored in a secured location.
- ❖ Manufacturer recommendations for service and surveys should be followed. If the unit needs repair, is damaged or dropped, documentation of service and surveys shall be available for inspections.
- ❖ If the unit is used in one room, it shall be considered a stationary unit. All rules for a stationary unit shall apply, including the shielding design/ plan review, acknowledgement letter, and exposure switch permanently mounted in a

protected area. The protective area referenced here **is not the protective shield on the unit.** (Refer to New Installation Reference Guide.)

- ❖ If the unit is transferred from one location to another, it shall be considered a mobile unit and shall meet all the requirements of a mobile unit. Supporting documentation must be supplied to NCRPS and available at the time of inspection. (Refer to the Mobile Reference Guide.)
- ❖ It is recommended that the repeat analysis be performed and documented on a quarterly basis.
- ❖ At a minimum, F Speed Film or a digital sensor should be used