License Conditions

PANORAMIC X-Ray Equipment

Following the International and/or Canadian “Radiation Protection in Dentistry Recommended Safety Procedures for Dental E-Ray Equipment (Safety Code 30), the Licensee will comply with the following conditions:

1. The operator shall keep a distance of at least three meters from the x-ray tube during radiography.

2. X-ray tube voltage, irradiation time and termination of exposure.
   (a) Panoramic radiography shall be done with an X-ray tube voltage and/or current recommended by the unit’s manufacturer.
   (b) The presentable irradiation time is fixed by the time required to complete one full excursion of the assembly.
   (c) Exposure shall terminate when hand switch is released.

3. Leakage radiation shall be less than 100 mR in one hour at one meter from the tube.

4. Radiation leakage outside of the shielded room shall not exceed 7.5μSv/hr.

5. Manual film processing is not recommended. If used, the darkroom shall be well designed and a timer shall be used. Sight developing shall not be done.

6. A position device shall be provided to limit a reasonable focal spot to skin distance.

7. The radiation beam shall be collimated such that the size of the beam does not exceed any dimension of the scanning slit by more than 1/2 of that dimension or by more than 2%, whichever is less.

8. The patient shall be provided with a lead-rubber shielding apron.

9. Radiation dose to patient and cassette carrier interlocked.
   a) The radiation dose to the patient shall be within the range acceptable by the film/screen combination used.
   b) The cassette carrier shall be interlocked such that irradiation is not possible, unless a film cassette is in the carrier.

    a) Brakes shall lock system in a desirable position.
    b) All moving parts shall run smoothly.
    c) Tension cables shall be tight.
    d) Limit stops shall work correctly.

11. Image quality shall be of an acceptable standard. The dentition and related structures shall be positioned so that they fall within the image layer.

12. Operator and personnel doses shall fall within the annual recommended dose limits stated in the current international regulations.

13. Radiation protection inspection will be done bi-annually to verify that:
    a) The dental x-ray equipment functions properly.
    b) Equipment is installed in a safe environment and is used in a way that provides maximum radiation safety for patients and operators.

Environmental Health – Occupational Safety & Health
Metro Building, 6 Hermitage Road. Devonshire FL01
P.O. Box HM 1195. Hamilton HM EX, Bermuda

Phone (+ 41) 278-5333
Fax: 232-1941
Email: osho@gov.bm