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GOVERNMENT OF BERMUDA  
Ministry of Health, Seniors and Environment  
Department of Health

**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.
10. Brakes, Moving Parts, Tension Cables, Limit Stops.
  - 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.

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