



**DEPARTMENT OF HEALTH  
DIRECTORATE: RADIATION CONTROL**



**GUIDELINES  
DENTAL RADIOGRAPHY**

**A. RADIATION WORKERS**

1. Dental radiation examinations may only be performed by registered:
  - dentists,
  - radiographers,
  - dental therapists, and
  - oral hygienists
  
2. Operators of dental units are conditionally exempted from personal monitoring (wearing of TLD's – Thermo Luminescent Dosimeters).
  
3. Monitoring of workers
  - 3.1 Under the following circumstances, operators are required to wear a personal dosimeter (TLD) when:
    - (i) the position of the worker during exposures is less than 2 metres
    - (ii) the weekly workload exceeds:
      - 100 intra-oral or
      - 50 pan/ceph exposures or
      - pro-rata combination of each type of examination (table 1)

Table 1

Examination	Exposures					
	Intra-oral and	100	80	60	40	20
Pan/ceph	0	10	20	30	40	50

- 3.2 The licence holder is responsible to determine whether TLD's must be issued to the persons performing dental examinations.
  
- 3.3 The licence holder must keep a register of the monthly reports furnished by the SABS for such radiation workers. This register must be kept for 10 years from the last date of entry.

**B. DENTAL X-RAY UNITS**

1. An appropriate exposure technique chart (manual and automatic exposures) must be displayed near the control panel of the x-ray unit(s).
2. The exposure chart(s) must be established after optimising the film- / image processing procedure so as to keep the dose to the patient to the lowest practical value, consistent with the clinical objectives.

**C. PATIENT PROTECTION**

1. The compulsory use of protection devices such as lead rubber aprons and thyroid shields for protection of patients during dental examinations is no longer a requirement.
2. Adequate precaution should, however, be taken to reduce radiation when examinations are performed on women of childbearing capacity and children.

**D. PATIENT RECORDS**

1. A record / register must be kept of all patients undergoing x-ray examinations. The record / register must be preserved for 5 years containing the following information:
  - surname, name, date of birth/age and sex
  - date of examination
  - brief clinical indication of the examination
  - type of examination
  - number of exposures (repeat exposures included)
  - fluoroscopy time (if applicable)
  - brief statement of the diagnostic information obtained from the examination

<b>Pretoria</b>	<b>Durban</b>	<b>Bellville</b>
Radiation Control PO Box 977 Pretoria 0001	Radiation Control PO Box 4301 Durban 4000	Radiation Control Private Bag X62 Bellville 7535
<b>Tel No:</b> 012-395 9121/2	<b>Tel No:</b> 031-307 2111	<b>Tel No:</b> 021-948 6162
<b>Fax No:</b> 012-395 9125	<b>Fax No:</b> 031-307 6099	<b>Fax No:</b> 021-946 1589

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