

**4732.0880 INTRAORAL DENTAL RADIOGRAPHIC SYSTEMS.**

Subpart 1. **Applicability.** This part applies to intraoral dental radiographic systems. The dental intraoral x-ray systems must meet the requirements of:

- A. nationally recognized standards such as Code of Federal Regulations, title 21, sections 1020.31 to 1020.33;
- B. the manufacturer's specification; or
- C. part 4732.1100.

Subp. 2. **Safety controls.** The registrant must ensure that the safety controls in this subpart are followed.

- A. Intraoral film holders and bite blocks must be used except when endodontic procedures do not permit.
- B. Film must not be routinely held by hand.
- C. The tube housing and the position-indicating device must not be hand-held during an exposure and must be stable before the exposure is initiated and during the exposure.
- D. The exposure at the end of the cone for a posterior bitewing technique must not exceed the values listed in the table below:

kVp	"D" Speed Film ESE (milliroentgens)	"E," D/E, or E+ Speed Film ESE (milliroentgens)
50	425 - 575	220 - 320
55	350 - 500	190 - 270
60	310 - 440	165 - 230
65	270 - 400	140 - 200
70	240 - 350	120 - 170
75	170 - 260	100 - 140
80	150 - 230	90 - 120
85	130 - 200	80 - 105
90	120 - 180	70 - 90
95	110 - 160	60 - 80
100	100 - 140	50 - 70

(1) exposures are specified as free-in-air exposures without backscatter; and

(2) the indicated kVp is often significantly different from the actual kVp. The kVp must be tested at the time the output per film is measured to determine the correct exposure range to be applied.

E. The operator of the radiographic equipment must be protected and able to view the patient during the taking of any radiographs.

Subp. 3. **Beam quality half-value layer.** The requirements for half-value layer found in part 4732.0800, subpart 6, must be met.

Subp. 4. **Digital radiography.** In addition to the requirements of this part, the exposure at the end of the cone of digital dental radiographic equipment must not exceed 120 mR for a posterior bitewing.

Subp. 5. **Records.** Dental facilities must maintain records according to part 4732.0330 until the inspection by the commissioner.

**Statutory Authority:** *MS s 144.12*

**History:** *32 SR 777*

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