Standards for Dental Facilities (2025)

In recognition of the previous inspection programme under the BCDA, XRAA maintains the following standards for the duration of 2025. In 2026, XRAA will modify standards according to the 2022 version of Health Canada Safety Code 30.

Inspection Program

Facilities must have an x-ray inspection on all x-ray equipment performed within the past five calendar years. These reports must be available for review.

Radiation Shielding Design

1. Each Cone-Beam Computed Tomography (CBCT) unit must have a radiation shielding design ("shielding design") performed by a Qualified Medical Physicist (QMP) as defined by this standard. The shielding design must be specific to the facility and device. The shielding design must outline the conditions under which radiation exposure to staff and members of the public is within regulatory limits. This must include stated or illustrated assumptions regarding the workload (mA, weekly number of patients), device positioning, peak tube potential (kVp), the fractional duration of use that the primary beam is directed towards the barrier, and the fractional occupancy of surrounding areas. The unit must be positioned such that an operator is able to take exposures only when there are no people in the entryway to the room it is housed in. The shielding design may specify lead shielding or other protective barriers required to meet regulatory exposure limits. The facility must adhere to the conditions specified in the shielding design whenever the x-ray device is in operation.
2. Facilities may elect to have a shielding design for other x-ray equipment with the same requirements as above.

Personnel Dosimetry

1. Any facility having installed a CBCT prior to June 1, 2025 must have issued all staff a dosimetry badge for a period of no less than a year (365 days) following first use. Facilities that have issued dosimetry badges may discontinue use following the 1-year period if they are satisfied that no staff member will reach 1 mSv of dose per year. Facilities should re-assess a dosimetry program if the patient workload significantly increases.
2. Other dental facilities are not required to maintain use of dosimetry badges unless a staff member may absorb at least 1 mSv of dose per year.

Radiation Safety Practices

1. The Owner or a delegated staff member must be aware of their responsibilities for radiation safety.
2. Only qualified persons must operate dental equipment.
3. Practice layout and construction should be designed to prevent unnecessary exposure to members of the public.
4. No more than one radiographic examination may be carried out at the same time in any room.
5. Only essential persons may remain in the room during an x-ray examination.
6. Patient dose should be in the proper range for the imaging system in use.
7. A technique chart should be available for use for each x-ray unit.
8. The facility should have a policy for pregnant staff.