

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

Gendex: Model GXCB-500HD

Table 3A

Computed Tomography QC Requirements

Item	Required Test or Procedure	Frequency	Substitute Test or Procedure	Standard
1	Equipment Function "Indicators, Mechanical & other Safety Checks	Daily	Operator's Manual Chapter 2 Pages 2-1 to 2-11; Chapter 14 Pages 14-13 to 14-15; GXCB-500HD Daily Equipment Function Test (Appendix A)	Must work properly
2	Film Processing QC Testing	None	None, not applicable	None, not applicable
3	CT Number for Water	Daily	Operator's Manual Chapter 12, Pages 12-6 to 12-12 (Appendix C)	Expected Measured Values for Water: -70 to 70 HU
4	Field Uniformity	Daily	Operator's Manual Chapter 12, Pages 12-12 & 12-13 (Appendix C)	Subtract each Mean Value from the Mean Value of the Center ROI < 90 HU
5	Laser Film Printer QC	None	None, not applicable	None, not applicable
6	Low Contrast Resolution	Initial & Annually	QA test to be performed using appropriate Low Contrast Phantom. Low Contrast Phantom is not supplied by Gendex	To be established by medical Physicist*
7	High Contrast Resolution	Initial & Annually	Operator's Manual Chapter 12, Pages 12-4 & 12-5 (Appendix C)	Verify definition present within line pairs 12, 13 and 14.
8	Noise	Initial & Annually	Operator's Manual Chapter 12 Pages 12-9 to 12-12 (Appendix C)	Water: Range = -70 to 70 HU Air Range = -930 to -1000 HU
9	Scan Localization Light Accuracy	Initial & Annually	Operator's Manual Chapter 11 Calibration, Pages 11-1 to 11-7 (Appendix B)	Laser beams must penetrate through the phantom crosshair slits and appear on the receptor panel. Also, check to ensure that all beads are intact on the BB Phantom.
10	Medical Physicist's QC Survey	Initial & Annually	Same as alternate Dental CBCT	NJAC 7:28-22.10
11	Medical Physicist's Quality Assurance Program Review	Initial & Annually	Same as alternate Dental CBCT	NJAC 7:28-22.4(a)7

*Where no performance standard is identified or expressed by the manufacturer, the medical physicist shall establish the standard for the facility's CBCT unit with justification