

Manufacturer's Recommendations for Alternate Dental CBCT QA Program
Imaging Sciences International: Model I-CAT 17-19
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 Safety items Pages 2-1 to 2-18; (Appendix D) Operator's Manual Chapter 14 Preventative Maintenance Schedule Pages 14-13 to 14-15 (Appendix E)	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 QA Water Phantom Test Pages 12-9 to 12-12 (Appendix C)	Expected Values Water= 0(-70 to 70) HU
4	Field Uniformity	Daily	Operator's Manual Chapter 12 Uniformity Test Pages 12-13 & 12-14 (Appendix C)	Subtract each mean value from the mean value of the center of the ROI. If the difference is greater than 90, make sure phantom is correctly centered in FOV and re-measure. If the difference is still greater than 90, call technical support.
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 provided by Imaging Sciences International.	*To be established by Medical Physicist
7	High Contrast Resolution	Initial & Annually	Operator's Manual Chapter 12 Line Pair Evaluation Pages 12-4 & 12-5 (Appendix C)	Verify the definition is present within line pairs of 10, 11 and 12.
8	Noise	Initial & Annually	Operator's Manual Chapter 12 Noise Level Test Page 12-12 (Appendix C)	Expected Values Water= 0(-70 to 70) HU Air = -1000(-50 to +50) HU
9	Scan Localization Light Accuracy	Initial & Annually	Operator's Manual Chapter 11 Geometry Calibration Pages 11-4 to 11-7. (Appendix A)	Ensure the following is displayed: Landscape Scan 24 Beads detected Portrait Scan 20 Beads detected

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 manufacture, the medical physicist shall establish the standard for the facility's CBCT unit with justification.