

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

PreXion3D Explorer & Explorer EX

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	PreXion3D Explorer EX Operation Manual Introduction i.3 Symbols and Notation Pages: i-3 to i-9 (Appendix A)	Must work properly
2	Film Processing QC Testing	Daily	None – Not Applicable	None – Not Applicable
3	CT Number for Water	Daily	PreXion3D Explorer/Explorer EX Image Quality Assurance Procedure 2. Image quality assurance Procedure 2.1 Outline of Image QA for PreXion3D Explorer/Explorer EX CT number of water Pages: 2, 4 & 5 (Appendix B)	Upper Limit 100 Lower Limit -100
4	Field Uniformity	Daily	PreXion3D Explorer/Explorer EX Image Quality Assurance Procedure 2. Image quality assurance Procedure 2.1 Outline of Image QA for PreXion3D Explorer/Explorer EX Uniformity of the Image Pages: 2 & 6 (Appendix B)	Standard Deviation (SDev): Upper Limit 70
5	Laser Film Printer QC	Weekly	None – Not Applicable	None – Not Applicable
6	Low Contrast Resolution	Initial & Annually	PreXion3D Explorer/Explorer EX Image Quality Assurance Procedure 2. Image quality assurance Procedure 2.1 Outline of Image QA for PreXion3D Explorer/Explorer EX Low contrast resolution Pages: 2, 7 & 8 (Appendix B)	Contrast-to-Noise Ratio (CNR): Lower Limit 20
7	High Contrast Resolution	Initial & Annually	PreXion3D Explorer/Explorer EX Image Quality Assurance Procedure 2. Image quality assurance Procedure	Upper Limit 0.8 mm

			2.1 Outline of Image QA for PreXion3D Explorer/Explorer EX High contrast resolution Pages: 2 & 9 (Appendix B)	
8	Noise	Initial & Annually	PreXion3D Explorer/Explorer EX Image Quality Assurance Procedure 2. Image quality assurance Procedure 2.1 Outline of Image QA for PreXion3D Explorer/Explorer EX Uniformity of the Image Pages: 2 & 6 (Appendix B)	Standard Deviation (SDev): Upper Limit 70
9	Scan Localization Light Accuracy	Initial & Annually	PreXion3D Explorer EX Operation Manual 3.2.6 Checking Scan Area (X-ray Scout Shot) Pages: 3-14 to 3-16 (Appendix A)	If the result after checking the display shows that the position is incorrect, adjust the patient's position again and repeat the operations from Step 6.
10	Medical Physicist's QC Survey	Initial & Annually	See N.J.A.C. 7:28-22.10(a)	N.J.A.C. 7:28-22.10(a)
11	Medical Physicist's Quality Assurance Program Review	Initial & Annually	See N.J.A.C. 7:28-22.10(a)	N.J.A.C. 7:28-22.4(a)7