

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

PreXion Model 3D Excelsior

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	PreXion 3D Excelsior 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	PreXion 3D Excelsior Operation Manual 8.2 Image quality assurance Procedure 8.2.1 Outline of Image QA for PreXion 3D Excelsior CT number of water Pages: 8-3, 8-5 & 8-6 (Appendix A)	Upper Limit 100 Lower Limit -100
4	Field Uniformity	Daily	PreXion 3D Excelsior Operation Manual 8.2 Image quality assurance Procedure 8.2.1 Outline of Image QA for PreXion 3D Excelsior Uniformity of the Image Pages: 8-3, 8-7 (Appendix A)	Standard Deviation (SDev): Upper Limit 70
5	Laser Film Printer QC	Weekly	None – Not Applicable	None – Not Applicable
6	Low Contrast Resolution	Initial & Annually	PreXion 3D Excelsior Operation Manual 8.2 Image quality assurance Procedure 8.2.1 Outline of Image QA for PreXion 3D Excelsior Low contrast resolution Pages: 8-3, 8-8 & 8-9 (Appendix A)	Contrast-to-Noise Ratio (CNR): Lower Limit 20
7	High Contrast Resolution	Initial & Annually	PreXion 3D Excelsior Operation Manual 8.2 Image quality assurance Procedure 8.2.1 Outline of Image QA for PreXion 3D Excelsior High contrast resolution Pages: 8-3, 8-10 (Appendix A)	Upper Limit 0.8 mm

8	Noise	Initial & Annually	PreXion 3D Excelsior Operation Manual 8.2 Image quality assurance Procedure 8.2.1 Outline of Image QA for PreXion 3D Excelsior Uniformity of the Image Pages: 8-3, 8-7 (Appendix A)	Standard Deviation (SDev): Upper Limit 70
9	Scan Localization Light Accuracy	Initial & Annually	PreXion 3D Excelsior Operation Manual 3.2.6 Checking Scan Area (X- ray Scout Shot) Pages: 3-15 to 3-17 (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