Manufacturer's Recommendations for Alternate Dental CBCT QA Program PreXion 3D Excelsior Table 6

Medical Physicist's Computed Tomography QC Survey

| | Descriped Test on | | | |
|------|---|-----------------------|--|---|
| Item | Required Test or Procedure | Frequency | Substitute Test or Procedure | Standard |
| 1 | Scan Increment Accuracy | Initial & Annually | None – Not Applicable | None – Not Applicable |
| 2 | 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. |
| 3 | Patient Dose (Multiple Scan Average Dose) MSAD or Computed Tomography Dose Index-CTDI | Initial & Annually | PreXion 3D Excelsior Operation Manual 7.9.1 Scan condition of each operating mode Pages: 7-16 & 7-17 (Appendix A) | See reference dose tables. Tolerance less than 50%. |
| 4 | Pre-Patient Collimation 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. |
| 5 | Contrast Scale | 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 & High contrast resolution Pages: 8-3, 8-8 to 8-10 (Appendix A) | High Contrast Resolution: Upper Limit 0.8 mm Contrast-to-Noise Ratio (CNR): Lower Limit 20 |
| 6 | CT Number for Water | Initial & Annually | 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 |
| 7 | Slice Thickness | Initial & Annually | None – Not Applicable | None – Not Applicable |

| 8 | Field Uniformity | Initial & | PreXion 3D Excelsior | Standard deviation |
|-------|------------------------|----------------|-----------------------------------|---------------------------|
| 0 | Field Chilorinity | Annually | Operation Manual | (SDev): Upper Limit 70 |
| | | Ailliually | 8.2 Image quality assurance | (SDev). Opper Limit 70 |
| | | | Procedure | |
| | | | 8.2.1 Outline of Image QA for | |
| | | | PreXion 3D Excelsior | |
| | | | | |
| | | | Uniformity of the Image | |
| | | | Pages: 8-3, 8-7 | |
| | | | (Appendix A) | |
| 9 | Low Contrast | Initial & | PreXion 3D Excelsion | Contrast to Noise Ratio |
| | Resolution | Annually | Operation Manual | (CNR): Lower Limit 20 |
| | | | 8.2 Image quality assurance | |
| | | | Procedure | |
| | | | 8.2.1 Outline of Image QA for | |
| | | | PreXion 3D Excelsior | |
| | | | Low contrast resolution | |
| | | | Dogge 9 2 9 9 9 0 0 | |
| | | | Pages: 8-3, 8-8 & 8-9 | |
| 1.0 | II: -1. C4 | T'4:-1 0 | (Appendix A) PreXion 3D Excelsior | II |
| 10 | High Contrast | Initial & | _ | Upper Limit 0.8 mm |
| | Resolution | Annually | Operation Manual | |
| | | | 8.2 Image quality assurance | |
| | | | Procedure | |
| | | | 8.2.1 Outline of Image QA for | |
| | | | PreXion 3D Excelsion | |
| | | | High contrast resolution | |
| | | | Pages: 8-3, 8-10 | |
| | | | (Appendix A) | |
| 11 | Noise | Initial & | PreXion 3D Excelsior | Standard deviation |
| | | Annually | Operation Manual | (SDev): Upper Limit 70 |
| | | | 8.2 Image quality assurance | |
| | | | Procedure | |
| | | | 8.2.1 Outline of Image QA for | |
| | | | PreXion 3D Excelsion | |
| | | | Uniformity of the Image | |
| | | | Pages: 8-3, 8-7 | |
| | | | (Appendix A) | |
| 12 | Scan Protocol Review | Initial & | See N.J.A.C. 7:28-22.10(a) | N.J.A.C. 7:28-22.10(a) |
| 12 | Scall Flowcol Review | Annually | See Iv.J.A.C. 7.20-22.10(a) | 1v.J.A.C. 7.20-22.10(a) |
| 13 | Review of Facility and | Initial & | See N.J.A.C. 7:28-22.10(a) | N.J.A.C. 7:28-22.10(a) |
| | Technologist's QC | Annually | 230 1 | 1 |
| | Tests | 111111111111 | | |
| 14 | Physicist Report and | Initial & | See N.J.A.C. 7:28-22.10(a) | N.J.A.C. 7:28-22.10(a)) |
| 1 1 7 | Recommendations | Annually | 500 11.0.11.0. 7.20 22.10(u) | 11.0.11.0. 7.20 22.10(u)) |
| | Recommendations | 2 xiiii uaii y | | |