### Manufacturer’s Recommendations for Alternate Dental CBCT QA Program

**Gendex: GXCB-500**

**Table 3A**

**Computed Tomography QC Requirements**

<table>
<thead>
<tr>
<th>Item</th>
<th>Required Test or Procedure</th>
<th>Frequency</th>
<th>Substitute Test or Procedure</th>
<th>Standard</th>
</tr>
</thead>
</table>
| 1             | Equipment Function  
*Indicators, Mechanical & other Safety Checks* | Daily             | Operator’s Manual  
Chapter 2, Pages 2-1 to 2-8;  
Chapter 14, Pages 14-13 to 14-15;  
GXCB-500 Daily Equipment Function Test (Appendix A)  | Must work properly |
| 2             | Film Processing QC Testing                                      | None              | None, not applicable  
None, not applicable                                                                 | None, not applicable |
| 3             | CT Number for Water                                            | Daily             | Operator’s Manual  
Chapter 12, Pages 12-9 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)  
Difference of Mean for Center ROI & each quadrant < 90 HU |                                                                 |
| 5             | Laser Film Printer QC                                          | None              | None, not applicable  
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)  
Expected Measured Values for Water: -70 to 70 HU  
Expected Measured Values for Air: -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.