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

**PreXion Model 3D Excelsior**

**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          | 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          |
<table>
<thead>
<tr>
<th>8</th>
<th>Noise</th>
<th>Initial &amp; Annually</th>
<th>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)</th>
<th>Standard Deviation (SDev): Upper Limit 70</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Scan Localization Light Accuracy</td>
<td>Initial &amp; Annually</td>
<td>PreXion 3D Excelsior Operation Manual 3.2.6 Checking Scan Area (X-ray Scout Shot) Pages: 3-15 to 3-17 (Appendix A)</td>
<td>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.</td>
</tr>
<tr>
<td>10</td>
<td>Medical Physicist’s QC Survey</td>
<td>Initial &amp; Annually</td>
<td>See N.J.A.C. 7:28-22.10(a) N.J.A.C. 7:28-22.10(a)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Medical Physicist’s Quality Assurance Program Review</td>
<td>Initial &amp; Annually</td>
<td>See N.J.A.C. 7:28-22.10(a) N.J.A.C. 7:28-22.4(a)7</td>
<td></td>
</tr>
</tbody>
</table>