

Equipment Performance Evaluation

Dental radiographic Unit

25 TAC §289.232(i)(7)(A)

Facility Name:	Registration No.	Date:
Address:	City:	TX Zip:
Phone:	Technician Signature:	
Service Company: Patterson Dental Supply, Inc	Service Co. Registration no.	
Survey Instrument used:	Calibrated/Intercompared date:	

<u>X-ray Unit Identification (From Control Panel)</u>			
<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Location</u>

TIMER ACCURACY									
Regulation: The accuracy of the timer shall meet the manufacturer's specifications. If the manufacturer's specifications are not obtainable, the timer accuracy shall be ± 10 percent of the indicated time with the testing performed at 0.5 second. (See 25 TAC §289.232(i)(6)(H)(i))									
Select one: <input type="checkbox"/> Manufacturers specs which are _____ OR <input type="checkbox"/> $\pm 10\%$ tolerance									
Time used for testing <input style="width: 50px;" type="text"/> (Intraoral tested at .5 sec (500msec) (30 Pulses)									
Perform four measurements <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> % <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> % <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> % <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> % deviation									

EXPOSURE REPRODUCIBILITY					
Regulation: When all technique factors are held constant, the coefficient of variation of exposures for both manual and AEC systems shall not exceed 0.05. (See 25 TAC §289.232(i)(6)(I))					
Technique factors selected: _____ mA _____ kVp _____ time					
Perform four measurements: <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; width: 40px; height: 20px;"></td></tr> </table> Coefficient of variation: <input style="width: 50px;" type="text"/> (Must not exceed .05)					

kVp TEST											
Regulation: If the registrant possesses the manufacturer's kVp specs, the radiation machine shall meet those specs. Otherwise, the measures kVp shall be accurate within ± 10 percent of the indicated setting at no less than three points over the usual operating range of the machine. (For units with fewer than three fixed kVp settings, the unit shall be checked at those settings.) (See 25 TAC §289.232(i)(6)(J))											
Select one: <input type="checkbox"/> Manufacturers specs which are _____ OR <input type="checkbox"/> $\pm 10\%$ tolerance											
((Measured kVp – Indicated kVp) ÷ Indicated kVp) x 100 = % of Deviation											
Indicated kVp	<table style="width: 100%;"> <tr> <td style="width: 33%; padding: 5px;">Measured kVp</td> <td style="width: 33%; padding: 5px;">Deviation %</td> </tr> <tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr> <tr><td style="border: 1px solid black; height: 20px;"></td><td style="border: 1px solid black; height: 20px;"></td></tr> </table>	Measured kVp	Deviation %								
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Entrance Exposure (EE)			
Regulation: The in-air exposure limits for an average adult intraoral bite wing examination shall not exceed 450 mR for 60 kVp and above; 600 mR for less than 60 kVp. (See 25 TAC §289.232(i)(6)(M))			
Technique factors, for intraoral bite wing examination only, selected: kVp _____ mA(s) _____ time _____			
Source to Skin Distance (SSD) _____ Source to Detector Distance (SDD) _____			
Tip of cone is positioned within 1/2 inch or less from surface of instrument housing or detector?			
Direct Measurement.			
<table style="width: 100%; border: 1px solid black;"> <tr> <td style="width: 50%; padding: 10px; font-size: 1.2em;">EE:</td> <td style="width: 50%; padding: 10px; font-size: 1.2em;">mR</td> </tr> </table>		EE:	mR
EE:	mR		

Data entry page (optional)

Settings

Time set

kVp set 1 2 3 4

mA set

(Select Microsoft print to PDF)

Measured

kVp Dose Time

1

2

3

4

Texas state class found on registration certificates:

Services - 575 (Patterson)

Dental - 886

Veterinary - 571

Medical - 576 - EPE must be done by a Physicist

Medical CT - 567 - EPE must be done by a Physicist

****Check on this if in a facility that may be a Medical class****