



**RADIOLOGICAL HEALTH PROGRAM**

**VETERINARY STATIONARY RADIATION MACHINE PREVENTIVE MAINTENANCE REPORT**

<b>FACILITY NAME:</b>		<b>FACILITY CONTACT NAME:</b>		<b>CONTACT TELEPHONE NO.:</b>	
<b>FACILITY REGISTRATION NO.:</b> □□-□□□□		<b>Service Provider Meter Manufacturer:</b>		<b>REGISTERED SERVICE PROVIDER NAME:</b>	
<b>MDE MACHINE NO. AND SUFFIX:</b> □□□□□/□		<b>Meter Used – Model:</b>		<b>Service Provider Registration Number:</b>	
<b>Component Use:</b> □□		<b>Model Number:</b>		<b>NAME OF SERVICE PROVIDER:</b>	
<b>Machine Manufacturer:</b>		<b>Calibration Date:</b>		<b>DATE OF SERVICE:</b>	
<b>Facility-Designated Room Number:</b>		<b>Note any corrective services provided:</b>		<b>Date Facility Owner Made Aware of Service Findings:</b>	
<b>Tube Serial Number:</b>				<b>Date Corrective Action Taken:</b>	
<b>Other information on tube serviced (optional)</b>				<i>For any listed test not required by the machine manufacturer, indicate: N/A</i>	

<b>As Found Settings</b>			<b>Preventive Maintenance Data</b>				
KVP	Film Speed		PM Interval (Months)	6	12	24	36
mA			Next PM Due (Date)				
Time: _____ mSec	_____ Pulses		<b>Notes:</b>				
HVL							
Source to image distance (posted)							
Actual film size	Length	Width					

<b>TESTING</b>			<b>Item</b>	<b>Measured</b>
	<b>KVP</b>	<b>Timer</b>	X-ray field size	Length _____ in/cm Width _____ in/cm
Exp 1			Source to Image Distance	_____ inches
Exp 2				
Exp 3				
Avg				
% Diff				
Mfr. Spec				

<b>X-ray Tube Voltage</b>		<b>Minimum HVL</b>	
<b>Designed Operating Range</b>	<b>Measured Operating Potential</b>	<b>Manuf. Before June 10, 2006</b>	<b>Manuf. After June 10, 2006</b>
<b>Below 51</b>	<b>30</b>	<b>0.3</b>	<b>0.3</b>
	<b>40</b>	<b>0.4</b>	<b>0.4</b>
	<b>50</b>	<b>0.5</b>	<b>0.5</b>
<b>51 to 70</b>	<b>51</b>	<b>1.2</b>	<b>1.3</b>
	<b>60</b>	<b>1.3</b>	<b>1.5</b>
	<b>70</b>	<b>1.5</b>	<b>1.8</b>
	<b>Above 70</b>	<b>71</b>	<b>2.1</b>
	<b>80</b>	<b>2.3</b>	<b>2.9</b>
	<b>90</b>	<b>2.5</b>	<b>3.2</b>
	<b>100</b>	<b>2.7</b>	<b>3.6</b>
	<b>110</b>	<b>3.0</b>	<b>3.9</b>
	<b>120</b>	<b>3.2</b>	<b>4.3</b>
	<b>130</b>	<b>3.5</b>	<b>4.7</b>
	<b>140</b>	<b>3.8</b>	<b>5.0</b>
	<b>150</b>	<b>4.1</b>	<b>5.4</b>

<b>Linearity Test</b>			
<b>Station</b>	<b>mA</b>	<b>(mR/mAs)</b>	<b>(mR/mAs Station 1 – mR/mAs Station 2) / (mR/mAs Station 1 + mR/mAs Station 2)</b>
1			> 0.1 Difference = Fail <input type="checkbox"/>
2			≤ 0.1 Difference = Pass <input type="checkbox"/>

By physically and/or electronically signing this report, I attest that this radiation machine is operating within the specifications and guidelines provided by the manufacturer's manual and that the registrant has received a copy of this report for their records.

*Service Provider Initials [ \_\_\_\_\_ ]*

<b>Printed Name</b>	<b>Registrant Signature</b>	<b>Date</b>
<b>Printed Name</b>	<b>Service Provider Signature</b>	<b>Date</b>



**RADIOLOGICAL HEALTH PROGRAM**

**Instructions for Veterinary Stationary Radiation Machine Preventative Maintenance Report**

**General Information**

COMPLETE ONE FORM PER TUBE. Completely and legibly fill out the facility information, machine information and service provider information. Include facility room number or name as designated by the facility.

**As Found Settings**

Record the “as found” setting of the kVp, mA, time, half layer value, source to image distance and film size used.

**Preventive Maintenance Data**

Record the manufacturer’s recommended preventive maintenance schedule as indicated in the radiation machine manual. If no preventive maintenance schedule exists for the machine, a 12 month maintenance frequency should be used. Record the date of the next scheduled Preventive Maintenance.

**Timer Accuracy**

<b>For Certified Machine Tolerance-</b>	<b>For Uncertified Machine Tolerance (+/- 10%)-</b>
1. Average all exposures.	1. Average all exposures.
2. Use formula- ((Average time measured – “as found” time)/ “as found” time) X 100 = % of deviation [disregard the sign].	2. Multiply the time set by .10 to get the + or – 10% variable.
3. If the % deviation is within the manufacturer’s recommendation, the unit is in compliance.	3. Add the variable to the time set, and then subtract the variable from the time set. The two numbers establish the range.
4. Machine passes or fails with appropriate documentation.	4. If the average time measured falls between the two numbers, the machine is in compliance.

**kVp Accuracy**

<b>For Certified Machine Tolerance-</b>	<b>For Uncertified Machine Tolerance (+/- 10 %)-</b>
1. Average all exposures.	1. Average all exposures.
2. Use formula- ((Average kVp measured – “as found” kVp)/ “as found” kVp) X 100 = % of deviation [disregard the sign].	2. Multiply the kVp set by .10 to get the + or – 10% variable.
3. If the % deviation is within the manufacturer’s recommendation, the unit is in compliance.	3. Add the variable to the kVp set, and then subtract the variable from the kVp set. The two numbers establish the range.
4. Machine passes or fails with appropriate documentation.	4. If the Average kVp measured falls between the two numbers the machine is in compliance.

**Other Recommended Maintenance**

Consult machine manual and perform any recommended machine test not listed here. Enter results on reverse side.
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**Timer Reproducibility**

<b>For Certified Units:</b>	<b>For Uncertified Units:</b>
Timer: $T > 5 (T_{max} - T_{min})$	Timer: $T > 5 (T_{max} - T_{min})$
1. Use the timer data from the reverse of this form (Measured and Average).	
2. Subtract the minimum time from the maximum time (Measured values).	
3. Multiply the result by the factor of 5 as shown above.	
4. Compare to the average of the measured values for time.	
5. If the average of the measured values is greater than or equal to the multiplied result, the timer is reproducible. (PASS)	

**Field size – If x-ray beam exceeds any side of the image receptor by > 2% fail**

**SID – Measured to be within 2 inches of Indicated**



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**RADIOLOGICAL HEALTH PROGRAM**  
**MENU**

<p><b>05. CODE PROFESSION</b></p> <p>10 Hospital  11 Chiropractor  12 Dentist  13 Physician  14 Podiatrist  15 Radiologist  16 Industrial/Field Radiography  17 Veterinarian  18 State/Local Government  19 Education/Research  20 Portable/Mobile X-ray  21 Other</p> <p><b>09. COMPONENT USE</b></p> <p><b>CODE DENTAL</b></p> <p>CBCT Cone Beam Computed Tomography  CD Cephalometric  CP Cephalometric/Intra-oral Comb.  CX Pan/Ceph Combination  HH Hand-held  ID Intra-oral  XD Panorex  TD TMJ Work  OD Other Dental</p> <p><b>CODE VETERINARY</b></p> <p>VP Veterinary Portable  VS Veterinary Stationary  VD Veterinary Dental</p> <p><b>CODE MEDICAL</b></p> <p>AD Angiography/Digital  AN Angiography  BD Bone Densitometry  CA CAT Scanner  CE Ceiling Tube (Leg Studies)  CH Chest, Dedicated  CI Chiropractic  DI Diathermy  GP General Purpose  HN Head and Neck  MA Mammography  MI Magnetic Imaging  OT Other Medical  PD Podiatry  PH Portable Hand Carried  PM Portable Mobile  SR Stereotactic  TO Tomography  UR Urology  US Ultrasound</p>	<p><b>CODE DARKROOM</b></p> <p>AP Automatic Processor  DD Complete Digital Imaging  IP Insta-fix only processing  MP Manual Processing  NP No processing on-site</p> <p><b>CODE MEDICAL THERAPY</b></p> <p>AT Accelerator  CT Contact Therapy  DT Deep X-ray  ST Superficial</p> <p><b>CODE INDUS/EDUC/RESEARCH</b></p> <p>IA Accelerator  IC Cabinet Radiography  IE Electron Microscope  IF Field Radiography  IG Gauge  IN Diffraction  IO Other Indus./Educ./Research  IR Room Radiography  IS Spectrographic</p> <p><b>CODE MEDICAL FLUOROSCOPE</b></p> <p>AF Above Table Tube  BF Below Table Tube  CF C-Arm  MF Mobile Fluoroscope  UF Upright Fluoroscope  OF Other Medical Fluoroscope</p> <p><b>10. CODE MANUFACTURER</b></p> <p>00 Imagie Works  01 AS and E  02 Accuray  06 Accudex  07 Acoma  03 Agfa  08 Air Techniques  14 All Pro  04 Andrex  05 Asoma  10 Astrophysics  12 Autoclear  16 Aztech  09 Belmont  11 Bennett X-ray  13 Bowie  18 Castle  15 Continental X-ray Corp.  17 Control Screening  19 Coromex  26 de Gotzen  29 Del Medical</p>	<p><b>10. (continued)</b></p> <p>22 Dentx  30 Dynavision  31 E.G. &amp; G.  25 Elekta  20 Faxitron  21 Fischer Imaging Group  34 Fuji  23 Gendex  24 General Electric  35 Glenbrook  37 Global Marine  39 Golden  40 HCMl  41 Heimann  46 Heuft Systems Technik  27 Hewlett-Packard  28 Hitachi  38 Hologic  48 Hope  43 Instrumentarium  55 JEOL  32 J. Morita  33 Kodak  44 Konica  56 LG  47 Lorad  36 Lumix  49 Lunar  50 Midwest/Sybron  57 Min X-ray  61 Niton  42 OEC Disonics  66 PANalytical  59 Panoramic Corp.  45 Phillips  60 Planmeca  70 Progeny  72 Protec  74 Rapiscan  51 Raytheon  73 Rigaku  52 Ritter  53 S.S. White  54 Sanko  78 Sedecal  79 Seiko  58 Siemens  80 Sirona  64 Soredex  81 Spectro  68 Summit  62 Toshiba  63 Transworld  71 Trophy  65 Universal  67 Varian  82 Vet Ray, Inc.  69 Weber  83 XMA  84 X-Cel  76 Yoshida  77 Other</p>
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