PANORAL DENTAL SURVEY FORM

Regulation Number		Requirement
F.4(f)		Multiple Tubes. Where 2 or more tubes are controlled by one exposure switch, the tube which has been selected shall be clearly indicated prior to exposure. The indication shall be on both the control and on the near tube housing. Uncertified systems are exempted from the tube housing indication.
F.4(h)		Technique factors shall be indicated.
F.4(a)		The control panel shall bear a warning label.
F.6(b)(2)(ii)(a)		Operator is required to remain in a protected area during the exposure. (6 ft.)
F.6(b)(2)(ii)(c)		Means shall be provided so that the operator can view the patient during the exposure.
F.6(b)(2)(ii)(d)		The control shall provide visual indication whenever x-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.
F.6(d)		Exposure Reproducibility-Uncertified Systems. The coefficient of variation shall not exceed 0.10 when all technique factors are held constant.
F.6(g)(1)		Exposure Reproducibility-Certified Systems. The coefficient of variation shall not exceed 0.05 when all technique factors are held constant.
F.6(a)(3)		Panoral x-ray systems shall be provided with means to both size and align the x-ray field at the plane of the image receptor so that x-ray field does not extend beyond any edge of the image receptor.
F.4(e)		Beam Quality. The half-value layer of the useful beam for a given x-ray tube potential shall not be less than the values shown by the regulation

INTRAORAL DENTAL SURVEY FORM

Regulation Number		Requirement
F.4(f)		Multiple Tubes. Where 2 or more tubes are controlled by one exposure switch, the tube which has been selected shall be clearly indicated prior to exposure. The indication shall be on both the control and on the near tube housing. Uncertified systems are exempted from the tube housing indication.
F.4(h)		Technique factors shall be indicated.
F.4(a)		The control panel shall bear a warning label.
F.4(g)		The tube is adequately supported.
F.7(d)(2)(i)		Operator is required to remain in a protected area during the exposure. (6 ft.)
F.7(d)(3)		The control shall provide visual indication whenever x-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.
F.7(c)		It shall not be possible to make an exposure when the timer is set to a “zero” or “off” position. Timer Reproducibility- with a setting of 0.5 seconds or less, the average exposure period shall be greater than or equal to 5 times the maximum exposure period minus the minimum exposure period when 4 timer tests are performed. Accuracy- Except for certified systems, means shall be provided to terminate the exposure at the correct preset time interval (+/- 10%).
F.7(e)		Exposure Reproducibility- Uncertified systems. The coefficient of variation shall not exceed 0.10 when all technique factors are held constant.
F.7(h)(1)		Exposure Reproducibility- Certified systems. The coefficient of variation shall not exceed 0.05 when all technique factors are held constant.
F.7(a)		Source to Skin Distance- Intraoral x-ray systems shall be provided with a means to limit the SSD to not less than 18 cm if operable above 50 kVp or 10 cm if not operable above 50 kVp.

F.4(e)		Beam Quality- The half value layer of the useful beam for a given x-ray tube potential shall not be less than the values in F.4(a)(1)(i) or (ii). (More than 1.5 mm al if manufactured after 12/1/1980)
F.7(f)		kVp Accuracy– Except for certified systems, the true value of kVp shall not be different from the indicated value by more than ten percent (10%).
F.7(h)		Additional Requirements applicable to Certified systems only. Only diagnostic x-ray systems incorporating one or more certified components shall be required to comply with the following additional requirements as they relate to the certified components. (See Regulations for details) (1) Reproducibility – No more than a COV 0.05 greater than technique factors (2) Linearity – The average ratio of exposure to MAs product in 2 consecutive tube currents shall differ no more than 0.10 times their sum (3) Accuracy – Indicated values shall not exceed the limits specified by the manufacturer (4) Timers – Termination of exposure shall cause automatic resetting of the timer to its initial setting or zero (5) Beam Quality – Systems manufactured after 12/1/1980 shall have minimal HVL of not less than 1.5 MM of Aluminum equivalent. Systems operating above 70 KVP are subject to F.4(e)(1).

DENTAL AND VET FACILITIES SPECIFIC

Regulation Number		Requirement
D.101		Registrant maintains exposures as low as reasonably achievable.
D.201		Allowable dose levels in restricted areas are within standards.
D.502/D.1107		Each registrant shall supply appropriate personal monitoring to all occupational exposed individuals and maintain records of doses.
F.3(a)(1)(v)		Protective apparel shall be available as appropriate.
J.11(a)(2)		Registration form must be posted or available (complete a new RX-1 or a Supplemental RX-1a during inspection).
J.11(c)		Agency Form MDE 279 "Notice to Employees" must be posted.
F.3(a)(1)(ii)		A registrant must demonstrate that a dental radiation technologist employed by the registrant is adequately trained and competent to use a radiation machine by demonstrating that the technologist is certified as required under COMAR 10.44.19.07, and by conspicuously displaying that certificate as required under COMAR 10.44.19.10.
F.3(a)(1)(ix)		Procedures and other equipment designed to minimize patient and personnel exposure commensurate with the needed diagnostic information are utilized.
F.3(d)		Machine Maintenance. (1) A registrant shall maintain each radiation machine in accordance with the manufacturer's recommended maintenance specifications. (2) A registrant shall maintain documentation, in the form of logs, service tickets, or work orders, that the machine manufacturer's recommended maintenance schedule has been met.

CEPHALOMETRIC SURVEY FORM

Regulation Number		Requirement
F.3(a)(1)(iii)		Adequate technique charts shall be posted.
F.4(h)		Technique factors shall be indicated.
F.4(a)		The control panel shall bear a warning label.
F.3(a)(1)(v)&(vi)		Adequate shielding shall be provided.
F.6(b)(2)		X-ray control must be permanently mounted in a protected area.
F.6(b)(2)(ii)(d)		The control shall provide visual indication whenever x-rays are produced and a signal audible to the operator indicating the exposure has terminated.

F.4(e)		Beam Quality. The half-value layer of the useful beam for a given x-ray tube potential shall not be less than the values shown by the regulation.
F.6(a)(5)		Special Purpose Systems. The x-ray field must be contained within the borders of the image receptor –OR– centered to within 2% of the SID –AND– The x-ray field must not exceed the dimensions of the image receptor by more than 2% of the SID.
F.6(g)(4)(iv)		SID-certified. SID must be within 2% of the indicated
F.6(a)(6)		SID-uncertified. SID must be within 2 inches of the indicated.
F.6(b)(1)		It shall not be possible to make an exposure when the timer is set to "zero" or "off" position.
F.6(b)(2)(iii)		Accuracy-uncertified. The exposure shall terminate at the corrected preset time interval. The time interval must be accurate within 10% of the true value.
F.6(b)(4)		With a setting of 0.5 seconds or less, the average exposure period shall be greater or equal to 5 times the maximum exposure period minus the minimum exposure period.
F.6(d)		Exposure Reproducibility-Uncertified Systems. The coefficient of variation shall not exceed 0.10 when all technique factors are held constant.
F.6(g)(1)		Exposure Reproducibility-Certified Systems. The coefficient of variation shall not exceed 0.05 when all technique factors are held constant.

FILM PROCESSING DATA – MANUAL

Regulation Number		Requirement
F.3(b)(1)		A log book is kept of chemistry changes, checks on adequacy of replenishment, cleaning, maintenance, and other services.
F.3(b)(2)		The appropriate time temperature chart is posted near the developing tank.
F.3(b)(2)(i)		The temperature in the three section tank can be controlled between the limits of 60-80ºF.
F.3(b)(2)(ii)(a)		A thermometer is available which has an accuracy of +/- 2ºF or 1ºC.
F.3(b)(2)(ii)(b)		A timer is available which has an accuracy of +/- 10%.
F.3(b)(3)		Replenishment solution is added in accordance with the manufacturer's specifications. (Minimum requirement - complete change every 3 months.)
F.3(b)(5)		Film is not fogged in darkroom.

FILM PROCESSING DATA - AUTOMATIC

Regulation Number		Requirement
F.3(b)(1)		Record film transit time and developer temperature. Time Temperature Recommended ____ ____ Measured ____ ____ Error ____ ____
F.3(b)(3)		A log book is kept of chemistry changes, checks on adequacy of replenishment, cleaning, maintenance, and other services to preserve good quality film.
F.3(b)(4)		Preventive maintenance shall be performed on the unit, except for extended periods of non-use, on a frequency basis which is not less than that schedule recommended by the manufacturer. In the event that no schedule is available from the manufacturer, a maintenance schedule shall be established which will preserve good film quality.
F.3(b)(5)		Film is not fogged in darkroom.