RHODE ISLAND RADIATION CONTROL AGENCY

DENTAL X-RAY FACILITY INSPECTION REPORT

Inspection Report #: _____ **Registration** _____

Registrant (Name and Address):

_____

_____

_____

Registrant Contact: _____ **Phone No.:** _____

Last Inspection Date: _____

Notice of Inspection Date: _____

Inspection Date: _____

****

Inspection Type:

- ☐ Initial
- ☐ Routine
- ☐ Reactive

****

Summary of Findings &

- ☐ No Items of Noncompliance, Clear RCA-9 issued
- ☐ Noncompliance, RCA-9 issued
- ☐ Noncompliance (Appendix A)
- ☐ Action on Previous Noncompliance (Appendix B)
- ☐ RCA Action

****

Inspector: _____ _____

(signature) (date signed)

Approved By: _____ _____

(signature) (date signed)

Inspection Report #: **Registration #:** DEF-xxxx

1) FACILITY ORGANIZATION:

Facility Supervisor: _____

Radiation Protection Person: _____

Dentist(s) responsible for interpretation: _____

Number of Radiographers: _____

Individuals operating X-ray equipment possess a current State license or course certificate and are adequately instructed in the safe operating procedures of the X-ray equipment [**4.3.3(A)**]: ☐ **YES** ☐ **NO**

2) X-RAY TUBE INVENTORY:

Tube Code[1]:	**20**	**21**	**22**	**23**	**24**
Active:					
Storage:					

Total # of tubes: _____

Facility has shielding plan/evaluation conducted by a RI-registered Radiation Physics Service provider for all units in active use other than intraoral or closed-beam panoramic/cephalometric ☐ **YES** ☐ **NO** ☐ **NA**

3) OCCUPATIONAL RADIATION EXPOSURE

Personal dosimetry supplied to each individual expected to be exposed to radiation [**1.10.3(A)**] ☐ **YES** ☐ **NO**

Personal dosimetry devices exchanged at the appropriate frequency and processed by NVLAP approved and accredited processor [**1.10.3(A)**] ☐ **YES** ☐ **NO**

Personnel monitoring equipment properly worn [**1.10.3(A)**] ☐ **YES** ☐ **NO**

All personal dosimetry reports are reviewed and signed by the RSO when they are received [**1.10.3(A)**] ☐ **YES** ☐ **NO**

Appropriate declared pregnant woman procedures were implemented, and records of embryo/fetus dose were kept [**1.7.8**] ☐ **YES** ☐ **NO** ☐ **NA**

The registrant's radiation protection program incorporates considerations for keeping doses ALARA ☐ **YES** ☐ **NO**

Monitored individuals are properly presented with radiation exposure data at least annually [**2.6**] ☐ **YES** ☐ **NO**

Monitored individuals who have terminated employment were properly notified [**2.6**] ☐ **YES** ☐ **NO** ☐ **NA**

[1] **20**=Dental Intraoral; **21**= Dental Extraoral; **22**= Cephalometric; **23**=Panoramic; **24**= Cone Beam CT (CBCT)

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4) POSTING AND LABELING

Agency Form RCA-1 ["Notice to Employees"] is properly posted [**2.4(A)**]	☐	**YES**	☐	**NO**		
RCA regulations and Certificate of Registration are posted, or a notice is posted stating where these documents are located [**2.6**]	☐	**YES**	☐	**NO**		
Operating procedures (including written radiation safety procedures) are available [**2.6**]	☐	**YES**	☐	**NO**		
Statement of deficiencies posted when applicable [**2.6**]	☐	**YES**	☐	**NO**	☐	**NA**
Latex glove warning sign posted when applicable[**2.5(B)**]	☐	**YES**	☐	**NO**	☐	**NA**

5) REGISTRATION

Equipment installation or servicing were obtained only from a registered Provider of X-Ray Services [**3.3(A)**] – PXS Registration #:	☐	**YES**	☐	**NO**		
Radiation physics services were obtained from only for a registered Radiation Physics Service provider [**3.5.3**] – RPS Registration #:	☐	**YES**	☐	**NO**	☐	**NA**
Written notification was provided to the RCA before making any changes (e.g. installation of removal of x-ray systems) which would render the information contained in the Application for Registration inaccurate [**3.8**]	☐	**YES**	☐	**NO**	☐	**NA**
For new registrations or facilities with modifications subsequent to previous inspection, a floor plan, shielding specification, and equipment arrangement have been submitted to the RCA prior to construction. [**3.5.1(B)**]	☐	**YES**	☐	**NO**	☐	**NA**
For new registrations or facilities with modifications subsequent to previous inspection, the shielding plan was reviewed and evaluated by a registered Radiation Physics Service provider prior to X-Ray system use [**3.5.1(C)**] – RPS Registration #:	☐	**YES**	☐	**NO**	☐	**NA**

6) TECHNIQUE PROTOCOLS

Type and size of the image receptor combination to be used, if any **[4.3.4]**	☐	**YES**	☐	**NO**
Source to image receptor distance to be used, if any (typically present on the x-ray tube head) **[4.3.4]**	☐	**YES**	☐	**NO**
Type and location of placement of patient shielding **[4.3.6(A)(2)]**	☐	**YES**	☐	**NO**

7) MAINTENANCE RECORDS & ASSOCIATED INFORMATION

Registrant maintains the following information for each X-Ray system (in a separate file or in chronological order): [**4.3.13(A)**]

Maximum rating of technique factors (if applicable) [**4.3.13(A)(1)**]	☐ **YES**	☐ **NO**	☐ **NA**
Model and serial numbers of all major components, and users' manuals for those components **[4.3.13(A)(2)**]	☐ **YES**	☐ **NO**	
Aluminum equivalent filtration in the useful beam, including any routine variation (if applicable) **[4.3.13(A)(3)]**	☐ **YES**	☐ **NO**	
Tube rating charts and cooling curves (if applicable) [**4.3.13(A)(4)**]	☐ **YES**	☐ **NO**	☐ **NA**
Records of surveys, calibrations, maintenance & modifications performed on X-Ray systems and names of persons who performed such services [**4.3.13(A)(5)**]	☐ **YES**	☐ **NO**	
Copy of correspondence with RCA regarding each X-ray system [**4.3.13(A)(7)**]	☐ **YES**	☐ **NO**	

8) X-RAY UTILIZATION LOG

The log includes the patient's name, the type of examinations, and the dates the examinations were performed [**4.3.14(A)**]	☐ **YES**	☐ **NO**	
The log includes the name of the dentist who ordered the examination [**4.3.14(A)(1)**]	☐ **YES**	☐ **NO**	
The log includes name(s) of individual(s) who performed the examination [**4.3.14(A)(2)**]	☐ **YES**	☐ **NO**	
The log includes any deviation from the standard procedure as specified on the technique chart, including all repeat exposures [**4.3.14(A)(3)**]	☐ **YES**	☐ **NO**	
When applicable, log includes X-Ray system used [**4.3.14(A)(4)**]	☐ **YES**	☐ **NO**	☐ **NA**
If human auxiliary support is required, log includes name of the human holder [**4.3.14(A)(5)**]	☐ **YES**	☐ **NO**	☐ **NA**
X-Ray utilization logs are maintained for a minimum of 5 years following the examination or treatment of adults and 5 years past the age of maturity for children [**4.3.14(B)**]	☐ **YES**	☐ **NO**	

9) GENERAL REQUIREMENTS FOR DENTAL X-RAY

Label with the following is present on the control panel: **"WARNING: This X-Ray unit may be dangerous to patient and operator unless safe exposure factors and operating instructions and maintenance schedules are observed"** [**4.14.2(B)**] ☐ **YES** ☐ **NO**

Where ≥ 2 radiographic tubes controlled by 1 exposure switch, tube(s) selected shall be clearly indicated prior to initiation of exposure and only selected tube can be energized [**4.14.7**] ☐ **YES** ☐ **NO** ☐ **NA**

Tube housing assembly supports adjusted, so assembly remains stable during an exposure (unless tube housing movement is designed function) [**4.14.8**] ☐ **YES** ☐ **NO**

All position locking, holding, and centering devices on X-Ray system components are functioning as intended [**4.14.10**] ☐ **YES** ☐ **NO**

For X-ray equipment capable of displaying technique factors, the technique factors used during exposure are indicated before exposure begins. If automatic exposure controls used, technique factors set prior to exposure are indicated [**4.14.11(A)**] ☐ **YES** ☐ **NO**

Means provided to terminate the exposure at a preset time interval, a preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor [**4.14.13**] ☐ **YES** ☐ **NO**

The half value layer meets the requirements set forth in Tables I and/or II [**4.14.16**] ☐ **YES** ☐ **NO** ☐ **NA**

10) SPECIAL REQUIREMENTS FOR DENTAL X-RAY

Facility utilizes intraoral dental radiographic unit(s) designed to be operated as a hand-held device [**4.13(A)**] ☐ **YES** ☐ **NO**

- If **YES**, facility maintains documentation that each operator of hand-held X-ray system has completed training as specified by the manufacturer and approved by the Agency [**4.13(A)**] ☐ **YES** ☐ **NO** ☐ **NA**
- If **YES**, unit is equipped with a backscatter shield of not less than 0.25 mm lead equivalent and 15.2 cm (6 inches) in diameter that is positioned as close as practicable to the distal end of the position indication device [**4.13(A)**] ☐ **YES** ☐ **NO** ☐ **NA**
- If **YES**, facility follows protocols provided by the manufacturer, and approved by the Agency, regarding the safe operation of the unit [**4.13(A)**] ☐ **YES** ☐ **NO** ☐ **NA**
- If **YES**, unit is secured from unauthorized removal or use [**4.13(A)**] ☐ **YES** ☐ **NO** ☐ **NA**

10) SPECIAL REQUIREMENTS FOR DENTAL X-RAY (cont.)

Facility utilizes cone beam CT (CBCT) devices [**4.7.8**] ☐ **YES** ☐ **NO**

If **YES**, CBCT is only operated by an individual who has been specifically trained in its operation [**4.7.8(D)**] ☐ **YES** ☐ **NO** ☐ **NA**

11) QUALITY ASSURANCE PROGRAM

QMP performed review of Quality Assurance Program at an interval not to exceed 12 months and provided a written report ☐ **YES** ☐ **NO**

Registrant has established and maintained a quality assurance program including:

Written standard operating procedures on radiation protection are reviewed and updated annually by management [**4.10.1(A)(1)(a)**] ☐ **YES** ☐ **NO**

Employee review and written acknowledgement of standard operating procedures and policies on radiation protection [**4.10.1(A)(1)(b)**] ☐ **YES** ☐ **NO**

Documentation of minimum qualifications for dentists and X-Ray equipment operators [**4.10.1(A)(1)(c)**] ☐ **YES** ☐ **NO**

Record retention in accordance with applicable Rhode Island statutes and regulations, but in no case less than 3 years [**4.10.1(A)(1)(d)**] ☐ **YES** ☐ **NO**

Compliance with QA for image processing equipment [**4.10.1(A)(2)(c)**] ☐ **YES** ☐ **NO**

Radiographic Equipment:

System(s) evaluated by QMP prior to initial clinical use and after installation or relocation. Evaluation follows nationally recognized procedures or those recognized by the Agency [**4.10.1(A)(3)(b)**] ☐ **YES** ☐ **NO**

CBCT Equipment:

Evaluation of CBCT performed by QMP within 30 days of initial installation, at intervals not to exceed 12 months, and within 30 days after any change or replacement of components which, in the opinion of the QMP, could cause a change in the radiation output or image quality [**4.10.1(A)(5)(e)**] ☐ **YES** ☐ **NO** ☐ **NA**

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12) GENERIC COMMUNICATIONS

RCA Information Notices, Newsletters and other generic communications are being received	☐	**YES**	☐	**NO**	☐	**NA**
When required, appropriate training and action is being taken in response to these generic communications	☐	**YES**	☐	**NO**	☐	**NA**

13) EXIT MEETING

APPENDIX A - DOCUMENTATION OF DEFICIENCIES

Reference		Basis for Deficiency
Report Item:		
Regulation:		
Type N/C:		
Report Item:		
Regulation:		
Type N/C:		
Report Item:		
Regulation:		
Type N/C:		
Report Item:		
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Type N/C:		
Report Item:		
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Type N/C:		
Report Item:		
Regulation:		
Type N/C:		

APPENDIX B - ACTION ON PREVIOUS INSPECTION FINDINGS

Identification and Summary of Action Taken **Status**

Report No.: Type N/C: ☐ OPEN ☐ CLOSED

Description of Deficiency:	
Action Taken:	