



State of New Hampshire
Department of Health and Human Services
Division of Public Health Services
Radiological Health Section

Veterinary X-Ray Inspection Guide

Administrative items:

- Registration is available and current
- Radiation Protection Program must include:
 - Name of Radiation Safety Officer (RSO), and RSO responsibilities
 - Annual review of Radiation protection program - documentation for 3 years of reviews conducted by RSO or management/ownership
 - Training requirements for users of x-ray machines
 - Safe operating Procedures
 - Personnel Monitoring and annual dose limits
 - Dose limits to the public
 - Use of Lead aprons
 - Declared pregnant women and Exposure policy
 - Self-inspections/audits
- Dosimetry Records – Entire dosimetry history must be maintained
 - Prior occupational dose
 - Dosimetry reports provided by request to employees upon termination
- X-ray logs: patient file or digital storage
 - X-ray log that includes human holder name
- Scaled Drawing and Shielding evaluation that includes the following:
 - Locations of X-ray machines
 - Adjacent area use and occupancy factors
 - Shielding thicknesses
 - Shielding review must include assumptions made by registered physicist
 - **NOTE: IT IS THE REGISTRANT'S RESPONSIBILITY TO MAINTAIN RECORDS OF A SHEILDING EVALUATION AND A SCALED DRAWING**
- Posting of RHS-5: Notice to Employees
 - Employees have access to the current version of the New Hampshire Rules for the Control of Radiation (NHRCR) either online or printed out
- Service records – e.g. Maintenance, installation paperwork, calibration, etc.

Machine Requirements:

Diagnostic machine Requirements:

- Legible and accessible Machine labels include the following:
 - Warning: this X-ray unit may be dangerous to patient and operator
 - Machine produces radiation when energized
- Technique Chart must be posted on or near machine and indicate the following:
 - Any adjustable settings used by the practice including:
 - kVp setting
 - Timer setting
 - mA
 - Film or digital sensor
 - Icons/preset values can be taken into consideration
- User manual available

Intraoral machine Requirements:

- Legible and accessible Machine labels include the following:
 - Warning: this X-ray unit may be dangerous to patient and operator
 - Machine produces radiation when energized
- Technique Chart must be posted on or near machine and indicate the following:
 - Any Adjustable settings used by the practice including:
 - kVp setting
 - Timer setting
 - mA
 - Film Speed/Sensor type
 - Icons/preset values can be taken into consideration
- Tube housing is stable, all locking/holding/centering devices function as necessary
- Digital Sensor or Film Type
- User manual available



**State of New Hampshire
Department of Health and Human Services
Division of Public Health Services
Radiological Health Section**

Hand-Held intraoral machine e.g. Nomad

- Legible and accessible Machine labels include the following:
 - Warning: this X-ray unit may be dangerous to patient and operator
 - Machine produces radiation when energized
- Battery charge indicator
- Technique Chart must be posted on or near machine and indicate the following:
 - Any Adjustable settings used by the practice including:
 - kVp setting
 - Timer setting
 - mA
 - Icons/preset values can be taken into consideration
- Protective Shielding in place
- Operator requirements:
 - Device specific training documented
 - Operator wears a lead apron
 - Operator wears extremity dosimeter
- User manual available

Radiological Health Section (RHS) Performance Checks

- An RHS inspector will verify the performance characteristics of selected x-ray machines using specialized instrumentation. The parameters most frequently measured are:
 - kVp output
 - timer accuracy
 - filtration
 - entrance skin exposure (ESE)
 - general operability
 - Operator exposure rate measurements
- **NOTE:** An RHS inspector tests your machine to verify that it is operating in compliance with the NHRCR. A RHS inspection should not be considered as routine maintenance of your machine. If there are any performance issues noted during the inspection, contact your service provider.

References:

- *New Hampshire Rules for the Control of Radiation (NHRCR):*
 - *He-P 4019 - Notices, Instructions, and Reports to Workers; Inspections*
 - *He-P 4020 - Standards for Protection Against Radiation*
 - *He-P 4021 - Records, Reports, and Additional Requirements*
 - *He-P 4022 - Surveys and Monitoring*
 - *He-P 4040.03 - Shielding Plan Review*
 - *He-P 4045 - Use of Radiation Machines: Administrative Requirements*
 - *He-P 4046.01 - General Requirements for All Diagnostic X-Ray*
 - *He-P 4046.06 - Radiographic Systems Other Than Fluoroscopic, Dental Intraoral, or Computed Tomography X-ray Systems*
 - *He-P 4046.07 - Certified Diagnostic Systems Only*
 - *He-P 4046.08 - Dental Intraoral Radiographic Systems*
 - *He-P 4046.09 - Hand-held Dental Intraoral Machines*
 - *He-P 4046.16 - Veterinary Facilities – Radiation or MRI Machine General Requirements*
- *NHRCR can be found here:*
<https://www.dhhs.nh.gov/programs-services/environmental-health-and-you/radiological-health/new-hampshire-radiation-machines>

Radiological Health Section
Division of Public Health Services
NH Department of Health & Human Services
29 Hazen Drive
Concord, NH 03301
(603) 271-4588
Radiation.Machines@dhhs.nh.gov