

Job Class Profile: Radiation Analyst**Pay Level: CG-29 Point Band: 622-675**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	4	4	3	5	3	4	4	1	5	
Points	187	67	19	24	90	87	83	21	54	632

JOB SUMMARY

The Radiation Analyst performs technical and clerical work in maintaining a Thermoluminescent Dosimetry assessment program and in carrying out Dental and Veterinary Radiation surveillance programs with the purpose of ensuring compliance with and enforcing the Radiation Health and Safety Act and Regulations and the Occupational Health and Safety Act and Regulations.

Key and Periodic Activities

- Schedules, conducts, generates reports and communicates results of on-site dental and veterinary radiation inspections including radiation surveys, physical equipment inspections and determination of techniques. Responds to requests from users to check radiation levels.
- Issues orders to correct violations of the “Occupational Health and Safety Act and Regulations” and the “Radiation Health and Safety Act and Regulations” and recommends suitable control or protective measures to users. Enforces compliance with applicable standards for x-ray equipment use. Conducts follow-up investigations to ensure compliance.
- Reviews, analyzes and initiates corrective action as required based in Radiation Exposure Report results as submitted by Health Canada.
- Maintains an electronic registry of radiation producing equipment, ensuring that all x-ray equipment in the province is registered upon installation and annually thereafter. In addition, throughout the year, purchase, sale or decommissioning of equipment by owners must be recorded.
- Provides support to external clients such as equipment supply companies and service technicians, in areas of technical consultation of legislated requirements, x-ray inspection methods, equipment, procedures, radiation shielding process and requirements.
- Reviews architectural plans for new or altered dental and veterinary facilities to ensure adequate structural shielding and design requirements to provide an adequate level of radiation protection.
- Calibrates and maintains office radiation instrumentation as well as organizes an annual calibration of radiation survey instrumentation through an approved calibration facility.
- Develops and updates radiation survey methodology as required based on interpretation of current legislation.
- Conducts joint inspections with the Radiation Inspector in medical facilities when conducting scatter radiation tests on new equipment installations.

SKILL

Knowledge
<p>General and Specific Knowledge:</p> <ul style="list-style-type: none"> — Radiation health and safety legislation and regulations — Technical survey equipment and radiation equipment. <p>Formal Education and/or Certification(s):</p> <ul style="list-style-type: none"> — Minimum: Graduation from an approved post secondary program in X-ray or Radiation related program <p>Years of Experience:</p> <ul style="list-style-type: none"> — Minimum: 1-2 years of experience in radiation plus compliance related experience. <p>Competencies:</p> <ul style="list-style-type: none"> — Proof-read, edit and format documents — Operate various computer software programs — Write straight-forward and detailed text — Conduct analysis and assessment
Interpersonal Skills
<ul style="list-style-type: none"> — A range of interpersonal skills are used including asking the appropriate questions and listening attentively to gather information and provide routine information, advice and direction to others; communicates specialized information such as inspection protocol and interpretation of diagnostic readings and gains the cooperation of others to address issues and concerns or ensure compliance with legislation. — Communications occur with employees within the immediate work area, department and outside organizations such as dental and veterinary clinics and equipment supply companies and service technicians. — The most significant contacts include Radiation Inspector, employees and supervisors/managers, radiation system owners and suppliers of dental and veterinary equipment.

EFFORT

Physical Effort
<ul style="list-style-type: none"> — Work demands do not result in considerable fatigue requiring periods of rest. — Regularly required to lift objects and equipment up to 25lbs such as survey equipment, computer and printer and lead protective apparel. — Work provides the opportunity to regularly stand and walk within the office environment and to conduct inspections. — Driving is a regularly required to conduct inspections and investigations province wide. — Constant sitting while driving and when in the office performing computer work. — During radiation inspections, frequent standing, manipulating x-ray equipment for testing and performing precise movements in limited spaces is required.
Concentration

- **Visual concentration** is regularly required while driving; entering data; aligning and reading radiation survey equipment; reviewing plans and conducting investigations.
- **Auditory concentration** is required when operating x-ray equipment as equipment has audio indicators for duration and completion of exposures.
- **Repetition requiring alertness** is regularly required when entering data into spreadsheets and conducting technical equipment compliance testing.
- There are limited conflicting demands and **interruptions** causing **lack of control over work pace**.
- **Exact results and precision** and **eye/hand coordination** are regularly required when entering data into spreadsheets and conducting technical equipment compliance testing which requires accurate results.

Complexity

- Work tasks and activities are similar/related in terms of the skills and knowledge used and the tasks are usually well defined and issues have obvious solutions or can be resolved by following procedures or guidelines.
- Typical challenge or problem is ensuring facilities provide appropriate shielding for a designated room layout so that workers and the general public are not adversely affected.
- Reference can be made to provincial Acts and regulations including Occupational Health and Safety Act and Regulations, Safety Codes of Health Canada as well as specialists, managers, policies, and technical literature to address problems or issues.

RESPONSIBILITY

Accountability and Decision-Making

- Work tasks and activities are generally prescribed or controlled.
- Works with initiative and independence, with work being reviewed through consultation, reports and observation of results achieved.
- Can independently schedule inspections and make own travel arrangements, conduct inspections and make interpretations of legislation, exercise discretion and determine course of action when enforcing compliance/issuing orders.
- Equipment purchases, regulatory changes, and approval of leave all require managerial approval.
- Discretion and judgement is exercised during equipment inspections and when issuing orders to correct violations of the Occupational Health and Safety Act and Regulations and the Radiation Health and Safety Act and Regulations.
- Recommends suitable controls or protective measures to users (i.e. dental and veterinary clinics).

Impact

- The scope of impact is primarily outside the organization on employees in the dental and veterinary facilities, radiation system operators, and the general public.
- Work would have a significant impact on equipment (taken out of service for inspection and non compliance), facilities, human resources and health and safety (of patients, workers and

operators).

- A consequence of error could be an overdose in radiation causing occupational disease and significant cost.
- Errors or mistakes could have a significant impact on equipment, finances, corporate image and health and safety. It would have some impact on processes and systems, information and facilities.
- Protocols, policies and procedures, guidance from technical specialists and manager help mitigate errors and their consequences.

Development and Leadership of Others

- Not responsible for the supervision of staff.
- May provide occasional advice and guidance when required.

WORKING CONDITIONS

Environmental Working Conditions

- Work requires special precautions and safety equipment when testing radiation emitting equipment such as a dosimeter to monitor radiation exposure. For some inspections lead aprons and thyroid shields are worn.
- There is limited likelihood of injury or occupational illness resulting in partial disability. The likelihood of minor, bruises, abrasions or minor illnesses or total disability does not apply.
- Work involves travel and exposure to radiation, hazardous chemicals and awkward or confining spaces on a regular basis.