BCIT BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Procedure

Radiation Safety

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Approval Body:	Board of Governors
Executive Sponsor:	Vice President Human Resources & People Development
Department Responsible:	Safety, Security and Emergency Management
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Objectives

This procedure applies directly to Policy 7150, Occupational Health and Safety. It describes the roles and responsibilities of BCIT employees, students, and others in administering or working safely with radioactive materials and radiation-emitting devices.

Who This Procedure Applies To

This procedure applies to all members of the BCIT community, including all BCIT employees, students, contractors, and visitors with respect to the use, storage, transportation, and disposal of radioactive materials and radiation-emitting devices.

Related Documents and Legislation

Federal Legislation

Canada Nuclear Safety and Control Act, SC 1997, c 9
General Nuclear Safety and Control Regulations, SOR/2000-202
Radiation Protection Regulations, SOR/2000-203
Nuclear Substances and Radiation Devices Regulations, SOR/2000-207
Packaging and Transport of Nuclear Substances Regulations, SOR/2019-353

Provincial Legislation

Occupational Health and Safety Regulation, BC Reg 296/97, Part 7 – Noise, Vibration, Radiation and Temperature

Standards and Codes

Canadian Standards Association Standard Z386-21 – Safe Use of Lasers in Health Care Facilities
Health Canada Safety Code 20A, 24, 32, 33, 34 and 35 (x-ray and ultrasound)

Other Documents

BCIT Radiation Safety Manual

Definitions

BCIT Radiation Safety Committee: means the Committee established by the Senior Director, Safety, Security and Emergency Management to advise on, monitor, and oversee radiation safety matters at BCIT.

Ionizing Radiation: means a process in which the radiated energy is able to ionize atoms or molecules of a substance in which the energy is absorbed. This leads to chemical changes that can damage biological tissues and structural materials. Examples: X-rays, gamma rays, alpha particles, and beta particles.

Non-Ionizing Radiation: means any type of electromagnetic radiation that does not have enough energy to ionize atoms or molecules.

Radiation Safety

In order to simulate current industry practices and equipment for teaching purposes, it is important that BCIT possess and use instruments and sources emitting both ionizing and non-ionizing radiation. Radiation is potentially hazardous. Therefore, BCIT takes the following steps regarding radiation safety. The Institute:

- Educates, monitors, and advises those employees, students, and contractors, who are involved with radiation sources.
- Provides guidelines and procedures to be followed for the safe handling and operation of related materials, instruments, and facilities.
- Maintains compliance with applicable laws and regulations.

Duties and Responsibilities

Safety, Security and Emergency Management Department – Radiation Safety Officer

The Radiation Safety Officer is responsible for:

- educating, training, and auditing students, staff, and other personnel at BCIT with respect to radiation safety; and
- promoting and maintaining rigorous compliance with all applicable regulations and license conditions.

BCIT Radiation Safety Committee

The primary responsibility of the Committee is to advise the Radiation Safety Officer, BCIT management, and applicable join occupational health and safety committees (when necessary) on the quality and effectiveness of radiation safety policies and programs and the safety of employee and student work practices.

The Committee is also responsible for:

- ensuring it has representation from each department that utilizes radioactive materials, devices incorporating radioactive sources, or radiation emitting devices; and

- ensuring Committee representatives have expertise in their area with respect to radiation safety.

BCIT Community

All members of the BCIT community working with or around radiation must be aware of and follow the procedures in the BCIT Radiation Safety Manual. This group must also adhere to all conditions of the current license and applicable federal and provincial regulations. It is the responsibility of these users to use and facilitate the use of radioactive materials and radiation-emitting devices in a manner consistent with ALARA (As Low As Reasonably Achievable) principles to minimize exposures while performing duties in a practical manner.

Amendment History

		Approval Date	Status
Created:	Procedure 7150-PR1 (from Policy 7517)	2012 Mar 30	Replaced
Revised:	Procedure 7150-PR2 (Renumbered)	2019 May 28	Replaced
Revised:	Procedure 7150-PR2	2023 Feb 28	In Force

The Radiation Safety Policy 7517 has been retired as a separate policy and is now a procedure under Policy 7150, Occupational Health and Safety. Its amendment history as a separate policy follows:

Created	2003 May
Revision 1	2004 Sep 13
Revision 2	2004 Dec 1
Revision 3	2005 Apr 26
Revision 4	2006 Apr 5
Revision 5	2009 Jul 21
Revision 6	2010 Aug 06
Retired	2012 Mar 30

Scheduled Review Date

2028 February 28