

## Radiation – Regulation and Application in Health Care Settings

This OSACH Fast Fact is intended to help employers, managers, supervisors, workers and JHSC members understand the application of regulations that pertain to radiation safety in Ontario.

*Radioactive materials are used in the hospital setting to diagnose and treat disease. As well, these materials may be used in hospital laboratories. For these purposes, the hospital will need one or more licenses from the Canadian Nuclear Safety Commission (CNSC). [www.nuclearsafety.gc.ca](http://www.nuclearsafety.gc.ca)*

*As a condition of the license, the workplace needs to designate a person as the Radiation Safety Officer. This person will sign the license application. Also under the terms of the license, people working with the radioactive materials must be trained.*

*The use of x-ray machines is governed by provincial acts and regulations. In Ontario, healthcare x-ray machines are covered by the Healing Arts Protection (HARP) Act. Safety considerations for x-ray machines are laid out in Ontario Regulation 663/00 ("X-RAY SAFETY CODE," previously Reg. 543). X-ray sources operating at very high energies are subject to licensing by the CNSC.*

*Regulation 663/00 outlines what the owner of an x-ray machine needs to do to become registered. This includes providing specifications on where the machine is to be located, shielding, position of the doors and windows.*

### The Regulation Also Includes the Following:

- A list of topics that those who wish to operate an x-ray machine must study
- Duties of the Radiation Protection Officer; this includes dental, chiropractic and medical radiation protection officers
- Warning signs and other indicators indicating when the when the x-ray machines are in use
- Other details regarding switches on the x-ray machine
- Details regarding various aspects of x-ray machines used for various purposes

In summary, the HARP Act deals with the x-ray machine itself, its operation and the training necessary for individuals working on the machines.

The Ministry of Health and Long Term Care has responsibility for periodically inspecting healthcare x-ray machines.

### Relationship between the RHPA and the HARP Act

Both the Regulated Health Professions Act (RHPA) and the Healing Arts Radiation Protection Act (HARP Act) govern Medical Radiation Technologist (MRT) practice. Both regulate applying or ordering the application of energy. However, they deal with different types of energy : the RHPA deals with energy as defined under its regulations and the HARP Act deals with ionizing radiation.

Under the RHPA, the application of energy falls within Controlled Act 7, "applying or ordering the application of a form of energy prescribed by regulation." The regulations defining what constitutes energy, for purposes of the controlled act, can be found in Appendix C. To date, the list does not include ionizing radiation. That is because ionizing radiation is regulated under the HARP Act and other legislation. The manner in which the HARP Act regulates the ordering and application of ionizing radiation is through the regulation of the use and operation of x-ray machines and equipment. As a result, the application or ordering of the application of ionizing radiation is not a controlled act procedure, and it is not referred to in these terms.

## Summary of Abbreviations

CNSC: Canadian Nuclear Safety Commission

HARP: Healing Arts Radiation Protection Act

MRT: Medical Radiation Technologist

RHPA: Regulated Health Professions Act

**More information can be found at the following web sites:**

[www.moh.gov.on.ca](http://www.moh.gov.on.ca)

[www.mol.gov.on.ca](http://www.mol.gov.on.ca)

[www.radiationsafety.ca](http://www.radiationsafety.ca)



*The information contained in Fast Facts is correct at the time of publication.*

The Fast Facts series is copyrighted by the Ontario Safety Association for Community Healthcare (OSACH). Individual Fast Facts can be copied freely provided appropriate credit is given to OSACH.

For more information, please contact:

Ontario Safety Association for Community & Healthcare

4950 Yonge Street, Suite 1505, Toronto, Ontario Canada M2N 6K1

Tel. (416) 250-7444 • Toll Free 1-877-250-7444 • Fax (416) 250-9190 • Web Site: [www.osach.ca](http://www.osach.ca)

FRADE134 • Rev. 03/09