

Radiation Dose

The SI unit for equivalent dose and effective dose is the sievert (Sv).

The customary unit for equivalent dose and effective dose is the rem.

$$1 \text{ Sv} = 100 \text{ rem}$$

$$1 \text{ rem} = 0.01 \text{ Sv} = 10 \text{ mSv}$$

$$0.1 \mu\text{Sv} = 0.01 \text{ mrem} \quad 1 \text{ mSv} = 100 \text{ mrem}$$

$$1 \mu\text{Sv} = 0.1 \text{ mrem} \quad 10 \text{ mSv} = 1 \text{ rem}$$

$$10 \mu\text{Sv} = 1 \text{ mrem} \quad 100 \text{ mSv} = 10 \text{ rem}$$

$$100 \mu\text{Sv} = 10 \text{ mrem} \quad 1 \text{ Sv} = 100 \text{ rem}$$

The SI unit for absorbed dose is the gray (Gy).

The customary unit for absorbed dose is the rad.

$$1 \text{ Gy} = 100 \text{ rad}$$

Exposure

The SI unit for exposure is C/kg.

The customary unit for exposure is the roentgen (R).

$$1 \text{ C/kg} = 3876 \text{ R}$$

Exposure-Dose Relationship

$$1 \text{ Gy} = 100 \text{ rad} \approx 100 \text{ R}$$



Good Science in Plain Language®

Founded in 1980, the Radiation Safety Institute of Canada is an independent, national organization dedicated to promoting and advancing radiation safety in the workplace, in the environment and in the community. Our commitment to the principle of “good science in plain language” underpins everything we do.

The Radiation Safety Institute of Canada is incorporated under the laws of Canada as a not-for-profit corporation and is also a registered charity.

NATIONAL EDUCATION CENTRE

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(416) 650-9920 fax

NATIONAL LABORATORIES

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Saskatoon, SK S7N 3R3
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2021 X-RAY SAFETY OFFICER (XSO) CERTIFICATE COURSE



**Radiation Safety
Institute of Canada**
Institut de radioprotection du Canada

DETACH THIS REFERENCE CARD AND KEEP FOR EASE OF REFERENCE

- Call us at 416 650 9090 ext 28 for help with:
- Shielding design and calculations
 - X-Ray safety audits
 - X-Ray safety program design
 - On-site training

Get XSO Certified

It's the law*!

Learn remotely in 2021: all our courses are web-based with live instruction

X-RAY SAFETY OFFICER (XSO) COURSE

A unique 3-day web-based program designed to prepare you to fulfill your legal obligations surrounding X-ray safety in the workplace.

Topics covered include:

- Understanding radiation
- X-rays: radiation made by machine
- Radiation quantities and units
- Biological and health effects of exposure to X-rays
- X-ray systems, X-ray imaging and safety surveys
- Scattering and attenuation of X-rays

* Your legal obligations:

Under Occupational Health and Safety legislation, employers across Canada are responsible for X-ray Safety. As a workplace hazard, if uncontrolled, X-ray equipment can cause serious health problems, such as cancer. The person responsible for X-ray safety should be competent to oversee X-ray safety through appropriate training and experience.

WHO SHOULD TAKE THIS COURSE?

Industry, Labour, Government, Health & Safety Professionals, Industrial Hygienists, Safety Inspectors, Imaging Technologists, Nurses, etc.

By providing a solid foundation in the nature and effects of X-ray radiation, this course will prepare you to be your organization's qualified X-ray Safety Officer (XSO) and to oversee the safe use of X-ray equipment in your workplace.

HOW YOU LEARN

A dynamic mix of lecture, active discussion, daily assignments and a final exam sets this XSO program apart from any workplace safety course. This is supplemented with a training manual which includes copies of all slides and assignments.

PREREQUISITE

You do not need any prior radiation training or experience to take the course and you will receive the Radiation Safety Institute's X-ray Safety Officer Certificate upon completion of all course requirements.



XSO REFRESHER

Already an XSO? Has it been a few years since you earned your certificate?

As an active XSO you will benefit from our new one-day course that reinforces your X-ray safety

2021 X-RAY SAFETY OFFICER COURSES

XSO Course

\$1540 + applicable taxes



- Feb. 22 - 24
- April 13 - 15
- July 05 - 07
- Oct. 19 - 21

XSO Refresher

\$655 + applicable taxes



- Mar. 8
- Dec. 6

HOW TO REGISTER TODAY



Register in a few clicks at radiationsafety.ca



Call us at 1-800-263-5803 or (416) 650-9090 ext. 21



Email us at info@radiationsafety.ca

Cancellations | The following administrative fees will apply to course registration refunds:

- 20% of course fee if cancelled 14 days prior to the scheduled date
- 50% of course fee if cancelled less than 14 days prior to the scheduled date
- No refunds will be issued if cancelled on the day of the course