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Lunch, Learn, & Dance
Wellness Webinars

April 1, 2021

Regulatory Bodies and International Agencies

Followed by Araguacu Latin Dance Company

Good Science in Plain Language®

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Webinar Functionality

- Audio and video
  - Will be from the presenters only
  - Use computer or telephone (call in)
  - Computer seems to give the best sound quality
- Use the “Chat” feature to enter comments
- Use the “Questions” feature to ask questions
- Posted on webinar page
  - Video, Q&A answers, copy of the slides
- Follow up email will be sent
  - Topics covered, time of attendance
- It may be possible to change your Zoom view if the controls are hiding the closed captioning.

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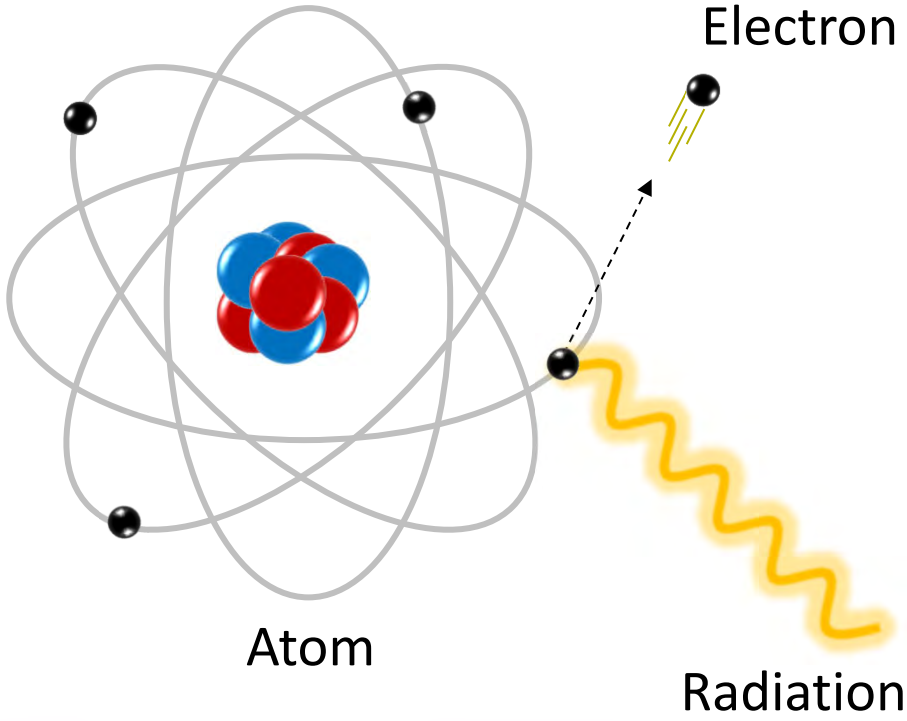
Outline

- Regulatory Bodies in Canada
  - Federal jurisdiction
  - Provincial jurisdiction
  - Federal Provincial Territorial Radiation Protection Committee
- CRPA
- RSIC's history and role
- International Agencies
  - UN-related
  - Ionizing Radiation Protection
  - Occupational Groups
  - Nuclear Energy
  - Standards and Units
  - IACRS
  - ICNIRP
- Health Physics Society

Regulatory Overview: Canada



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Federal Legislation

- All aspects of nuclear energy
  - Nuclear Safety and Control Act
  - Nuclear Energy Act
  - Nuclear Fuel Waste Act
  - Nuclear Liability and Compensation Act
- Environmental Protection Act
- Transportation of Dangerous Goods Act
- Radiation Emitting Devices Act

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Provincial Responsibilities

- Low energy X-ray equipment
- Low energy particle accelerators
- Non-ionizing radiation
  - Laser
  - UV
  - Ultrasound
  - Noise
- Naturally occurring radioactive material (NORM)
  - Except transport, import, export

CNSC

CNSC Mandate

Regulate use of	To Protect	To Implement	To Disseminate
• Nuclear energy • Nuclear materials • Prescribed equipment • Prescribed information	• Health • Safety • Security • Environment	• International commitments • Peaceful use • Nuclear energy	• Scientific, technical, and regulatory information • To public

- Independent tribunal
- Reports through Minister of Natural Resources
  - Reviewable by Federal Court
- 7 appointed members
  - 800 employees
- Transparency

AECL

- Federal Crown corporation
- Established 1952
- Contract with Canadian Nuclear Laboratories

Current Mandate

Enable nuclear science and technology	Protect the environment

Health Canada

- Safety Codes
- Technical Guidelines
- Radon
- Technical Reports

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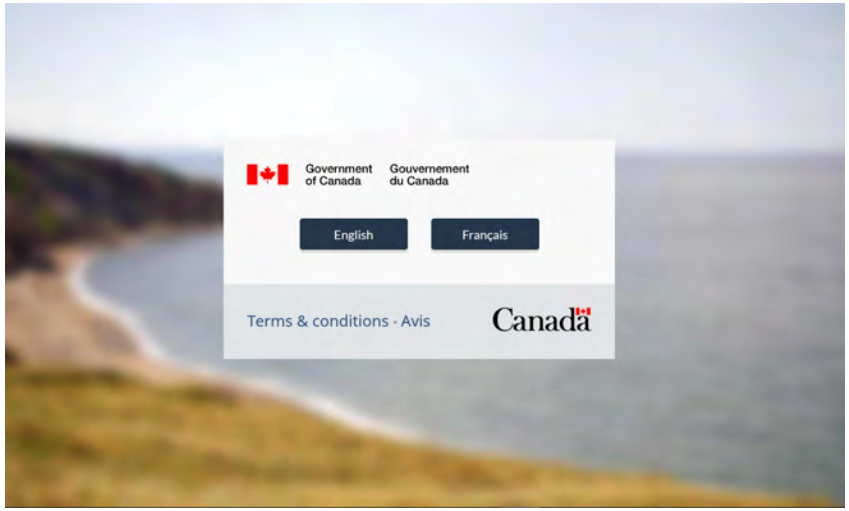
Other Federal Government



- Transport Canada
- Department of National Defence
- Global Affairs Canada
- Innovation, Science and Economic Development Canada
- Environment Canada
- Employment and Social Development Canada

Regulation

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Province or Territory	Acts and Regulations Addressing Radiation Safety
Alberta	Radiation Protection Act , Radiation Protection Regulations
British Columbia	Workers Compensation Act, Occupational Health and Safety Regulation
Manitoba	The Radiation Protection Act and Regulations
New Brunswick	Radiation listed as a health hazard in general terms in Public Health Act. No specific act or regulations.
Newfoundland and Labrador	Radiation Health and Safety Act and Regulations
Northwest Territories	Safety Act, Occupational Health & Safety regulations, Part 23
Nova Scotia	Medical Imaging and Radiation Therapy Professionals Act mentions radiation safety, but no regulations regarding specifics to date
Nunavut	Safety Act, Occupational Health & Safety regulations, Part 23
Ontario	Occupation Health and Safety Act, Regulation 861 and the Healing Arts Radiation Protection Act, Regulation 543
Prince Edward Island	Occupational Health and Safety Act General Regulations for non-ionizing radiation; otherwise, no regulations
Quebec	Occupational Health and Safety Act and Regulations has basic expectations for dosimetry and protection as a contaminant
Saskatchewan	The Saskatchewan Employment Act Part V, The Radiation Health and Safety Regulations, Occupational Health and Safety Regulations, Health Hazard Regulations
Yukon	Yukon Occupational Health and Safety Act, Radiation Protection Regulations

Developed using https://www.canlii.org/en/

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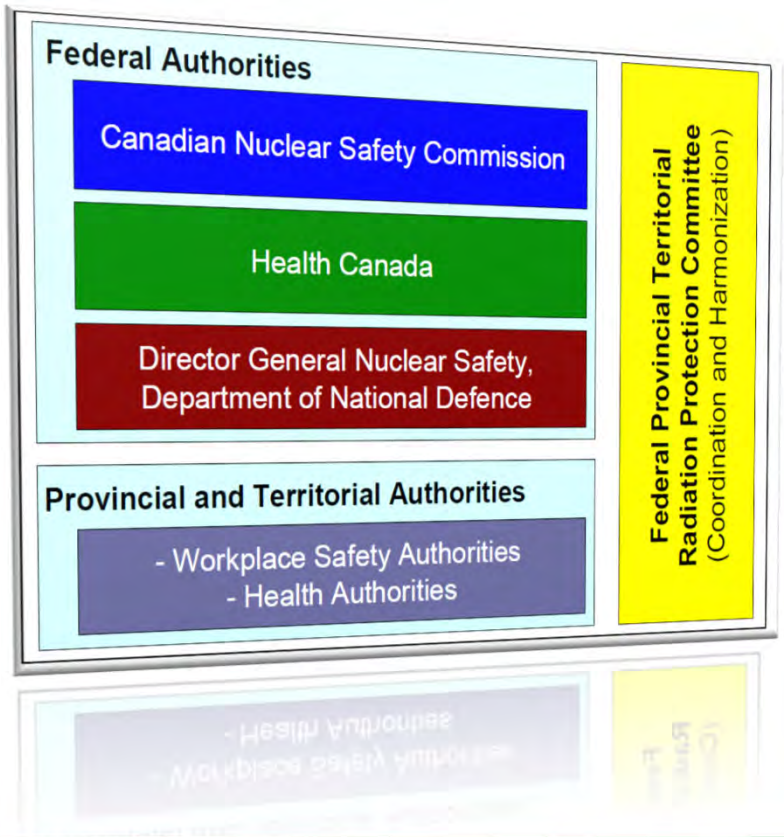
Federal Provincial Territorial Radiation Protection Committee



- Formed in 1993
- Independent
- Reports through member departments
- Primary governmental forum
  - Develop, promote, coordinate, and harmonize standards and practices
  - Recognize distinct jurisdictional responsibilities

Image from Clement, C. (2008, October).

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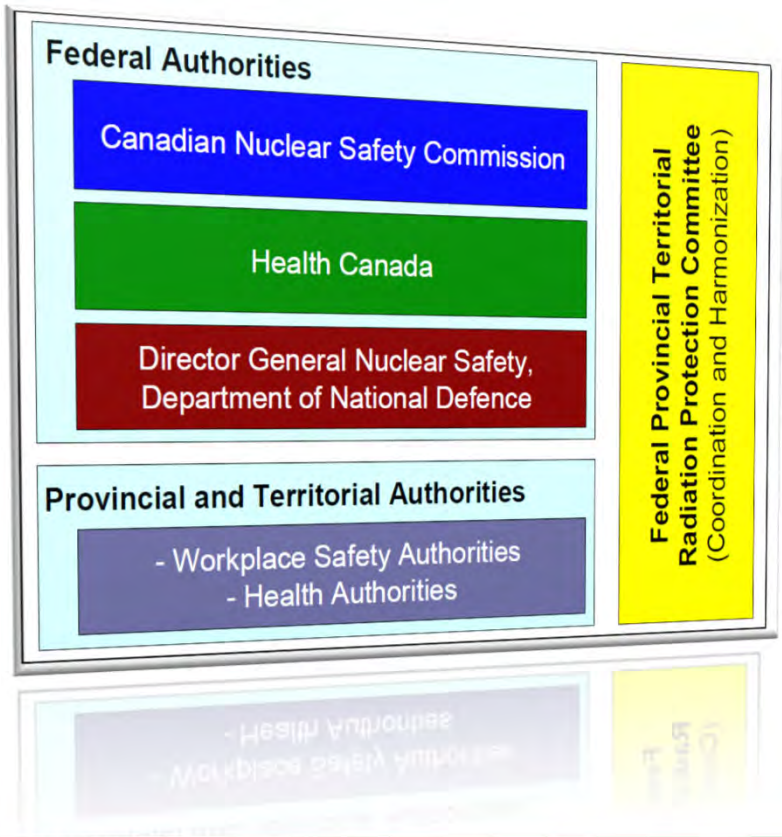
Federal Provincial Territorial Radiation Protection Committee



- One delegate from
  - CNSC
  - Department of National Defence
  - Each province and territory
    - Except Ontario
- Two delegates from
  - Health Canada
  - Province of Ontario

Image from Clement, C. (2008, October).

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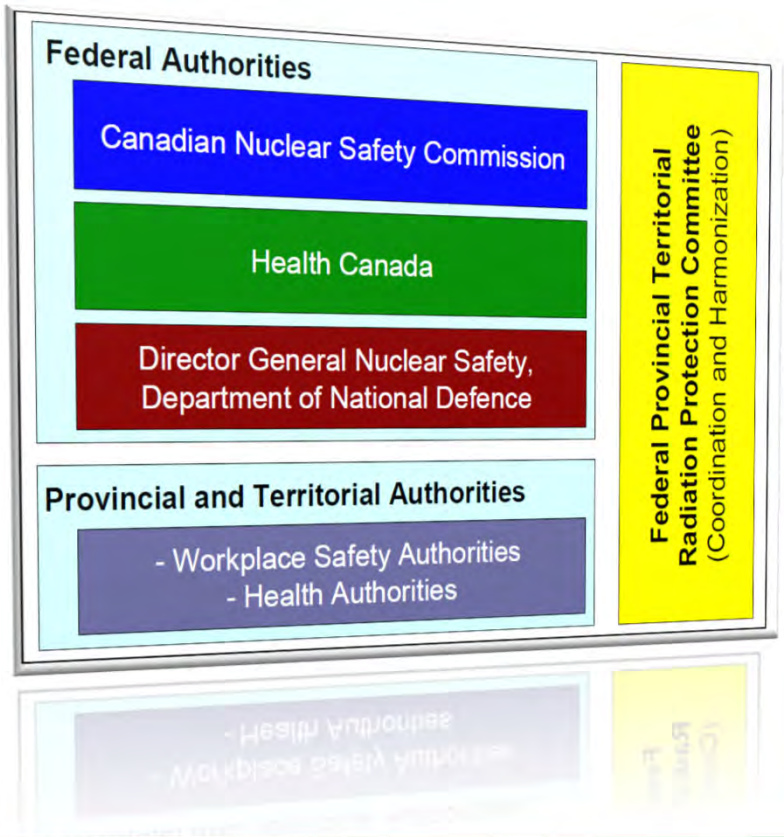
Federal Provincial Territorial Radiation Protection Committee



- Diagnostic radiology
- Dose limits and workers
- Dosimetry service and records
- Administration, standards, guidelines
- NORM
- Non-ionizing
- Nuclear medicine and radiotherapy
- Nuclear emergency preparedness
- Radiation emitting devices
- Radiation safety and control
- Resources

Image from Clement, C. (2008, October).

Canadian Radiation Protection Association

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Our History: Elliot Lake, Ontario

1953	Uranium discovered.
1955	Elliot Lake settlement established.
1955 - 1990	Elliot Lake produces most of the world's uranium.
1974	Elliot Lake miners go on strike over health and safety conditions and high incidence of lung cancer and silicosis.
1974	Government appoints a Royal Commission to investigate health and safety in mines (Chaired by Dr. James Ham).

Image by Selflearner1 via Wikimedia Commons

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Our History: Elliot Lake, Ontario

- Radiation exposure of Elliot Lake miners
  - –221 compensated lung cancer deaths*
  - –$85M WSIB compensation cost*
- The Institute was founded in 1980 in response to the Elliot Lake disaster

*WSIB information provided c. 2002

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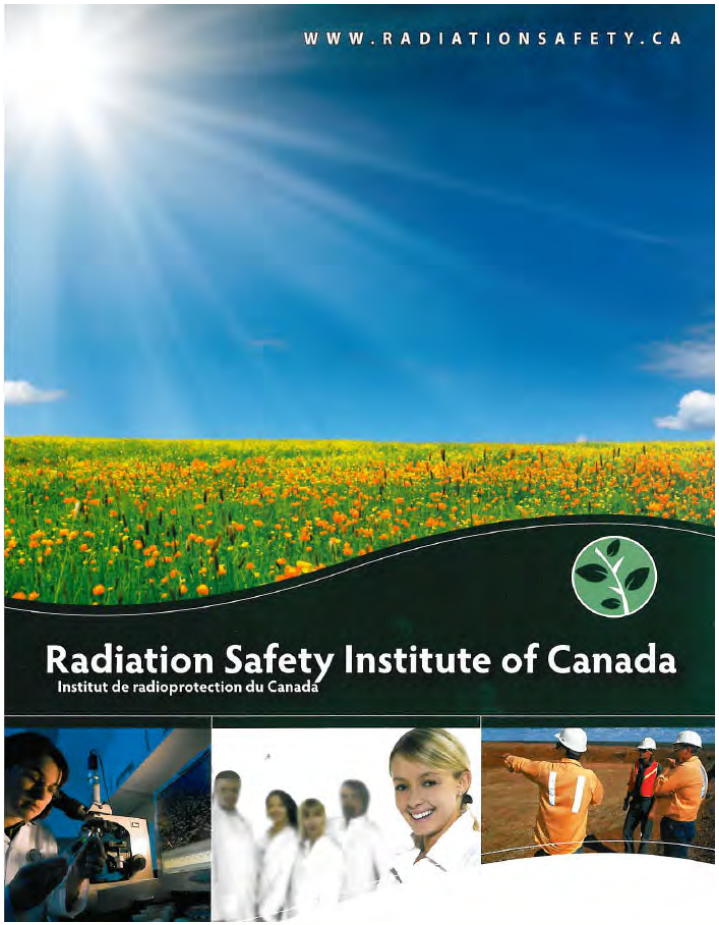
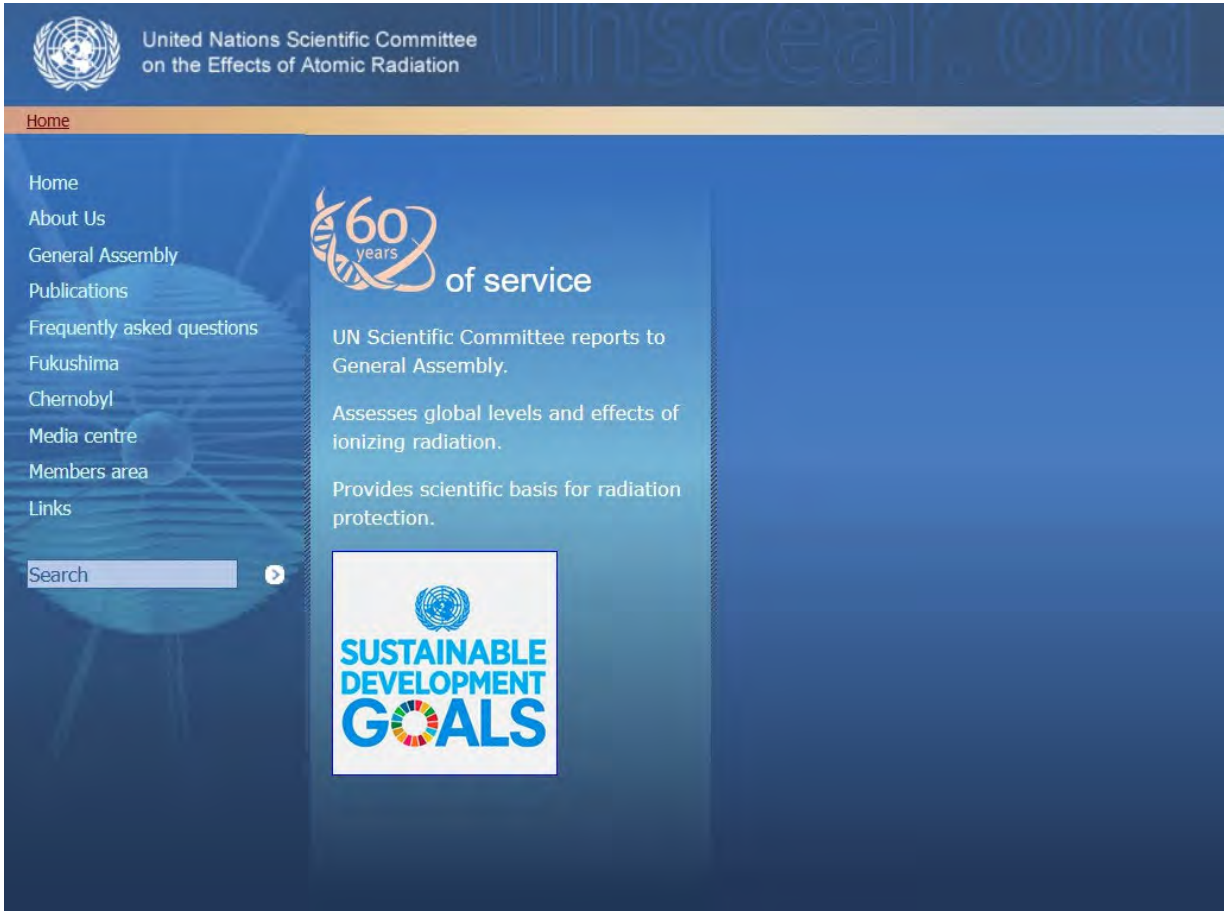
Who We Are

- Independent
- Not-for-profit
- Sole concern is **radiation safety**
- “Good Science in Plain Language”®



United Nations



IAEA

IAEA - International Atomic Energy Agency

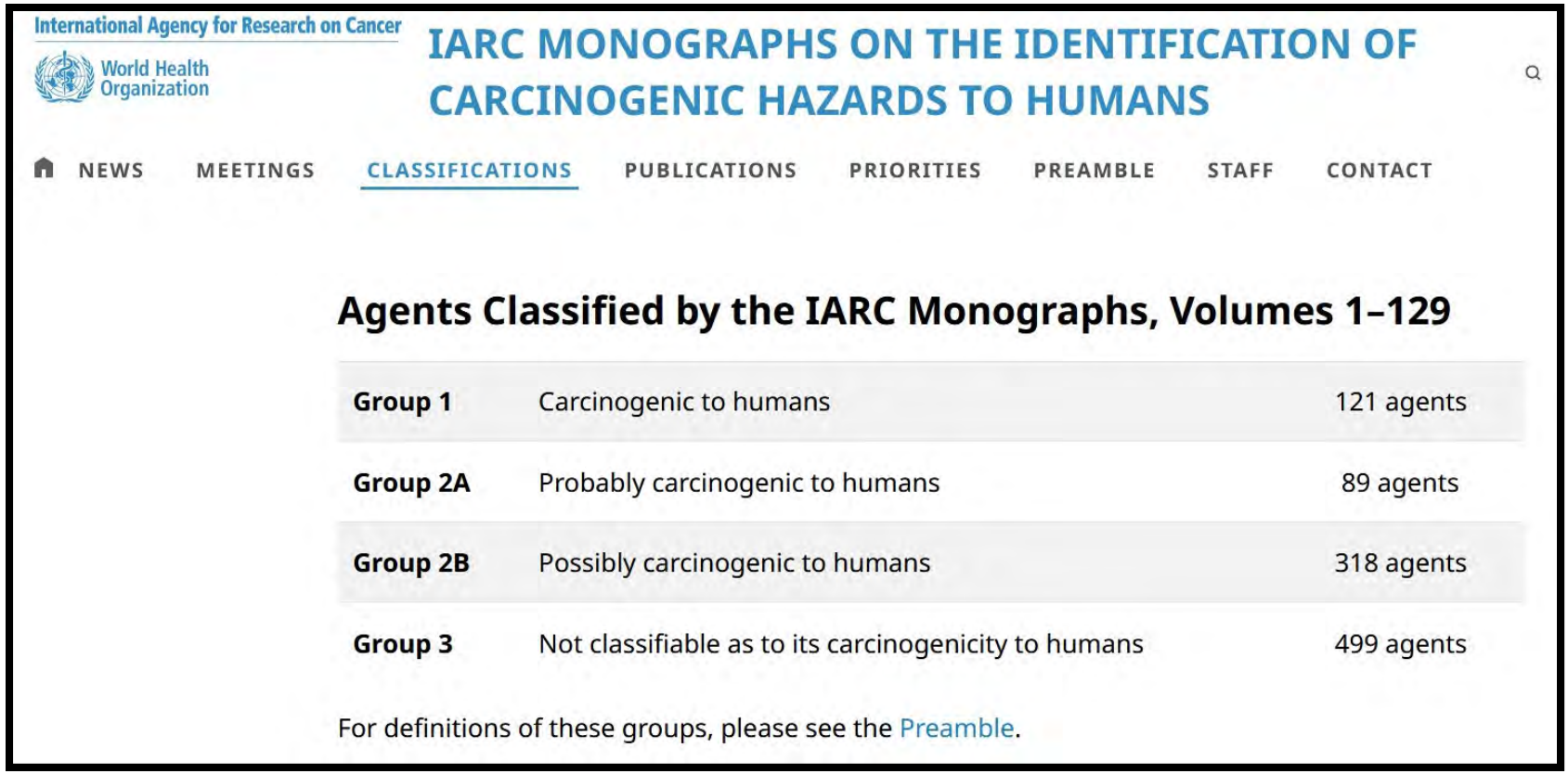
IAEA - International Atomic Energy Agency

@iaeaorg

IAEA is the 🌍's centre for cooperation in the #nuclear field, promoting the safe, secure & peaceful use of nuclear technology.

Vienna, Austria iaea.org

WHO/IARC/ISR



International Agency for Research on Cancer
World Health Organization

IARC MONOGRAPHS ON THE IDENTIFICATION OF CARCINOGENIC HAZARDS TO HUMANS

NEWS MEETINGS CLASSIFICATIONS PUBLICATIONS PRIORITIES PREAMBLE STAFF CONTACT

Agents Classified by the IARC Monographs, Volumes 1–129

Group 1	Carcinogenic to humans	121 agents
Group 2A	Probably carcinogenic to humans	89 agents
Group 2B	Possibly carcinogenic to humans	318 agents
Group 3	Not classifiable as to its carcinogenicity to humans	499 agents

For definitions of these groups, please see the Preamble.

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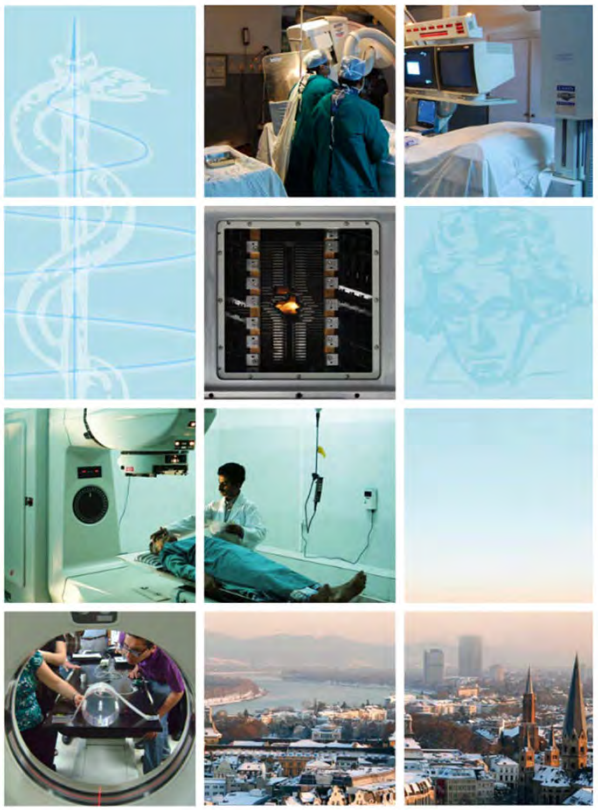
BONN Call to Action



BONN CALL FOR ACTION

10 Actions to Improve Radiation Protection in Medicine in the Next Decade

IAEA

World Health Organization

PAHO Pan American Health Organization

World Health Organization Regional Office for the Americas

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Safe Imaging Organizations

AFROSAFE RAD
Championing Radiation Safety

Arab Safe
Promoting Radiation Safety

ASIASAFE

Canada Safe Imaging | Imagerie Sécuritaire Canada

ESR EUROSAFE IMAGING

image gently®

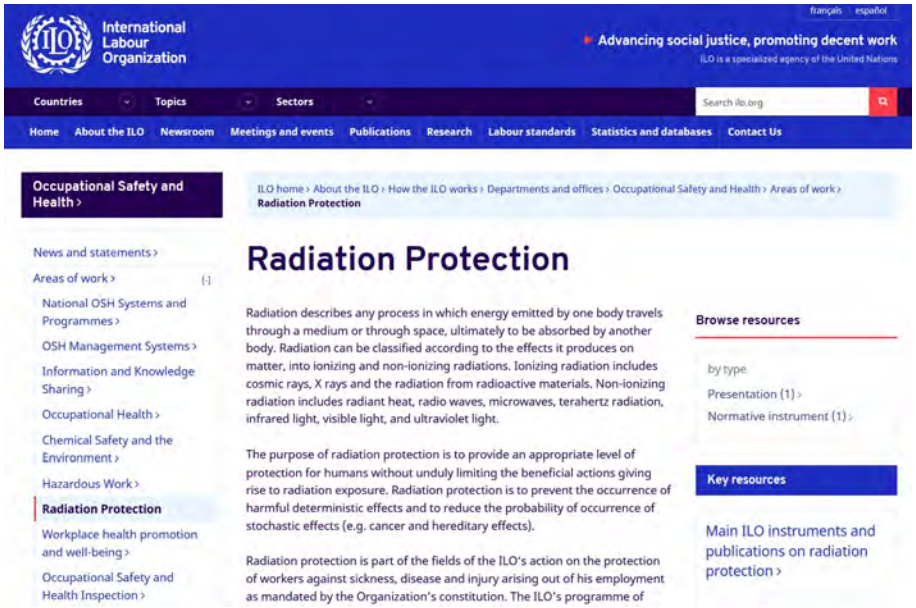
IMAGE WISELY®
Radiation Safety in Adult Medical Imaging

JAPAN RADIOLOGICAL SOCIETY

LATIN SAFE

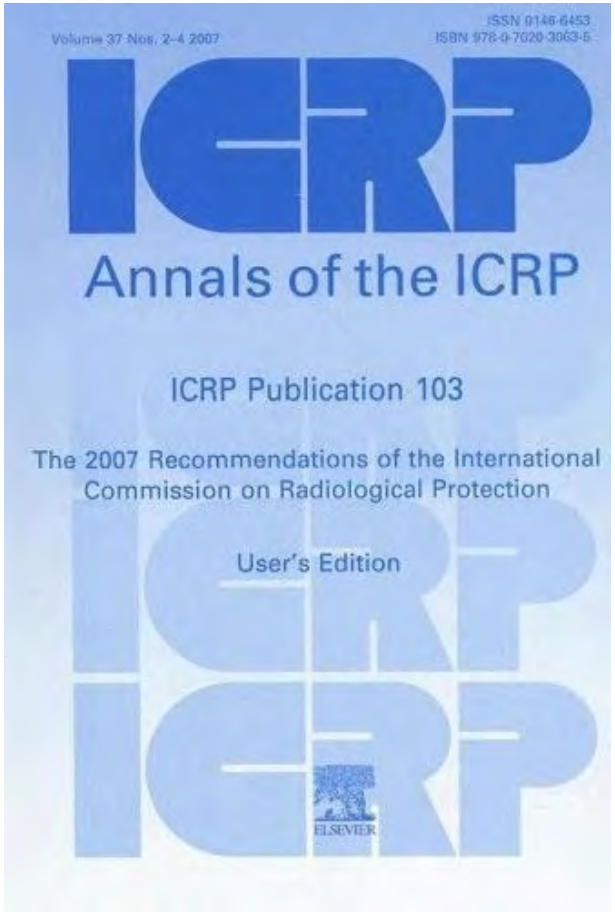
UN Associated Groups

- Food and Agriculture Organization of the United Nations (FAO)
- International Labour Organization (ILO)
- International Telecommunications Union (ITU)

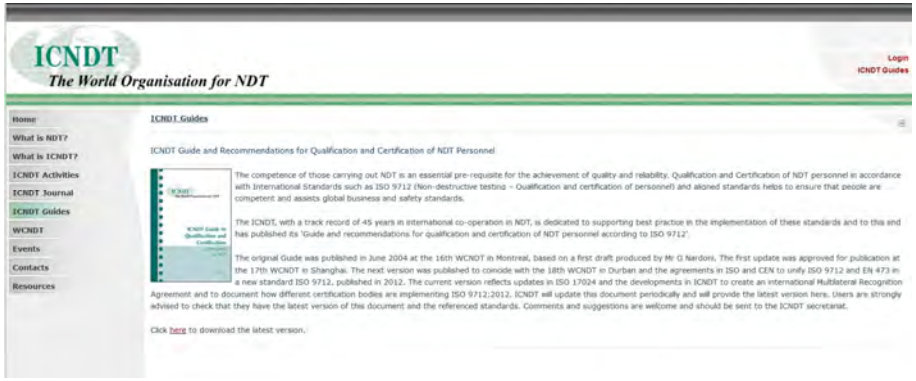


Radiation Protection Organizations

- International Commission on Radiological Protection (ICRP)
- International Radiation Protection Association (IRPA)



Occupational Groups

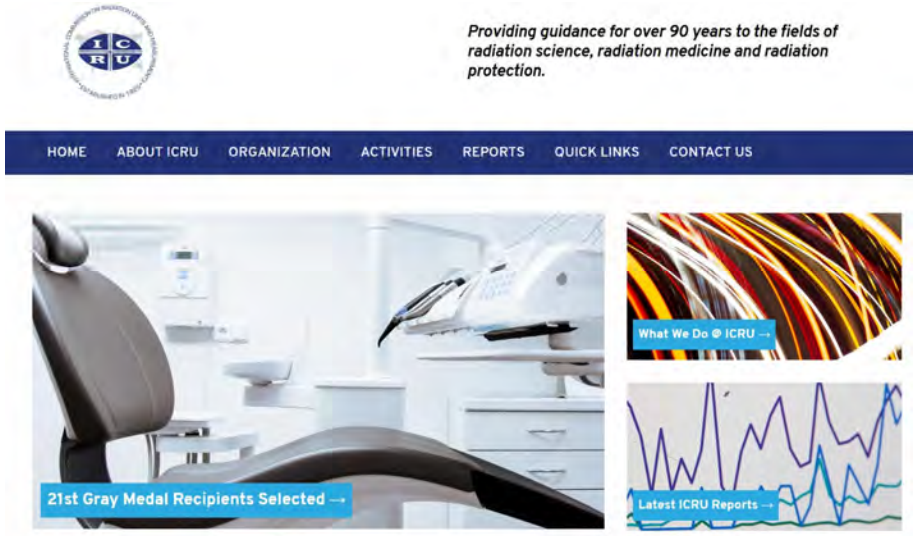


- International Committee for Non-Destructive Testing (ICNDT)
- International Organization for Medical Physics (IOMP)
- International Society of Radiographers & Radiological Technologists (ISRRT)
- World Nuclear Transport Institute (WNTI)
- Women in Nuclear (WiN)
- World Association of Nuclear Operators (WANO)

Nuclear Energy

- OECD Nuclear Energy Agency (NEA)
- World Nuclear Association (WNA)

Units and Standards



- International Commission on Radiation Units (ICRU)
- International Electrotechnical Commission (IEC)
- International Organization for Standardization (ISO)

IACRS

IACRS INTER-AGENCY COMMITTEE ON RADIATION SAFETY

- Members:
  - European Commission (EC)
  - FAO
  - IAEA
  - ILO
  - NEA
  - Pan American Health Organization (PAHO)
  - UNSCEAR
  - WHO

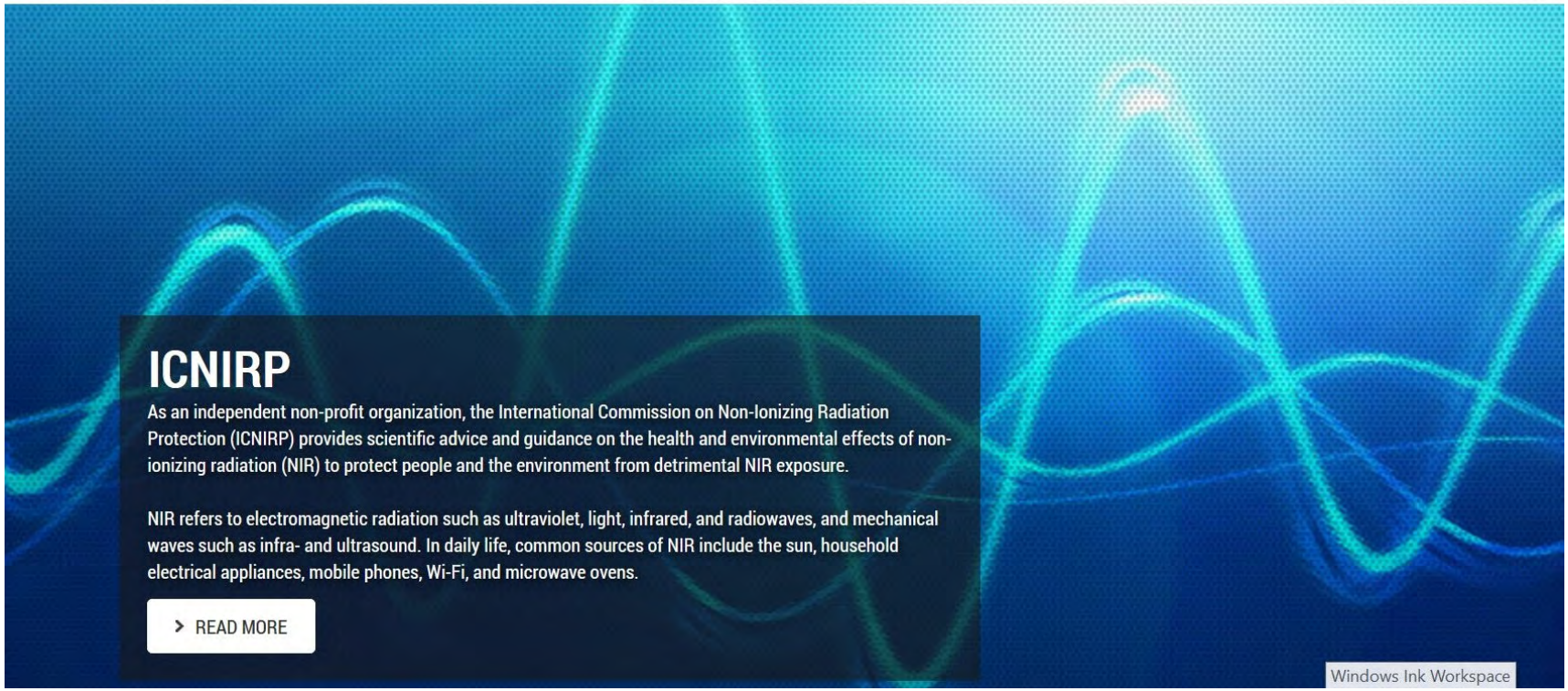
- Observers
  - ICRU
  - ICRP
  - IEC
  - IRPA
  - ISO

Non-Ionizing

ICNIRP
INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION

ABOUT ICNIRP ACTIVITIES CONTACT

FREQUENCIES APPLICATIONS PUBLICATIONS WORKSHOPS CART



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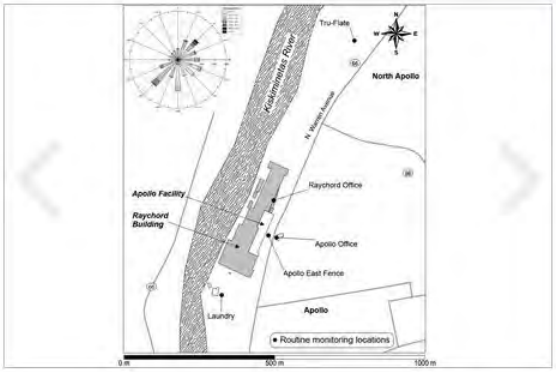


Analysis of Environmental Data to Support Quantification of Historical Releases from a Former Uranium Processing Facility in...


Raymond H. Johnson, Jr. (1939–2020)


Melton Chew (1938–2020)

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- The Radiation Safety Institute of Canada is an independent, not-for-profit organization specializing in radiation safety.

- For further information on all types of radiation contact us at:

1-800-263-5803

info@radiationsafety.ca

www.radiationsafety.ca

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