



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# *Update on Proposals to Amend Canada's Radiation Protection Regulations*

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Commission

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[nuclearsafety.gc.ca](http://nuclearsafety.gc.ca)

# Presentation Overview



- Overview of the Canadian Nuclear Safety Commission (CNSC)
- Background on the *Radiation Protection Regulations*
- Rationale for revision
  - Discussion paper
- Overview of Proposed Amendments
  - Key comments from stakeholders
- Current Status and Next steps
- Conclusion

# Canadian Nuclear Safety Commission



Regulates the use of nuclear energy and materials to protect the **health, safety** and **security** of Canadians and the environment and to implement Canada's **international commitments** on the peaceful use of nuclear energy; and to disseminate objective **scientific, technical and regulatory information** to the public

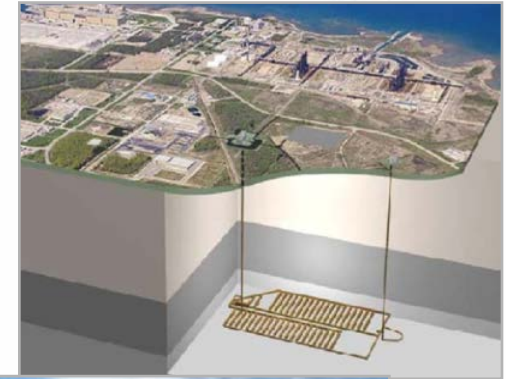




# The CNSC Regulates All Nuclear-related Facilities and Activities...



- Uranium mines and mills
- Uranium fuel fabricators and processing
- Nuclear power plants
- Waste management facilities
- Nuclear substance processing
- Industrial and medical applications
- Nuclear research and educational
- Export/import control



**... from cradle to grave**

# Radiation Protection Regulations

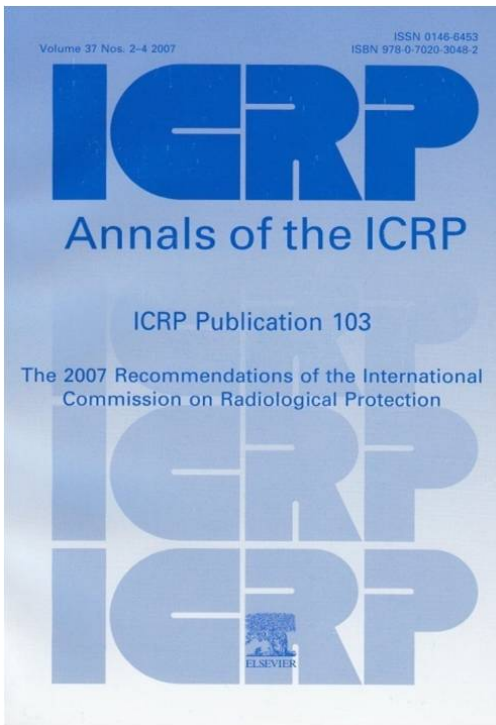


## Current *Radiation Protection Regulations* (RPR):

- Promulgated May 31, 2000
- Patterned after ICRP 60 (1990) recommendations



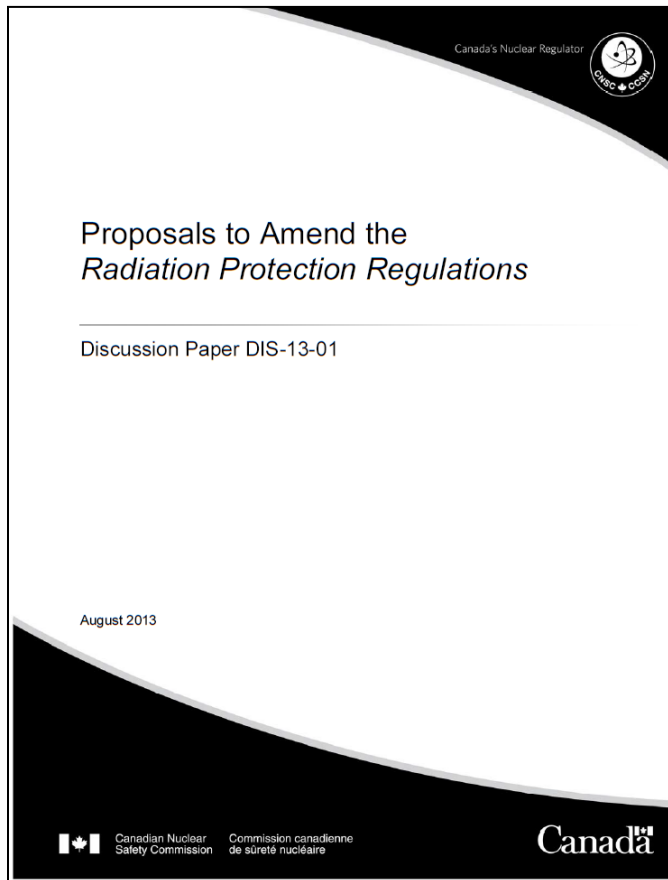
# Rationale for Revision



1. Changes to international benchmarks:
  - new ICRP 103 Recommendations
  - new IAEA and EU basic safety standards (2014)
2. Operational issues identified
3. Fukushima disaster

Source: [ICRP Web Site](#)

# Discussion Paper, DIS-13-01



DIS-13-01 was published on the CNSC website on August 9, 2013 for a 120-day public consultation period:

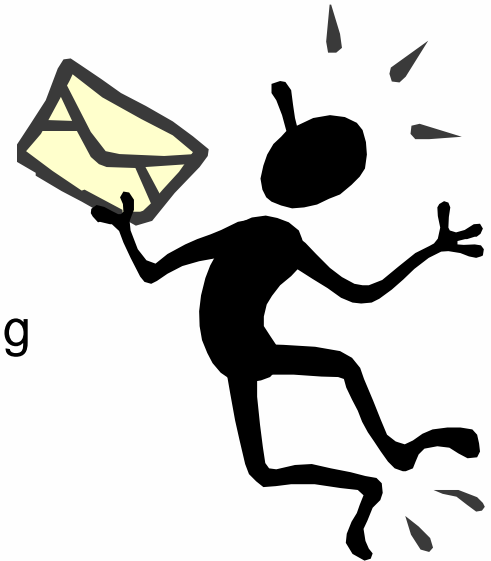
- includes discussion of proposed revisions in ~ 20 sections of the *Radiation Protection Regulations*
- objective was to seek feedback on the proposed revisions



# Discussion Paper Feedback



- ~380 comments from 34 different organizations
- Comments received from:
  - CNSC licensees (NPPs, research reactors, mines and mills, educational institutions, health care facilities/hospitals, industrial radiography, processing facilities)
  - other government organizations
  - associations
  - individuals
- Comments were published on the CNSC website for viewing and feedback for 30 days





# Outreach Activities



- CANDU Owners Group RP Seminar and Workshops (October 2013, August 2013 and August 2014)
- Canadian Nuclear Association Conference, February 2014
- Canadian Radiation Protection Association Conference, May 2014
- Licensee Outreach Program – 14 sessions across Canada (April-June 2014)





# ***PROPOSED AMENDMENTS***

# Proposed Amendments (1)



## Section 7 – Provision of Information

- Expand the requirement to **all “workers”**
- Clarify requirements for informing all workers of their dose information
- Addition of a requirement to provide information to workers of their **responsibilities in the event of an emergency**
- Inform each female worker on **rights and obligations with respect to breastfeeding**, as well as the potential **risks** to breast-fed infants during routine operations and emergencies

Concerns regarding high administrative burden and cost versus benefit

# Proposed Amendments (2)



## Section 11- Pregnant and Breast-feeding Workers

- Addition of a requirement for a female worker to **inform the licensee in writing** if she is breast-feeding
- Addition of a requirement that licensees **adapt working conditions** for breast-feeding workers, if required



Comments relate to privacy issues, practicalities of implementation and scope to include only female nuclear energy workers

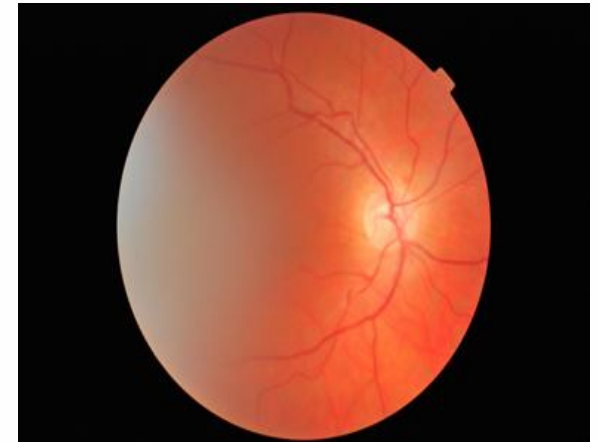


# Proposed Amendments (3)



## Section 14 – Equivalent Dose Limits

- Revise the equivalent dose limit for the lens of the eye for a nuclear energy worker from 150 mSv to **50 mSv in a one-year dosimetry period and 100 mSv in a five-year dosimetry period**



Many respondents identified this as a critical issue with concerns about the scientific basis for the change, current uncertainties for ascertaining dose and unavailability of lens of eye licensed dosimetry

# Proposed Amendments (4)



## Section 15 – Emergencies

Proposed changes to align with current international guidance and to add clarity to requirements, including:

- amendment to restrict doses to a person during an emergency based on specific emergency actions required
- addition of requirements for when emergency dose limits are exceeded
- additional protective measures for pregnant workers
- provision for a person who acts voluntarily to save or protect human life

General support for the proposed change and alignment with international expectations

# Proposed Amendment (5)



## Section 24 - Records to be Kept by Licensees

- Proposal to identify specific time periods for retaining dose records referred to in the *Radiation Protection Regulations*



Stakeholders expressed concerns with aligning with the retention times specified in the IAEA BSS, and sought clarification on the requirement for dose records for all “workers”

# Proposed New Requirements



- **Radiation Detection and Measurement Instrumentation:** Introduce requirements to ensure that instruments are fit for purpose and calibrated in accordance with a recognized standard at a defined frequency
- **Responsibility for RP:** Require that the licensee appoint a person or position to be responsible for implementing the radiation protection program



Source: [Ludlum website](#)



# *Current Status and Next Steps (1)*



## **Section 15 – Emergencies**

- Now included in Fukushima-related amendments package
- Drafting instructions prepared with proposed regulatory text
- Canada Gazette Part I targeted for Spring 2015
- Opportunity for additional stakeholder feedback

# *Current Status and Next Steps (2)*



## **All other amendments:**

- Stakeholder comments have been reviewed
- Seeking direction from management in January 2015
- Publish “What We Heard Report”
- Develop drafting instructions
- Canada Gazette Part I targeted for Fall 2015
- Canada Gazette Part II targeted for Spring 2016

# Conclusion



- CNSC is committed to ensuring its radiation protection requirements remain clear and up-to-date
- Stakeholder feedback is an important part of CNSC's regulatory reviews and their input is actively encouraged
- Regulation making is a rigorous process which involves pre-consultation, drafting, additional public consultation, and the approval of the CNSC Commission and Governor in Council



# ***QUESTIONS AND DISCUSSION***





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