



# A NEXT STEP

Part of Canada's  
Radioactive Waste Review

## CANADA'S INTEGRATED STRATEGY FOR RADIOACTIVE WASTE (ISRW) YOUTH FOCUS GROUP April 28, 2021





# BEFORE WE GET INTO TODAY'S DISCUSSION...

A few housekeeping points...





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Uranium

...the management of  
radioactive waste in Canada...

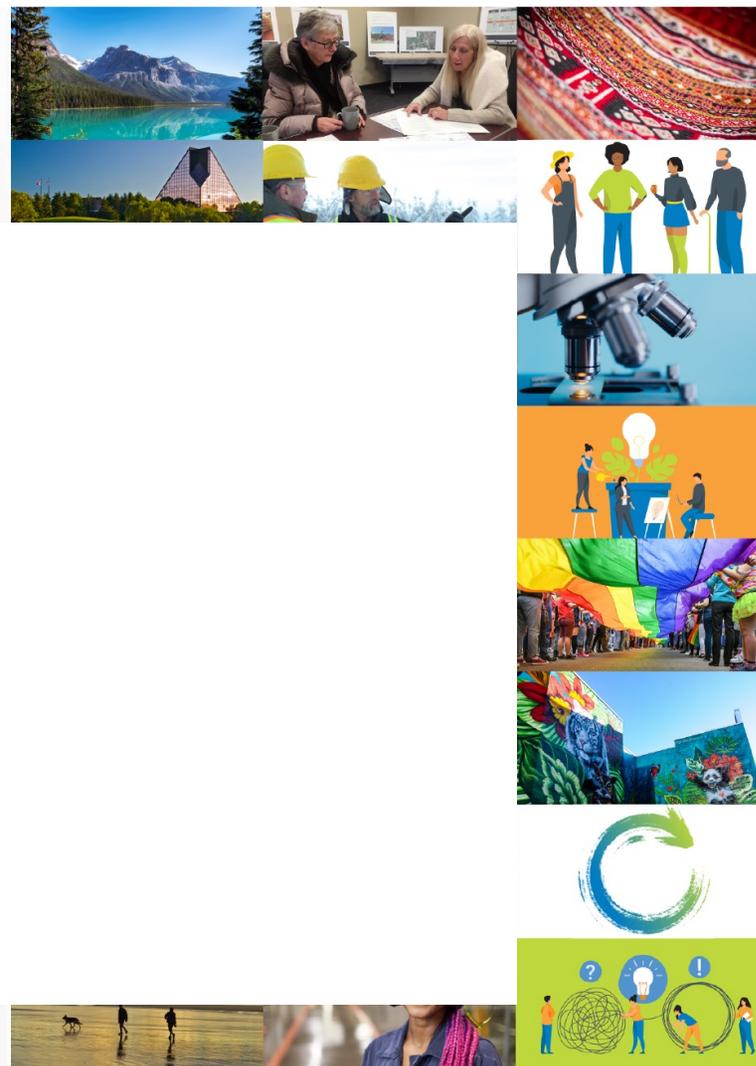
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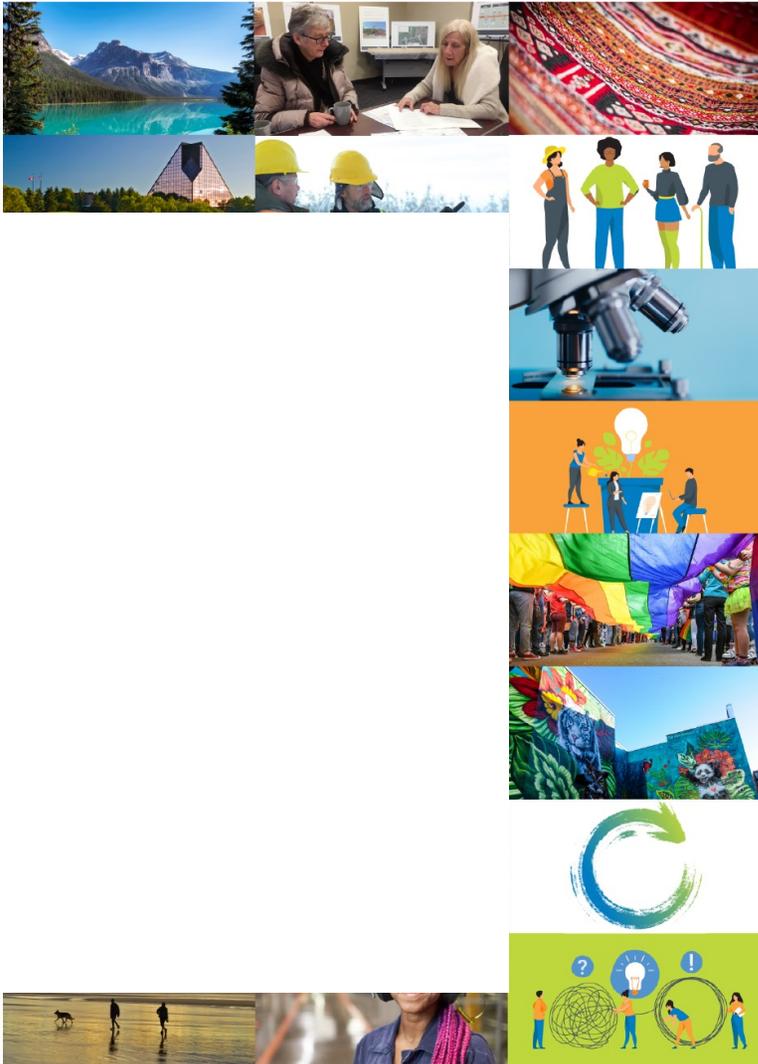
# What are the different levels of radioactive waste.



# How waste is being managed now, and how it could be managed over the long-term.



# How other countries are managing their radioactive waste.



## How the regulations work.

The safe management of radioactive waste is monitored by Canada's federal regulator, the **Canadian Nuclear Safety Commission (CNSC)**.

Canada's regulations are based on global best practices and recommendations from the **International Atomic Energy Agency (IAEA)**.

**Waste owners are responsible** for safely managing waste now and in the future, and for **paying all the costs**.

The CNSC monitors the waste owners to ensure that all regulations are followed. It inspects and reports on facilities where radioactive waste is managed.

The regulations ensure that waste producers:

- **protect** the health and safety of **people** and the **environment**;
- the **security** of our country is preserved; and
- **international commitments** for controlling and managing radioactive waste are met.



# How waste is, and would be transported.

## How is radioactive waste transported in Canada now?

- Over 1 million radioactive packages are transported safely in Canada each year
- CNSC and Transport Canada are the regulators
- Canadian regulations are based on IAEA *Regulations for the Safe Transport of Radioactive Material*.
- There has never been an accident that has resulted in a release of material to the public or environment.

## Are the packages safe?

- The safety is based on the design of the packages, rather than the transport type (train, truck, etc.)
- Package designers assume that accidents will happen, and design them to withstand those accidents.
- The more hazardous the material, the more robust the package is.







# SHAPING THE STRATEGY

*Let's move from talking about values and principles, to the more concrete aspects of a strategy for the long-term management of radioactive waste...*

Canada has a plan for the safe long-term management of used nuclear fuel (high-level waste), and the management of uranium mine and mill waste.

**The question is:**

- How do we best deal with Canada's **Low-Level Waste**, and **Intermediate-Level Waste** over the long-term?



# SITUATION 1

**Which option do you think is best for the long-term management of low-level and intermediate level waste?**

**Option A: Putting low-level and intermediate waste in one or more specially designed disposal facility/facilities.**

**Option B: Continuing to store and monitor low-level waste on the surface as it is now?**

**Option C: Either one is fine, as long as all safety regulations are met.**

**Does your preference change based on whether we are talking about low-level waste as opposed to intermediate-level waste?**



## SITUATION 2

For this next question, we will look at low- and intermediate-level waste separately.

Starting low – which option do you think is best for the long-term management of low-level waste (PPE, clothing, medical devices)...

**Option A:** Building several low-level waste disposal facilities, each located close to where a significant amount of this waste is being produced and stored.

**Option B:** Putting all similar low-level waste into one disposal facility to be shared by the owners and transport the waste from various locations to this facility.

**Option C:** Either one is fine, as long as all safety regulations are met.



# SITUATION 3

Both high-level waste (used fuel) and intermediate-level waste are hazardous for a very long time and therefore need to be placed deep underground for the long term. Some countries have plans to store high- and intermediate-level waste together in the same deep geological repository (or, side-by-side at the same facility).

**Which option do you think is best for the long-term management of intermediate-level waste?**

**Option A: Building separate long-term management facilities, at different locations, for used fuel and for intermediate-level waste.**

**Option B: Building only one long-term management facility for all of Canada, combining used fuel and the intermediate-level waste into a single facility at one location.**

**Option C: Either one is fine, as long as all safety regulations are met.**



# SITUATION 4

Let's talk about how and who should be responsible for implementing Canada's strategy (whatever it may look like). Some countries manage radioactive waste, while in others it's mostly the waste owners. In all cases, strict national and international regulations apply.

Which approach do you prefer for the long-term management of low- and intermediate-level waste in Canada?

**Option A:** Creating a single separate organization to implement Canada's strategy.

**Option B:** Allowing each waste owner to implement its part of Canada's strategy.

**Option C:** Either one is fine, as long as all safety regulations are met.





# BRINGING YOUTH TO THE TABLE

*In the time that we have left, I'd love to get your thoughts and ideas about how to engage with young people, like yourselves, on these same issues...*

- Do you think young people care about how Canada manages radioactive waste?
- How do we bring the discussion on an integrated radioactive waste strategy to young people?
- If you saw an engagement in the future, would you participate?



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**THANK YOU  
MERCI  
MIIGWETCH**



*Your input and participation today was helpful, and very much appreciated!*



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