

Saskatchewan Community Engagement Session 13 October 2021, Summary Report

The objective of the Integrated Strategy for Radioactive Waste's (ISRW) community engagement sessions is to invite and facilitate broad dialogue to develop a long-term strategy for managing Canada's low- and intermediate-level waste. We approach this goal by listening to the perspectives of attendees across multiple Canadian communities. The development of the strategy is grounded in a range of guiding principles and objectives as we explore key questions and issues discussed at our events. This summary report details what we heard from the participants at the sessions focused on the communities of Saskatchewan.

The sessions began with a land acknowledgement, recognizing that if this event were held in person, we would be on traditional Indigenous land and expressing gratitude for that land. This was followed by an introduction and an overview of logistics for the evening. The event offered several opportunities for attendees to participate, give feedback and ask questions about various topics.

At the start of the presentation, we clarified that our focus is on engagement and information sharing/gathering, not consultation.

We heard from participants who were curious to learn more about specific information on nuclear waste disposal plans or storage for Saskatchewan. We explained the main reason we're engaging with Saskatchewan is that the province has expressed interest in potentially pursuing small modular reactors in the future. There's currently no waste from power generation in Saskatchewan. Used nuclear fuel is not within the scope of the ISRW, it is covered by the NWMO's Adaptive Phased Management project.

We heard from participants who wanted to know what is more radioactive: fuel before it used or after it is used? We explained that spent nuclear fuel is more radioactive. In Canada, for commercial reactors, we currently use natural uranium which doesn't require special handling precautions before it goes in the reactor.

Once the group entered the breakout room, attendees were asked to associate which words came to mind when they heard "the management of radioactive waste in Canada."

We heard from some participants who expressed support for any long-term management of radioactive waste to be handled and monitored safely. Some felt the monitoring needs to be continuous and should come with an emergency plan in the event of an extreme catastrophic disaster. We heard from participants who felt that business possibilities could stem from all aspects of long-term nuclear waste management that could create opportunities to pay for itself. Finally, we heard that the recycling of radioactive waste was also top of mind.

We described the principles that guide every aspect of the ISRW project and asked the participants to review these principles and tell us if anything is missing or should be modified.

We asked if the attendees thought the following guiding principles addressed or reflected the most important aspects that a Canadian strategy for the long-term management of radioactive waste should include and what we need to ensure. And having heard from other participants, is there anything they would like added? There were no additions or changes proposed by participants

We asked what the best way to deal with Canada's low-and-intermediate-level waste over the long-term would be.

We heard concerns regarding uranium mine and mill waste. We explained this waste is being disposed of in specially designed facilities, at or near the location where it is generated, in line with international best practice and does not need additional plans. No gaps exist for the waste generated by modern operating mines and mills, and because of this, this waste is out of scope of the ISRW.

We heard from participants a need to minimize the volume and size of low-level radioactive waste, for example by merging it with intermediate-level-waste so it becomes more efficient to handle and monitor. Some participants expressed that they would rather see more small sites closer to where the waste is produced, as this would be easier to manage than all the waste for large regions.

We asked participants about whether they thought one or multiple locations would be better to manage radiative waste.

We heard that from some participants that they did not see transportation as a big risk, and that waste should be disposed of at a single location. We also heard from others that it might be better to have a small number of disposal locations in order to minimize transportation, because Canada is such a vast country.

We heard that we should transport the waste if there's already a safe and viable location. We also heard that we should consider emissions/energy usage from transportation in making our decisions.

Participants expressed that, to reduce overall contamination, we should consider existing brownfield sites rather than new greenfield sites. Specifically, they felt that we should not be transporting waste from an existing site that holds radioactive waste/radioactivity to a new site that has never previously had radioactive contamination.

We heard that co-location of intermediate-level waste with used nuclear fuel seemed efficient.

We asked participants about who (what kind of organization) they thought should be responsible to implement the strategy.

We heard that there was support for a central agency funded by waste owners to implement Canada's waste strategy, with support for the way things are regulated now. Some participants suggested that the Nuclear Waste Management Organization could be the organization who implemented the strategy.

We also heard that the role should mirror the approach used for recycling programs with extended producer responsibility, making waste generators accountable. This could incentivize them to reduce waste and make it economical to handle.

Finally, we heard that the organization should be independent from government, but subject to regulation and oversight by the Canadian Nuclear Safety Commission.

We concluded the event with a question-and-answer period with Karine Glenn, Strategic Project Director.

We heard a variety of questions and comments, such as how incineration is used to minimize waste. We explained that it reduces the volume, but it does not make it less radioactive or have a shorter life. Not all waste can be incinerated e.g. metals, but paper and some liquids can be. There is a waste incineration facility in Ontario, and some waste owners send their waste outside the country for incineration, after which the remaining radioactive ashes are returned to Canada for storage/disposal.

We heard from participants who wanted to understand the risks of transportation of low-level-waste and how that would stack up against the advantages of having the waste stored in one location. We explained that regardless of the type of material or mode of transport there's no difference in level of safety. Radioactive materials have been transported for more than 60 years using the same set of regulations which are internationally accepted. There has never been an accident with any significant release of material to the environment.

Participants asked how much low- and intermediate-level waste there is today and for how long the waste must be isolated. We explained that there is approximately 300,000 cubic metres of low-level waste for which there is no current plan for disposal and is in scope of the ISRW, and which needs to be contained for up to 300 years. For intermediate-level-waste, there is about 50,000 cubic metres and it will require containment for more than 300 years — and up to thousands of years. Intermediate level waste generates little or no heat, whereas high-level waste does generate heat.