

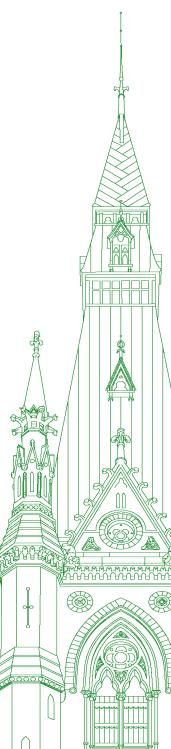
44th PARLIAMENT, 1st SESSION

# Standing Committee on Environment and Sustainable Development

**EVIDENCE** 

## **NUMBER 007**

Thursday, March 3, 2022



Chair: Mr. Francis Scarpaleggia

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• (1830)

[English]

The Chair (Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.)): I call this meeting to order. This is the seventh meeting of the House of Commons Standing Committee on Environment and Sustainable Development.

I can assure members that the sound test with the witnesses has been done, so we're all set for our liftoff here.

I think everyone who is here as a witness has probably been a witness before at this committee or other committees during the hybrid format, so you all know the protocols. Please keep your microphones on mute when not speaking so we can avoid ambient noise, and so on.

Today we have two panels of one hour each.

We have with us, from 6:30 to 7:30, the Canadian Nuclear Safety Commission represented by Rumina Velshi, president and CEO; Ramzi Jammal, executive vice-president and chief regulatory operations officer; and Kavita Murthy, director general, nuclear cycle and facilities regulation.

From the Department of Natural Resources, we have Mollie Johnson, assistant deputy minister, low carbon energy sector; Jim Delaney, director, uranium and radioactive waste division; and Justin Hannah, director, nuclear energy division.

From each group we'll have an opening statement of three min-

Ms. Velshi, I imagine you'll be doing the opening statement. Go ahead, please.

Ms. Rumina Velshi (President and Chief Executive Officer, Canadian Nuclear Safety Commission): Chair and members of the committee, my name is Rumina Velshi and I'm joining you from Toronto in the traditional territory of many nations and now home to many diverse first nations, Inuit and Métis peoples.

Beside being the president and CEO of the Canadian Nuclear Safety Commission, or CNSC, Canada's independent nuclear safety regulator, I'm also currently the chair of the International Atomic Energy Agency, the IAEA, commission on safety standards, which establishes standards for the global nuclear community, including for radioactive waste.

I want to register four points with you today. First, the CNSC was established by Parliament in 2000, by the Nuclear Safety and Control Act, as an independent, quasi-judicial tribunal with the au-

thority to regulate all nuclear facilities and activities in Canada, including radioactive wastes. We report to Parliament through the Minister of Natural Resources. We do not report to the minister. The minister exerts no control over the CNSC's day-to-day activities or on its decisions.

The commission's decisions, which are based on the best available science and an understanding of the risks involved, can be reviewed only by a federal court. These are the cornerstones of our independence.

Second, under the strong regulatory oversight of our highly competent staff, radioactive waste in Canada has been managed safety for decades, including its handling, processing, transportation and storage.

In Canada, licensees are directly responsible for safely managing all of their radioactive wastes. They are required to maintain financial guarantees that ensure they will have the resources to safely terminate their licensed activities and safely dispose of all radioactive material and equipment.

Third, the CNSC has a modern, comprehensive and mature regulatory framework that is consistent with the Government of Canada's nuclear policies. Our framework is also aligned with international standards and best practices. This was confirmed by a 2019 peer review conducted by the IAEA.

Finally, I want to stress to you the importance the CNSC places on ensuring that what we do is open, fair and transparent. Our hearing process is designed to encourage participation from everyone with an interest, especially indigenous nations and communities and the public. We are in communities early to build an understanding of our processes, we communicate with interested participants through a variety of channels and we offer funding to enable full participation.

Let me conclude by emphasizing that our interest is safety above all else.

Thank you.

Meegwetch.

The Chair: Thank you very much, Ms. Velshi.

I'll go now to Ms. Johnson.

Ms. Mollie Johnson (Assistant Deputy Minister, Low Carbon Energy Sector, Department of Natural Resources): Fantastic. Good evening and thank you for this opportunity to speak about nuclear waste management and governance in Canada.

I would like to recognize that I am joining you today from my office in Ottawa, which is in the traditional unceded territory of the Algonquin Anishinabe people.

Nuclear energy is an important part of Canada's energy mix. It currently accounts for 15% of our electricity generation and contributes to Canada's 82% non-emitting electricity supply. While nuclear provides Canada with a source of non-emitting energy, as well as medical isotopes that are vital to both Canada and the world, it also produces radioactive waste, which needs to be carefully managed.

Protecting the health and safety of Canadians and the environment is the government's top priority regarding nuclear energy. The government is committed to continuous improvement with respect to ensuring that safe solutions are in place for managing radioactive waste and decommissioning now and into the future. This commitment is supported by Canada's independent, international peer reviewed nuclear regulator, the Canadian Nuclear Safety Commission, which reports to Parliament through the Minister of Natural Resources and whose regulatory decisions are only reviewable by the Federal Court.

The most recent review by the International Atomic Energy Agency found that Canada has a comprehensive framework for nuclear and radiation safety covering current facilities and activities. It also noted that the CNSC strives to continuously upgrade its regulatory framework to address new challenges in relation to upcoming technologies, such as small modular reactors.

Our commitment to continuous improvement includes ensuring a strong radioactive waste policy is in place that further provides Canadians with confidence in the long-term management of all of Canada's radioactive waste.

The government is evaluating Canada's current radioactive waste policy, and we are developing a comprehensive new policy to ensure that we continue to have a strong foundation for the ongoing use of nuclear energy. That is why we launched an inclusive engagement process to develop a modernized policy for radioactive waste management and decommissioning, including any waste from future technologies, such as small modular reactors.

From November 2020 to May 2021, we met with and received written feedback from indigenous peoples, public interest groups, waste producers and owners, other levels of government and other interested Canadians on how they would like to see our radioactive waste policy modernized. From that feedback, we released on February 1—just about a month ago—a draft policy for radioactive waste management and decommissioning with a 60-day public comment period. We are seeking written feedback until April 2 from the public on this draft policy, which we then plan to finalize before the end of the year.

Our goal is to inform a modernized radioactive waste policy that continues to meet international standards based on best available science and that reflects the values and principles of Canadians, including our indigenous peoples.

I'm really pleased to be here tonight and to be joined this evening by Jim Delaney and Justin Hannah, directors from our nuclear group. We welcome any questions that you might have. Thank you very much.

• (1835)

The Chair: Thank you very much.

We'll go to questions. We have Mr. Seeback, for six minutes please.

**Mr. Kyle Seeback (Dufferin—Caledon, CPC):** Great. Thank you very much.

I want to start with the CNSC.

How far along in the process are you for finding a host site for the long-term geological repository?

Ms. Rumina Velshi: Finding a site for a long-term fuel depository is not something that's in the CNSC's mandate. That is the mandate of the Nuclear Waste Management Organization. The CNSC's mandate is to do the licencing of that particular facility, and the NWMO did appear before this committee a few weeks ago, and we are expecting them to start their impact assessment. We're expecting them to select a site in 2024 and to start an impact assessment after that.

Mr. Kyle Seeback: One of the things that we're discussing here at the committee is whether or not the reporting should be through the Minister of the Environment to Parliament, as opposed to through the Minister of Natural Resources to Parliament. Does the Minister of Natural Resources have any role or decision-making in your organization?

**Ms. Rumina Velshi:** None whatsoever. As I mentioned in my opening remarks, the decisions made by the commission, which is a quasi-judicial tribunal, can be reviewed only by the Federal Court, so there is no intervention, no influence by the minister in our decisions.

If you like, I can elaborate further on how that relationship is with NRCan and other departments and what the impact of that reporting is.

**Mr. Kyle Seeback:** Please do. That was actually my next question.

**Ms. Rumina Velshi:** As you rightly said, we report to Parliament. That is per our enabling legislation, the Nuclear Safety and Control Act. The minister, as I said, has no role in our decision-making or in our day-to-day operations.

The CNSC has horizontal relationships with many departments—including the two witnesses following us—such as Environment and Climate Change Canada, the Impact Assessment Agency, Health Canada, Transport Canada, the Department of Fisheries and Oceans, as well as our provincial agencies in environment and labour.

I want to emphasize that one reason I've heard in previous appearances is a concern about optics; that NRCan is responsible for promotion, and why would the regulator be reporting to that? However, as I've explained, our reporting is, in a way, strictly for us to get to Parliament with no political interference in our decision-making.

We did some public polling in 2020, when we reached out to Canadians, civil society organizations, licensees, host communities, scientists and intervenors, because we were trying to get a baseline on what Canadians' confidence and trust is in the regulator. The reporting relationship was never raised as an issue by anyone. Similarly, the international review that was done in 2019 never raised our reporting as a concern in terms of our independence or as compromising it in any way.

I've been a commission member and a president for 11 years. Whichever minister we report to, that's a decision of the Governor in Council. I can't see it making any difference in how we carry out our mandate.

I hope that helps.

**(1840)** 

Mr. Kyle Seeback: Yes, it does. It's very helpful.

One of the questions I asked of our panellists on Tuesday was whether the system works. Are there any improvements you can think of that you might suggest? I'm going to ask you the very same question, because it's very important.

Ms. Rumina Velshi: Let me give you the regulator's perspective. The system works. You just need to look at the track record. There has not been an incident, certainly in the last 20 years since the Nuclear Safety and Control Act came into place—and it could be even longer than that—where waste management has impacted safety or the environment. The track record speaks for itself.

You've heard about the international reviews that have given us the confirmation of how robust our framework is, how strong the oversight is and how we know so well what and where the waste is. We have financial guarantees to make sure that any future liabilities have been looked after.

Frankly, if you look at any other industry or any other energy sector, waste is not managed from cradle to grave as well as it has been in the nuclear sector. It is a very highly regulated sector, and appropriately so.

If you ask me if there are opportunities for improvement, all of those are things that are under way right now. Finding long-term solutions for the management and disposal of waste is certainly one. Another one I would add is that there is public angst around radioactive waste. I believe the sector needs to do a much better job at listening to what those concerns are and trying to address them. However, overall, I think it works well.

The Chair: Thank you very much.

We'll go to Mr. Longfield.

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Mr. Chair.

I'm going to start with Mrs. Velshi. First of all, thank you for your years of service in the role you're fulfilling.

As a party to the International Atomic Energy Agency's Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, we have to do this comprehensive review, which we did in April 2021 on our waste management governance.

[Translation]

The Chair: Ms. Pauzé wishes to raise a point of order.

**Ms. Monique Pauzé (Repentigny, BQ):** Could Mr. Longfield speak without his mask?

This seems to be causing difficulties for the interpreter.

[English]

The Chair: Can you take your mask off when you speak?

**Mr. Lloyd Longfield:** I will if it helps and you're comfortable with it, and if I haven't lost a lot of time.

The Chair: We'll start over.

**●** (1845)

Mr. Lloyd Longfield: Thank you.

It's my first time in a committee room in two years. I don't know what the protocols are sometimes.

As a party of the International Atomic Energy Agency's Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, we have to do this comprehensive review that you've mentioned. The last one was published in April 2021.

Is this like an audit where there are action items that come from these reviews? Are we meeting our international commitments?

Are there any highlights? You've mentioned a few in the testimony you just gave.

Ms. Rumina Velshi: Thank you, Mr. Longfield.

I'll start answering that question and then I'll ask Mr. Jammal to add some more details to this.

As part of the convention we have signed, we do need to report every three years to this international body of peers on our used fuel and radioactive waste management. As you mentioned, the last report was in 2021, though the convention itself, because of the pandemic, was deferred.

It is an opportunity for peers to review the entire management system for waste management in Canada. We get feedback from them. We get questions from them. Areas for improvement are identified. In the spirit of transparency, it is presented to the commission as a public hearing meeting. By the way, this is not just the regulator. The entire sector presents and appears for this convention and the peer review. The feedback we get from our peers is posted, so there is great transparency on what we're doing well and what we can do better.

I'll turn to Mr. Jammal, who can probably give you some specific examples of the kind of feedback we have gotten and actions we have taken as a result.

**Mr. Lloyd Longfield:** Could I have that in maybe 20 seconds, if possible? I have another question to ask another witness.

Thanks.

Mr. Ramzi Jammal (Executive Vice-President and Chief Regulatory Operations Officer, Canadian Nuclear Safety Commission): Thank you, Madam Velshi.

In 20 seconds, the process of the joint convention is established in accordance to a treaty. We call it a "convention", but it is a treaty under the UN. The process is very much formalized.

You asked a question about what we call "areas for improvement". It comes out as challenges. At the same time Canada and the CNSC receive [Technical difficulty—Editor]. At the last review of the convention we received good practices and areas for improvement.

We are legally bound to respond to these at the next meeting [Technical difficulty—Editor] these actions. It is not up to us to say that it's closed. The peer review process mentioned by the president determines the closure and the adequacy of the closure of these challenges.

#### Mr. Lloyd Longfield: Thank you.

This study is on governance and you've just described the governance right there, so we could probably close our study. No, I'm just kidding.

It is very important to know that it's an independent governance, that it's not politically interfered with and that it's peer reviewed from international bodies. Thank you for that for our reporting.

Speaking of our reporting, I will go over to Ms. Johnson.

The review you're doing sounds very similar to the review that we're doing. Parliamentarians can get witnesses in, but I'm certain that the review we're doing isn't going to be as thorough as what you are in the process of, with the 60-day comment period coming back.

Is there anything our report could add to the review you're doing? Is this report that we're working on something that would be of value to you? I can't ask you to write our report, but is there an area of concern that we should make sure we cover in our report?

**Ms. Mollie Johnson:** Ultimately, we want to ensure that Canadians see themselves in the policy in the work they're doing.

To the questions that you're exploring, and equally the questions that we're exploring, it's how we can ensure that the three elements in the draft policy that really set out the vision and the federal commitments of health, safety, security and protection of the environment; openness, transparency and public engagement; and global excellence in the fields of radioactive waste management and decommissionings are being captured in the work they're doing, and that we can hold and sustain the long-term trust as we're moving forward.

My hope is that the work is complementary and that it can be an additive to the work we're doing.

**Mr. Lloyd Longfield:** Building trust seems to be one of the major themes. We had a lot of conflicting testimony. I'm certain that you probably would have experienced some of the same.

Ms. Mollie Johnson: I'd say we've heard a lot of things.

We've heard about the role that nuclear can play in Canada's energy mix. We've heard different perspectives and interests of indigenous people and the importance of setting measurable policy goals.

If you read all the reports that are on our website right now, they show two sides, a spectrum of perspectives, when you look at the issue. I think that demonstrates that there is no monolithic or no single view on these matters.

(1850)

Mr. Lloyd Longfield: Thank you very much, Mr. Chair.

The Chair: Thank you, Mr. Longfield.

Go ahead, Madame Pauzé.

[Translation]

Ms. Monique Pauzé: Thank you, Mr. Chair.

My question is for Ms. Velshi.

We agree that the Canadian Nuclear Safety Commission protects citizens and the environment.

[English]

**Ms.** Laurel Collins (Victoria, NDP): I have a point of order, Mr. Chair. There is no interpretation.

The Chair: Is it okay now?

Are we getting the signal?

[Translation]

Do those listening to the English interpretation hear me?

[English]

Can you hear me in French?

[Translation]

Ms. Monique Pauzé: I was saying that my question is for Ms. Velshi.

As we know, the Canadian Nuclear Safety Commission has a responsibility to protect citizens and the environment. In your opening remarks, you said that it was very safe and that safety came first.

I want to believe you, but I have some serious criticisms for you.

First, the commission has been pushing to exclude small modular reactors from environmental assessments. In addition, the commission wants to authorize a waste burial project near Rolphton, which is in breach of the safety standards of the International Atomic Energy Agency, the IAEA. Finally, you have a responsibility to inform the public. You said it was important to do so, but you have not disclosed information about the import of spent cobalt-60 sources and the cost of storing them in Canada.

I want to believe you when you say that safety is important to you, but I have reservations about that.

What do you say to these criticisms?

[English]

Ms. Rumina Velshi: Thank you, Madame Pauzé.

Let me just make sure I have understood your questions correctly. Maybe I'll start with the last one. It was about cobalt 60 imports and how to ensure safety on that.

You mentioned Douglas Point, I believe, and also something about SMRs, but I'm not quite sure what the question was on that.

Could I ask you to repeat that, please?

[Translation]

Ms. Monique Pauzé: Yes, of course.

The commission campaigned to exclude small modular reactors from environmental assessments.

In my opinion, this does not ensure the safety of citizens.

[English]

**Ms. Rumina Velshi:** Let me start with that last one on the impact assessment and which projects fall under an impact assessment or if they don't meet the threshold. I'll then review it by the Canadian Nuclear Safety Commission under our nuclear safety—

[Translation]

Ms. Monique Pauzé: I'm sorry to interrupt, but I can't hear the interpretation.

The Chair: Is the interpretation back?

[English]

Are we back on?

[Translation]

Ms. Monique Pauzé: Yes, it's working now.

Thank you.

[English]

**Ms. Rumina Velshi:** The question about why SMRs don't undergo an impact assessment is that there's been a threshold that's been established based on the risk level. Perhaps it's a question better

asked of the Impact Assessment Agency. It's not the CNSC being militant about it; this is part of the Impact Assessment Act and the project that's in there.

I want to reassure you and Canadians that whether a project is reviewed under the Impact Assessment Act—

[Translation]

Ms. Monique Pauzé: Ms. Velshi, I...

[English]

Ms. Rumina Velshi: —or by the CNSC, there is a level—

[Translation]

**Ms. Monique Pauzé:** Ms. Velshi, forgive me for interrupting you, but my time is running out quickly.

You said you wanted to reassure Canadians, but you refused to make the waste acceptance criteria public. Several people have asked for the revised waste acceptance criteria, but they have not received them. In our view, the document should be incorporated into the environmental assessment document because it specifies the waste acceptance criteria. But they refused to make it public.

How can the commission improve its relationship with the public if it refuses to disclose certain information to the public?

• (1855)

[English]

**Ms. Rumina Velshi:** If it's waste criteria you're asking about, those are in our regulatory documents. We specify what the classification is. It's consistent with international standards, and that is public.

Again, Madame Pauzé, I'm sorry but I'm not quite sure what exact issue you are raising. I will ask my colleagues. Maybe Ms. Murthy has a better insight into what issue you're getting at.

Ms. Murthy.

Ms. Kavita Murthy (Director General, Nuclear Cycle and Facilities Regulation, Canadian Nuclear Safety Commission): Thank you.

The question is about waste classification and regulatory documents—

[Translation]

**Ms. Monique Pauzé:** I am talking about the revised version of the waste acceptance criteria, not the old version. Witnesses have asked to participate in consultations on this revised version, but this has not been granted.

[English]

**Ms. Kavita Murthy:** It is not clear to me what documents you are referring to, Madame Pauzé, so respectfully, if you can send us a list of the documents that were not provided, we can provide them. I can assure you that all of the waste regulatory documents are—

[Translation]

**Ms. Monique Pauzé:** I'm talking about one document, madam, one document, the waste acceptance criteria. I'm talking about the revised version, which people don't have access to.

Mr. Ramzi Jammal: I can respond, Mr. Chair.

The Chair: Go ahead.

Mr. Ramzi Jammal: Pardon?
The Chair: Go ahead, Mr. Jammal.

Mr. Ramzi Jammal: Thank you, madam, for your question.

All of the documents are fully available. As for the consultations, they were already underway with the Canadian Nuclear Safety Commission.

What the commission has approved has already been made public. Everything is available on our website. If you are looking for a particular document, we can provide a hard copy to the committee.

Ms. Monique Pauzé: I guess my six-minute speaking time is up.

The Chair: Yes, that's correct. Since there were sound cuts, take fifteen seconds to comment. We don't have time for a question, though.

**Ms. Monique Pauzé:** My comment is that I know of several groups who have asked to have the revised version of this document and they have not been given it.

The Chair: Perfect, thank you. Noted.

Ms. Collins, you have the floor for six minutes.

[English]

Ms. Laurel Collins: Thank you, Mr. Chair.

I wanted to start by saying that it is disappointing that neither the natural resources minister nor the Minister of Environment could make time to appear at our committee, and I say this especially since it is such an important topic.

My first question is for the CNSC. It is nearing the conclusion of its environmental assessment of CNL's proposed near-surface disposal facility at Chalk River. CNSC staff recently recommended approval, and the first of two licensing hearings has taken place.

Is there any input that could be received at these public hearings that might lead the CNSC to decide not to proceed with the project, or has the decision effectively been made?

**Ms. Rumina Velshi:** While, as you've rightfully identified, this is a matter in front of the commission, it would not be appropriate for me to give you details of the particular application.

Ms. Laurel Collins: I don't need details because we have such a short time—

Ms. Rumina Velshi: Right.

The interventions are due by the middle of April, so yes, the commission, starts its two-part hearing at the end of May. That is when we are going to be listening to the interventions and then make a decision only after we've heard all of those different perspectives. Absolutely no decision has been made. That's why it's a two-part hearing, to allow intervenors to submit.

Ms. Laurel Collins: Thank you.

The Kebaowek First Nation has asked that the hearings be halted until a consultation framework between them and the CNSC is in place. This has been a long-standing request. Can you talk a little bit about why this request has not been met when reconciliation and meaningful consultation must be the starting point for any government decision that affects indigenous peoples' lands and rights?

**Ms. Rumina Velshi:** Ms. Collins, I think you have a copy of the commission's decision on that request that we had for an adjournment. As you would have read in that decision, or in that letter from the registrar, it is part of the commission's proceedings to see the level of engagement that has happened and whether it has been adequate to meet the honour of the Crown, so that is part of the hearing. That decision was made consistent with the rules of the commission's proceedings.

**(1900)** 

**Ms. Laurel Collins:** The commissioner of the environment and sustainable development will be tabling an audit report on nuclear waste management later this year. These audits typically involve the investment of several years of investigation and research. Wouldn't it make more sense to consider the audit's findings before making important decisions related to the disposal of radioactive waste, particularly at the facility at Chalk River? Wouldn't it be a missed opportunity to incorporate lessons learned and best practices going ahead?

**Ms. Rumina Velshi:** Ms. Collins, that audit is under way. As you know, the CNSC is one of the three parties that's being reviewed.

The audit's scope does not look at the commission proceedings side of things, whether it's around a hearing process or the decision-making process. The focus is very much around our oversight and enforcement. [Technical difficulty—Editor] the Auditor General knows about the hearing and around the timeline for the decision that indicated no concerns with that.

Any improvement that they identify will absolutely be taken into consideration, but it will be very much around that.

Ms. Laurel Collins: Thank you so much.

If the commission approves CNL's proposal, would that set any precedents for future nuclear waste disposal projects?

**Ms. Rumina Velshi:** If the question is on whether, if this particular application is accepted or denied, that means any other nuclear service disposal facility—

Ms. Laurel Collins: Does it set any precedents?

**Ms. Rumina Velshi:** No. Each application is assessed on its own nerif.

Ms. Laurel Collins: Thank you so much.

In 2021 the City of Ottawa passed a resolution urging the CNSC and CNL to stop importing radioactive waste from other provinces to Chalk River; to increase safeguards; to protect the Ottawa River during site demolition and waste transfer activities; and to prevent precipitation from entering the near-surface disposal facility. Can you explain what actions have been taken to address these concerns?

**Ms. Rumina Velshi:** When it comes to imported waste, from the CNSC's perspective we make no distinction on whether the waste is domestic or imported. It just needs to be managed safely.

The question around a decision on whether the import of radioactive waste should be allowed is more of a policy decision. Maybe you want to ask Ms. Johnson.

Ms. Laurel Collins: I hear that. Thank you.

The other part was in terms of the safeguards to protect the Ottawa River.

**Ms. Rumina Velshi:** Maybe I'll turn to Mr. Jammal to give you a detailed response to that.

Ms. Laurel Collins: Great.

Could you keep it to 30 seconds or less?

**Mr. Ramzi Jammal:** The protection of the environment is key for every assessment and oversight. It doesn't matter if the material is being transported or not.

On safeguards, again, there is an obligation under the IAEA to safeguard the material, if that's the question. IAEA inspectors come to sites in Canada and verify the safeguards with respect to inventory. Safeguarding the environment is our priority, if that was the question. Millions of packages are being transported around the world, including over a million on a yearly basis in Canada, and the protection of the environment is inherent to the design of the packaging.

The Chair: Thank you.

We'll go to Mr. Mazier.

Mr. Dan Mazier (Dauphin—Swan River—Neepawa, CPC): Thank you, Chair.

Good evening, everyone.

First, to the safety commission, has the transportation of nuclear waste resulted in any radioactive incidents in Canadian history?

**Ms. Rumina Velshi:** Mr. Mazier, the transportation has an impeccable record in over 60 years of transportation. As Mr. Jammal just said, globally there's over 10 million packages a year, and in Canada over a million a year. There has not been an incident that has impacted the environment or the safety of individuals.

Mr. Dan Mazier: Excellent. It's very safe transportation.

How many civilians have been harmed by nuclear waste in Canada?

Ms. Rumina Velshi: Zero.

Mr. Dan Mazier: Wow. That's good.

How much has the government invested in research and development in reusing and recycling spent nuclear fuel?

**Ms. Rumina Velshi:** It's not a question that I can answer. Maybe Ms. Johnson can answer that. It's not something the regulator has knowledge on.

• (1905)

**Ms. Mollie Johnson:** I don't have a number off the top of my head, but it's something we can look at and get back to the committee on.

**Mr. Dan Mazier:** Perfect. If you could forward that, it would be great.

Next, to NRCan, it's clear from previous witness testimony that SMRs are a major opportunity in addressing climate change. Is SMR waste disposal different from standard nuclear waste disposal? If so, will the government be presenting a specific plan for the disposal of SMR waste?

**Ms. Mollie Johnson:** That's great. I'm going to ask Mr. Hannah to speak about SMRs and the waste they produce, then Mr. Delaney can speak to the disposal side.

The Chair: Mr. Hannah.

Mr. Justin Hannah (Director, Nuclear Energy Division, Department of Natural Resources): There are a number of technologies that are currently being considered for deployment in Canada. They do have a number of various characteristics that will be considered as part of their waste disposal processes. Currently within the SMR action plan and in consultations with industry, the Nuclear Waste Management Organization is working with various developers to understand their waste, to invest in the R and D required to contain, manage and safely dispose of this waste.

However, in the fullness of time, it will take a number of years to decide in the end what waste will be used for SMR deployment in Canada. It is still not determined, of the multiple technologies that are being deployed in Canada, which ones will actually be built and which ones will produce waste that will ultimately be put in the final waste repository.

Mr. Dan Mazier: Are there any other comments?

Mr. Jim Delaney (Director, Uranium and Radioactive Waste Division, Department of Natural Resources): I'll jump in as well. To build on what Justin had mentioned as well, under the Nuclear Fuel Waste Act they would be responsible for management of spent fuel regardless of whether that's the existing CANDU fuel or SMR waste down the road.

There was a question about the funding. I know there was some funding to the Moltex project through ISED's program, and some of that funding as well is to actually do the research to better understand the waste streams that would come [Technical difficulty—Editor]

**Mr. Dan Mazier:** Mr. Delaney, can you get those numbers to the committee? Can you get hold of how much money was actually spent on the research for it so far? Would that be possible?

Mr. Jim Delaney: Yes, we can come up with the values for sure.

**Mr. Dan Mazier:** I guess the SMR research is very much in the infancy of trying to find out what we're going to do with the waste and even what kind of waste is going on there. The industry is generally looking at it, so that's good.

I'll go back to safety. If no community agrees to be the host of DGRs, what is the government's plan for storing high-level radioactive waste?

**Ms. Mollie Johnson:** The adaptive phased management process has been under way since it was adopted in 2007, but ultimately if communities decide that they do not want to take that on and the decision, as Ms. Velshi noted, was for 2023, it will continue to be stored in the interim facilities as it is done right now.

The Chair: Mr. Mazier, you have 10 seconds.

**Mr. Dan Mazier:** I guess there is no plan. If these communities decide not to take it, there is no plan, really. It will just keep on being stored on the surface. We'll be right back to where we started from, basically, or is there a plan B?

The Chair: Give a yes or no answer, please.

Ms. Mollie Johnson: Mr. Delaney.

**Mr. Jim Delaney:** I would just say that the NWMO would continue to work with Canadians to decide the best path forward for that waste disposal.

The Chair: Thanks very much. Mr. Jim Delaney: Thank you.

The Chair: We will go to Ms. Taylor Roy.

Ms. Leah Taylor Roy (Aurora—Oak Ridges—Richmond Hill, Lib.): Thank you very much.

I'll just follow up on Dan Mazier's question.

Let me start by thanking the witnesses for being here this evening. I would in particular like to recognize the work that Ms. Velshi has done with women in STEM as well and the support she has given to that important area.

On the issue of the deep geological storage site, if indeed there isn't one, if there is no community found to host this site, what impact do you think that would have on future nuclear energy sites in Canada?

• (1910)

Ms. Mollie Johnson: Jim, do you want to jump in?

Mr. Jim Delaney: I would reiterate as well that the NWMO would continue to work to identify an informed and willing host community for the disposal of that radioactive waste. The process itself would continue on. It would just mean either re-engaging with some of the communities that it has already engaged or going back and identifying other communities that might be an informed and willing host community.

Ms. Leah Taylor Roy: Thank you.

Would that in any way give you pause in thinking about small modular reactors or new nuclear facilities if indeed no community has stepped forward or agreed to host a deep geological repository and given that it seems there's not really a plan B right now in terms of dealing with the long-term storage of this waste?

**Ms. Rumina Velshi:** Ms. Taylor Roy, maybe I can give you the regulator's perspective on this.

As you have heard many times, the used fuel waste is stored safely and can be stored in the same manner for decades while the NWMO restarts its process to find a willing host community. From a regulator's perspective, that's not a prerequisite for nuclear generation.

I do want to thank you for acknowledging my work on women in STEM.

Ms. Leah Taylor Roy: You're welcome.

If you're saying that the waste can be safely stored without a deep geological repository, why are we searching for one?

**Ms. Mollie Johnson:** Just to begin, when we look at the best practices internationally, the deep geological repository has been identified as a best practice across international standards. It is the approach that was agreed to in 2007. That was the adaptive phased management approach.

The NWMO—they were here before you previously—has been doing this work with communities in a way that is identifying a number of communities that may be willing partners. They identify the opportunities, the risks, the benefits and also the financial benefits that would come along with being a host community. Then they really identify the communities that wish to be that host.

**Ms. Leah Taylor Roy:** Thank you. I understand the process. I was just wondering....

This is just a best practice. You're saying that Canada doesn't have to adopt this best practice when, in fact, there is not a community that is willing?

**Ms. Mollie Johnson:** At this point there are two communities that are still interested in becoming a host community.

**Ms.** Leah Taylor Roy: I'm just asking in the eventuality, since we don't have one right now.

That also goes to a question I have about the approval of CNL's proposal to build and operate the engineered containment mound at Chalk River.

For our study, I was wondering if there are any kind of lessons learned or reflections on how you would deal with another approval of this sort, having gone through this process and nearing a final decision. Perhaps are there any that you would apply to the deep geological repository—the community involvement or the engagement with indigenous groups, etc.?

Do either of you have any recommendations for us in terms of how these consultations should be handled given what you have learned from this experience at Chalk River?

The Chair: You have 30 seconds.

**Ms. Rumina Velshi:** Maybe I will start and Ms. Johnson can go after.

We are constantly learning. Certainly around reconciliation, it's a journey. I know the next time around we will maybe start a lot earlier, engage much further and just be better partners in this and have stronger relationships than have been established.

All I can say is that we're constantly improving.

[Translation]

The Chair: Thank you.

Ms. Pauzé now has the floor for two and a half minutes.

Ms. Monique Pauzé: I would like to ask Mr. Jammal something.

Earlier he referred us to his website. But I would like to ask him to send the document I was talking about to the clerk: i.e., the acceptance criteria that have been established for the near-surface waste management facility that is planned for Chalk River. We don't want the old version, we want the new version.

I now turn to the Department of Natural Resources officials.

Ms. Johnson, just as the committee is trying to shed light on the prevailing failures, and perhaps lack of transparency with respect to waste, your department is revising the policy framework on this issue; the Nuclear Waste Management Organization is developing a strategy, and the Office of the Auditor General of Canada, through the commissioner, is preparing a report.

But the Canadian Nuclear Safety Commission is already conducting hearings on the proposed near-surface waste management facility at Chalk River. At the same time, it is also conducting hearings on the Rolphton reactor's decommissioning, which is contrary to what the international agency says.

In your view, shouldn't we first suspend the projects, which don't have a licence, pending the findings of the Auditor General's office and the work of our committee, out of respect for these people and for the MPs who are working on this?

Then decisions will be made about the storage of radioactive waste.

• (1915)

[English]

**Ms. Mollie Johnson:** On this issue, there are a number of times the federal government undertakes reviews and simultaneously has the obligation to continue to undertake its responsibilities and manage the business in front of it. This is one of those cases. Our perspective on this is that the policy will continue to move forward. We, as the CNSC and others are subject to the performance audit of the CESD. When those results are available and the review is complete, that will put us in a position to make the adjustments at that time.

[Translation]

The Chair: You have 10 seconds left for a comment, Ms. Pauzé.

**Ms. Monique Pauzé:** We should take into account the work that we do here very seriously, and the work that the Auditor General does through the Commissioner of the Environment.

As time is short, I'm just going to ask for one more document.

How much money does the country make from the import of nuclear waste? What are the profits?

The Chair: Thank you.

Ms. Collins, you have the floor.

[English]

**Ms. Mollie Johnson:** To my knowledge, I'm not aware of profits that—

The Chair: We have to go to Ms. Collins right now. Those were the two and a half minutes that Madame Pauzé had—even more than two and a half minutes. Maybe you could work that answer in at another time.

We go to Ms. Collins now for two-and-a-half minutes.

Ms. Laurel Collins: Thank you, Mr. Chair.

Maybe we could get that in writing from the department.

I also had mentioned in my previous comments the City of Ottawa's resolution and the safeguards to protect.... I didn't actually hear about any additional actions that have been taken. If there are any additional actions that have been taken since that resolution, I'd love it if the witnesses could follow up in writing on that to our committee.

[Technical difficulty—Editor] for small nuclear reactors reprocessing waste. [Technical difficulty—Editor] as Dr. Ramana stated, "reprocessing makes little difference to long-term management of nuclear waste while making nuclear weapons proliferation easier." He mentioned that Canada shared technology in the past with other countries, who then used it in their nuclear weapons programs. Especially given Putin's recent threats of nuclear warfare, this is a deep concern.

To any of the witnesses, if you are thinking through technological developments around small nuclear reactors and waste, how can we mitigate the threat of nuclear weapons proliferation?

**Ms. Mollie Johnson:** Maybe just to start, Canada remains committed to the Treaty on the Non-Proliferation of Nuclear Weapons and the full implementation of all of the safeguards from the IAEA. Safety and those agreements that we are party to are primary.

There are SMR technologies that do look at reprocessing, but as we mentioned earlier, those are under development and none of that would overtake the agreements we have.

Ms. Laurel Collins: Thank you.

You mentioned that the International Atomic Energy Agency had an Integrated Regulatory Review Service, which conducted a peer review of Canada's radioactive waste policies in 2019. They found that the government should enhance the policy and the strategy for radioactive waste management and that the CNSC should consider better aligning its radiation protection requirements with IAEA safety standards. Can you speak to that and how those concerns have been addressed?

• (1920)

The Chair: You have 15 seconds, please.

**Ms. Mollie Johnson:** With respect to the part we are accountable for, the policy review, we're in the process of doing that work now. The IAEA will be back in 2023 and we look forward to being able to talk to them about the work we have done.

The Chair: Perfect.

Mr. Dreeshen for five minutes, please.

Mr. Earl Dreeshen (Red Deer—Mountain View, CPC): Thank you very much, Mr. Chair, and thanks to the witnesses for being here today.

Ms. Velshi, you had mentioned the CNSC framework was also aligned with international standards and best practices. And, of course, we heard testimony from Mr. Dermarkar saying the International Energy Agency wrote a country report for Canada that "encouraged Canada to help the rest of the world pursue nuclear through both SMRs and CANDU technology, because they see Canada as a tier-one nuclear nation."

Could you talk a bit more about where Canada might be able to take the lead on innovation in nuclear energy? I know there was a discussion earlier about the deep geological depositories and the fact there are best practices internationally.

We've had discussions on glaciation and so on. I know that sounds farfetched. However, if you're talking about something that's tens of thousands of years down the road, you have to think about that. We've done so many things in Canada that are world class, whether it be our renewable resources or our nonrenewable resources. I wonder if you could just speak to where we actually lead in nuclear energy in the world.

**Ms. Rumina Velshi:** Thank you very much for that question. I will start and then I'll get Mr. Jammal to add to it.

Maybe I'll just start with SMRs since your question began with that. You know that OPG has made a decision on building an SMR at the Darlington site. This is going to be the first grid level SMR in the western world in a G7 country.

Canada is leading that, and the CNSC as a regulator becomes the lead regulator for the world. There are other countries looking at Canada to see how we are licensing this new technology and how they can benefit from that—how they can piggyback on that. We have collaboration agreements with the U.S. regulator as well as the U.K. regulator, so that we can work jointly and share our efforts together.

Certainly on the SMR front we are taking the lead. We invariably get invited to lead many of the international fora on that. There are many other areas. Maybe I'll ask Mr. Jammal to give you a couple more examples.

**Mr. Ramzi Jammal:** You asked about the lead. At the last IRRS mission we did receive a good practice rating under the international peer review. That means other member states should take into consideration the success of the Canadian model from a regulatory perspective.

I personally lead many missions internationally as the lead under the IEA, and I can attest to you that many of the countries that we evaluate look to Canada with respect to our advancement with our regulatory framework and the independence of the commission. We have quite a bit of collaboration internationally for the existing fleet and for any new innovation that's coming across. We collaborate. As a matter of fact we have to turn away certain regulators because our capacity is limited. We take pride in the advances we have in place, and we'll continue to lead. We are the lead regulator of the G7 currently that is evaluating SMR on Canadian territory. We do not work in isolation. We work in collaboration internationally and nationally.

Mr. Earl Dreeshen: Thank you very much.

Of course, Ms. Velshi, you had also mentioned that, for any type of energy source, you would have to be looking at it from cradle to grave and to take a look at the full life cycle. It doesn't matter whether it's solar, wind, hydro or oil and gas, as everybody has to take a look at the realities of the type of energy they have and what they're going to do with it once it gets to the stage where it has to be re-purposed.

Just quickly, Ms. Johnson, you had spoken about international standards of the draft policies and where you're going to be. I only have about 30 seconds left, but I wonder if you could fill us in a little bit. You've heard what CNSR has said. Could you just give us a bit of an update?

• (1925)

Ms. Mollie Johnson: On the policy?

Mr. Earl Dreeshen: Yes.

**Ms. Mollie Johnson:** Thank you very much. We launched the revised paper. It is on our website right now. We're really looking to focus around six key elements of the policy; to provide greater clarity on the elaboration on the roles, responsibilities and leadership on radioactive waste management; and to set out our direction. We want to focus on the prevention and minimization of waste so that it's managed to protect people and the environment. We underscore our commitment to UNDRIP through waste management.

You're stopping me. Thank you, Chair.

**The Chair:** I hate to do that. It hurts me more than it hurts you; believe me.

We'll go to Ms. Thompson.

Ms. Joanne Thompson (St. John's East, Lib.): Thank you so much, Mr. Chair.

Thank you to the witnesses. It's been an incredibly interesting study, with so much information and so many perspectives. I'm really interested to ask fairly straightforward questions to whomever wants to jump in and answer the simple questions that I'm still struggling to find some kind of a consensus on. First, how much radioactive waste do we have in Canada?

Ms. Mollie Johnson: Jim, do you want to jump in on that?

Mr. Jim Delaney: If we're talking about the different classes of radioactive waste, we're talking about 12,700 cubic metres of high level radioactive waste. The vast majority of our radioactive waste in Canada—when you're excluding uranium, mines and mills tailings—is low level radioactive waste. To break it down in percentages, 0.4% of our waste is high level radioactive waste, about 0.6% or 0.5% is intermediate level waste, and then the 99% remaining is low level radioactive waste. I hope that helps clarify.

#### Ms. Joanne Thompson: It does, thank you.

Again, I have a very straightforward question for any of the witnesses who want to answer this, is radioactive waste safely managed from your perspective within Canada?

Ms. Rumina Velshi: Maybe I will start, and others can jump in afterwards.

I believe it is managed extremely well. We have the best international practices here, and as I said earlier, our track record speaks for itself.

Mr. Ramzi Jammal: If I may add, Mr. Chair, to Madam Velshi's comments with regard to our record, international peer review, taken on from contracting parties—which is the convention and the treaty—learn from Canadian regulatory oversight and the management of the waste.

I would like to inform the committee of the regulatory powers we have. We shut down facilities. We bring them before the commission. Anyone who's not behaving and meeting our requirements will have their operations shut down and licensing actions taken to make sure that our requirements and safety are maintained at all times.

**Ms. Joanne Thompson:** Thank you. To lead from that, with the level of government oversight and regulatory bodies, why is there still so much of a disconnect between the information around waste management and the perception around the safety of the practices in Canada?

Ms. Rumina Velshi: Again, maybe I'll start and my colleagues will want to join in.

There is genuine, real fear. A lot has to do with waste and how the public media may have presented waste. You just need to look at *The Simpsons*, and you see these cans with green oozy stuff coming out of them. Some of it is that.

Some is real, particularly because they say that it is tens of thousands of years that this stuff could be around. That rightfully scares people. As I said earlier, I don't think we have done a good enough job explaining what the risks are and how well it is managed. Even in the worst-case scenario, what's the worst that can happen?

You had an earlier witness who talked about how Mother Earth has actually managed radioactive waste so well, and if the committee has not looked at the Oklo situation in Gabon, I will point out that there was a natural fission reactor two billion years ago that operated for tens of thousands of years. The waste from that is still intact; it has not moved at all. The science, the evidence, is there that it can be managed well. We just have not been able to do a good job in explaining that.

• (1930)

The Chair: You have 30 seconds, please, Ms. Thompson.

**Ms. Joanne Thompson:** For someone from the department—if I can get this in—how does the government make the information and decisions about radioactive waste available to Canadians?

The Chair: Answer very quickly, please.

**Ms. Mollie Johnson:** We do have some information like the national inventory report and other pieces, which are available on our website. With respect to the radioactive waste review, for example, every submission and all of the summaries, what we've heard, and reports are all available. We'd be happy to provide those links to the committee if that would be helpful for you to navigate through the information.

**The Chair:** Thank you very much. This has been an excellent panel. We've learned a lot, and have gathered a lot of input for our study.

I'd like to thank the panellists for making themselves available in the evening after we had to cancel the meeting about 10 days ago.

We'll pause there, and we'll bring in our new witnesses and continue. We have until 8:30, and then we have to stop because there's a lot of pressure on House resources.

Thank you very much again to the witnesses.

- (1930) (Pause)\_\_\_\_
- (1930)

The Chair: I'd like to welcome our witnesses for the second panel. We have Chief Duncan Malcolm Michano from the Bigtigong Nishnaabeg First Nation; from the Department of the Environment, we have Mary Taylor, director general, environmental protection operations; and from the Impact Assessment Agency of Canada, we have Steve Chapman, director general of national programs.

We have time for three-minute opening statements. We'll start with you, Chief Michano, for three minutes, please.

Chief Duncan Malcolm Michano (Chief, Biigtigong Nishnaabeg): *Meegwetch* for giving me the opportunity. I'm Chief Duncan Michano from Biigtigong Nishnaabeg. We live in northern Ontario.

The issue is that the Government of Canada is delegating the governance and policy-making for nuclear waste to the nuclear industry. I liken it to putting the fox in charge of the chicken coop.

The nuclear industry in Canada has been creating high-level nuclear waste now for approximately 60 years. During that time, the nuclear industry has created somewhere in the order of three million used fuel bundles, probably more. These highly radioactive bundles need to be cooled for a period of time in pools of water, which themselves become contaminated.

The NWMO, which is an industry-owned organization, has been delegated by the nuclear industry to determine methods to safely store this waste, waste that is created in the nuclear reactors. Some of these elements exist nowhere else in the universe but are created solely in these nuclear reactors. This waste is deadly to all forms of life on our planet, and toxic for thousands of years—hundreds of thousands of years in a lot of cases.

The method the NWMO has chosen to dispose of this deadly waste is to bury the nuclear waste in deep geological repositories. The intent is to bury that waste at some point and then walk away, leaving future generations to deal with the issues and the contamination of their homelands by an industry that cares only about the bottom line.

I would like to point out that as a prospector—I wander around the bush all the time, and I study geology—I understand geological processes, and the earth is not static; it's plastic. Over geological time, all rock formations move. These movements will eventually allow the toxic nuclear waste to then leach into the environment. It's not a matter of if it will eventually leach out but when.

What is the legacy that we wish to leave our descendants? A legacy like Chernobyl? Think about that, please.

The Governments of Canada and Ontario must ensure that they, not the nuclear industry, are in charge of nuclear waste policy and must phase out the production of electricity by nuclear means so that no more of this deadly waste is produced.

Attached are numerous resolutions—and you may have that in your files because I sent them in—passed by the Anishinabek Nation and other first nation organizations, including our chiefs in Ontario and the AFN. Some of these resolutions were moved by me. They include opposing the storing of nuclear waste on their lands and our lands and opposing the creation of SMNRs, and demanding that nuclear power be phased out.

There are other-

• (1935)

The Chair: Thank you, Chief Michano. We did receive that. The clerk mentioned that to me, and it's with the links. That will be reviewed as input by the analysts for the study. We'll have time for questions where you can provide supplementary information right after we hear from Ms. Taylor and Mr. Chapman.

Again, thank you for being here, Chief Michano.

Go ahead, Ms. Taylor.

Ms. Mary Taylor (Director General, Environmental Protection Operations, Department of the Environment): Good evening.

Environment and Climate Change Canada is the lead federal department for strategic action on a wide range of environmental matters, including action on clean growth and climate change, preventing and managing pollution, conserving nature, and predicting weather and environmental conditions.

The department delivers its mandate through various acts and regulations, such as the Canadian Environmental Protection Act the pollution prevention provisions of the Fisheries Act, the Federal Sustainable Development Act, the Species at Risk Act, the Migratory Birds Convention Act, the Canada Wildlife Act and others.

All nuclear waste projects must undergo a regulatory review—as you know—an environmental assessment and licensing processes. As you also know, the Canadian Nuclear Safety Commission plays an integral role in these activities.

Environment and Climate Change Canada is engaged in the review of waste management proposals and technologies as a federal authority under the Canadian Environmental Assessment Act, the Impact Assessment Act and, for other regulatory processes, under a memorandum of understanding with the Canadian Nuclear Safety Commission. For these, the department provides specialist and expert information on environmental matters related to its mandate.

We also participate in the federal nuclear and science technology committee that directs research on new technologies and processes for radioactive waste management and the monitoring of any discharges to the natural environment.

In 2021, Natural Resources Canada launched the review and modernization of Canada's radioactive waste policy. From November 2020 to May 2021, the department, together with other federal departments with responsibilities related to radioactive waste, participated in Natural Resources Canada's extensive engagement process, which solicited the views and perspectives of indigenous peoples and interested Canadians on how they would like to see the radioactive waste policy modernized.

For the engagement sessions on the radioactive waste policy, Environment and Climate Change Canada was present to listen to concerns raised by stakeholders and to address questions related to its mandate.

• (1940)

The Chair: Thank you very much, Ms. Taylor.

Mr. Chapman, for three minutes, please.

Mr. Steve Chapman (Director General, National Programs, Impact Assessment Agency of Canada): Good evening Mr. Chair and members of the committee.

I am pleased to be here to speak to you about the role of the Impact Assessment Agency in the life cycle management of nuclear projects.

The Impact Assessment Agency of Canada is a federal body accountable to the Minister of Environment and Climate Change and is responsible for implementing the Impact Assessment Act.

Impact assessments help project proponents, the public, indigenous groups and decision-makers understand the possible impacts of proposed projects before they are allowed to proceed. Assessments identify the best ways to avoid or reduce a project's potential negative impacts while increasing the potential positive effects.

The Impact Assessment Act and its regulations both establish the legislative basis for impact assessments and serve as a planning tool that takes into consideration the environmental, health, social and economic effects of major projects. The goal of the impact assessment process is to inform decision-makers about the project impacts and to ensure the protection of people and the environment.

Under the Impact Assessment Act, the Impact Assessment Agency leads and manages the impact assessment process for all federally designated major projects. The physical activities regulations identify the major projects with the greatest potential for adverse effects in areas of federal jurisdiction related to the environment so that they can enter into our impact assessment process.

With respect to nuclear projects, the regulations capture proposed new facilities for storing irradiated nuclear fuel or nuclear waste outside of the boundaries of an existing nuclear facility. These regulations also capture projects proposed for the long-term management and disposal of nuclear fuel or nuclear waste. As well, the regulations capture projects relating to the construction, operation and decommissioning of certain nuclear fission and fusion reactors that meet a specific threshold. Since the coming into force of the Impact Assessment Act in 2019, no designated nuclear projects have yet entered the impact assessment process.

Under the Impact Assessment Act, any assessment of a designated project that includes the physical activities regulated by the Canadian Nuclear Safety Commission must be referred to an independent review panel. The Impact Assessment Agency and the CN-SC have signed a memorandum of understanding that outlines how these assessments, referred to as "integrated assessments", will be conducted.

The intent of this MOU is to facilitate one single, comprehensive and coordinated process that meets the requirements of both the Impact Assessment Act and the Nuclear Safety and Control Act. In this way, the principle of one project, one assessment is respected, as the assessment process will integrate the licensing requirements of the CNSC into the impact assessment.

A review panel is a group of independent experts who are responsible for conducting an impact assessment. Members must have knowledge or experience relative to the project's anticipated effects, or regarding the interests and concerns of the indigenous peoples of Canada that are relevant to the assessment. Members of this review panel must also be unbiased and free of conflict.

**The Chair:** Sorry, we'll have to stop there, Mr. Chapman, but there will be time for questions.

We'll go to Mr. Seeback for for six minutes, please.

Mr. Kyle Seeback: Thank you, Mr. Chair.

I'm going to start with some questions for Ms. Taylor.

On February 3, we heard from the president of the Canadian Nuclear Association, Mr. John Gorman. Mr. Gorman said that clear support from all government policy-makers, clear and ongoing repeated acknowledgement that nuclear is not only clean but needed for a net-zero future, is needed, yet the environment minister seems to not really be able to state his support for the industry.

Can you explain why the government is so reluctant to support the industry?

I know that's tough question for you.

The Chair: Yes, it is a tough question.

**Mr. Kyle Seeback:** The minister has decided not to appear for this study, so....

The Chair: Go ahead, Ms. Taylor.

[Translation]

Ms. Monique Pauzé: I'm sorry, Mr. Chair; I have a point of order.

The Chair: Yes.

**Ms. Monique Pauzé:** My colleague Mr. Seeback's question is about the nuclear industry, whereas our work is about nuclear and radioactive waste.

• (1945)

[English]

The Chair: It's more on waste.

Ms. Taylor, that may not be a fair question, so we're not necessarily expecting—

**Ms. Mary Taylor:** I think that is a question that is not related to waste and would not be one that I'd be in a position to answer.

**The Chair:** Go ahead, Mr. Seeback. You have another shot at another question.

**Mr. Kyle Seeback:** I might try to come back to that at a later point.

One of the things that we're talking about here is whether the CNSC should report to the Minister of Environment as opposed to the Minister of Natural Resources. In your view, is there any [*Technical difficulty—Editon*] Parliament to the Minister of Natural Resources as opposed to the Minister of Environment?

**Ms. Mary Taylor:** That's a decision for the government to make, and it's not a decision for us as public servants to comment on. The structure has been established by the Government of Canada.

**Mr. Kyle Seeback:** Mr. Chapman, would you say that the IAAC is an independent agency that produces objective and accurate reports on the impact of nuclear waste management projects?

**Mr. Steve Chapman:** Mr. Chair, as mentioned in my opening remarks, we haven't had a nuclear project enter into the impact assessment system, so I can't comment specifically on nuclear projects under the Impact Assessment Act at this point.

I would say that the agency reports to the Minister of Environment and Climate Change and produces advice based on the best science and evidence available.

**Mr. Kyle Seeback:** Would you say that the advice that you provide is free and independent of influence, as an independent agency?

**Mr. Steve Chapman:** The advice that we provide, as I mentioned, Mr. Chair, is based on the best science and evidence and is free of influence, yes.

Mr. Kyle Seeback: I'd like to speak with Chief Michano.

I understand that you have concerns with respect to the storage of nuclear waste, and I can understand that. Do you see any way of storing nuclear waste safely, whether that's in a deep repository or on surface sites as it's being stored now?

**Chief Duncan Malcolm Michano:** I've answered that same question to the NWMO.

Stop making it, and then we'll talk about how we can store it.

**Mr. Kyle Seeback:** Do you think there is a safe way to store it?

**Chief Duncan Malcolm Michano:** I'm saying you stop making it, and we'll talk about how we can store it.

**Mr. Kyle Seeback:** In your view, there's no need for us to continue to use nuclear energy or indeed to expand nuclear energy.

Chief Duncan Malcolm Michano: There are lots of alternatives.

When you fly over northern Ontario, northern Quebec and northern Manitoba, all you see is water. There are a lot of opportunities for hydroelectric power generation in lieu of nuclear energy.

I fly over Toronto, and I see hundreds and thousands of roofs. Each one of those roofs should have solar panels on it. It would cut the power demand in half.

There are alternatives. You don't need to be producing the toxic waste that will be poisonous to our descendants for hundreds of thousands of years. They're going to have to deal with it.

Look at the amount of waste that we've produced in the last 60 years. What is it going to be like in another hundred years? What's it going to be like in another 500 years? What's it going to be like in a thousand years? Are we assuming that there are not going to be any people around to deal with that?

With first nations, we talk all the time about taking care of our descendants for seven generations.

• (1950)

The Chair: Thank you.

We'll go to Mr. Weiler now.

Mr. Patrick Weiler (West Vancouver—Sunshine Coast—Sea to Sky Country, Lib.): Thank you, Mr. Chair. I also want to thank our witnesses for joining us this evening for this important study.

I'd like to start my questioning with Mr. Chapman. You mentioned that there are no active reviews right now being done by the Impact Assessment Agency for nuclear waste projects. I'm curious: Are there any existing assessments that are being done under the precursor, the much less robust CEA 2012 Act, from which active reviews were grandfathered when the new Impact Assessment Act came into force?

**Mr. Steve Chapman:** Mr. Chair, there are active assessments ongoing for nuclear projects under CEA 2012, yes.

**Mr. Patrick Weiler:** Okay, and at what stage of the reviews are those projects right now?

**Mr. Steve Chapman:** Because there are at least seven that I'm aware of, I would have to get back to the committee, Mr. Chair, on the status of each individual assessment.

**Mr. Patrick Weiler:** Okay. We would appreciate it if you could provide that in writing.

You also talked about the physical activities regulations that trigger what projects are subject to a review by the IAA. Could you please explain what the thresholds are for nuclear fuel and waste storage and whether that would also capture waste that would be produced at the scale of SMRs?

**Mr. Steve Chapman:** Mr. Chair, our physical activities regulations are broken down by type of activity. You will find the sections related to nuclear facilities and the storage of nuclear waste in sections 26 to 29 of that regulation.

I believe the question was with respect to the thresholds. Each section of that regulation dictates a very specific threshold for various facilities, for either the production of nuclear energy or the storage.

If I could ask, Mr. Chair, just to have some precision on what threshold exactly the committee member would like me to speak to, I can provide that information.

**Mr. Patrick Weiler:** It's just for the actual storage for nuclear waste, not for the production, just for storage such that it would trigger an assessment.

Mr. Steve Chapman: In section 28, there is a provision for a new facility of storage of irradiated nuclear fuel or nuclear waste outside of licenced boundaries of a nuclear facility, and also a new facility for the long-term storage or disposal of irradiant nuclear waste or nuclear fuel. There's no threshold for that. Long-term storage of nuclear waste or nuclear fuels and entry for the irradiated nuclear fuel or nuclear waste into temporary or indeterminate storage, if it's outside of a new facility, would be captured by our regulation.

Mr. Patrick Weiler: Thank you.

You also mentioned the principle of one project, one assessment. I was hoping you could explain to this committee how this can be done without sacrificing the rigour of the separate reviews for nuclear waste.

Mr. Steve Chapman: Mr. Chair, because there are overlapping provisions in the Nuclear Safety and Control Act and the Impact Assessment Act, we've worked with the Nuclear Safety Commission to establish a memorandum of understanding on how we would conduct an assessment that would meet both the requirements of an Impact Assessment Act and the requirements under the Nuclear Safety and Control Act.

We would have an independent review panel appointed. The panel's function would also cover both the Nuclear Safety Control Act and the Impact Assessment Act. At the end of the day, that panel would produce a report for the Minister of Environment and Climate Change to make a decision on it. At the same time, that would also allow the Nuclear Safety Commission to use that same report to consider its licencing decisions.

Mr. Patrick Weiler: Thank you very much.

I'd now like to turn to Ms. Taylor from ECCC.

You mentioned that ECCC has participated in the ongoing review for the modernization of radioactive waste policy. As well, ECCC participates in the federal nuclear science technology committee that's looking at research on new technologies and processes for radioactive waste management.

I was hoping you could please give us a synopsis of ECCC's thinking of the risk of discharges to the natural environment from deep geological repositories of nuclear waste?

**Ms. Mary Taylor:** I think that question, of course, depends on the circumstances of each project.

When there is a project, we would be looking at the actual local physical characteristics, and then providing our advice on discharges. It's very difficult to speak in generalities, as each project has its own location with its own geological formations and its own information on water, so there isn't a general answer to that that I could provide.

• (1955)

Mr. Patrick Weiler: Okay.

I'm going to change gears a little bit.

One of the acts that was recently tabled in the Senate is a modernization of one of the acts that ECCC is responsible for, the Canadian Environmental Protection Act. Of course, this deals with the risk of toxics to humans and the environment.

Has an assessment ever been done of radioactive waste, and if so, was it declared toxic under CEPA?

The Chair: You have 15 seconds, so please be brief.

**Ms. Mary Taylor:** There has not been an assessment of radionuclides from waste material.

The Chair: Thank you so much.

We'll go to Madame Pauzé.

[Translation]

**Ms. Monique Pauzé:** I would like to thank the witnesses who are with us late this evening.

My first question will be to you, Chief Michano.

Can you give us an idea of the resolutions that have been submitted by first nations to government bodies and what the results have been?

[English]

The Chair: Go ahead.

Chief Duncan Malcolm Michano: I didn't understand the question.

[Translation]

The Chair: Could you repeat your question, Ms. Pauzé?

Ms. Monique Pauzé: Yes.

What resolutions have been submitted by first nations to government bodies?

[English]

The Chair: The question is about—

**Chief Duncan Malcolm Michano:** The translation system is not working.

Oh, there it is.

The Chair: The question is about the resolutions that you referred to earlier.

What kinds of resolutions are they? I think that's the question.

**Chief Duncan Malcolm Michano:** Oh, yes, the resolutions dealt with a variety of issues. There was the production and the research around SMRs, the handling of waste, and also the production of nuclear waste through nuclear power.

When you look at those three resolutions, you see that they're asking to stop all of them.

The Chair: I believe, Chief Michano, at the bottom of your screen you can choose a language and then you'd get the interpretation

Chief Duncan Malcolm Michano: Yes, I just turned it on.

The Chair: Thank you so much.

[Translation]

You have the floor, Ms. Pauzé.

This has not been taken away from your speaking time.

Ms. Monique Pauzé: I will continue to address you, Chief Michano.

What were the results after presenting this to the government bodies?

[English]

Chief Duncan Malcolm Michano: The resolution is basically to direct our leadership at the Nishnawbe Aski nation, at the Chiefs of Ontario and at the Assembly of First Nations to deal with those issues with the federal and provincial governments. That is what those resolutions do. It gives them the authority to deal with those issues.

As far as I'm aware, the Assembly of First Nations, the Chiefs of Ontario, or the Nishnawbe nations, and I believe the Iroquois as well, have not had any results from either the federal government or the provincial government.

[Translation]

**Ms. Monique Pauzé:** Can you tell us, roughly, how many indigenous communities across Canada have expressed concerns about the development of small modular reactors and the criticism of radioactive waste management in Canada?

[English]

**Chief Duncan Malcolm Michano:** At the Assembly of First Nations, nationally there are 600 first nations. Not all of them are on board with this issue. There are some that oppose, of course, and some abstain.

At the Ontario level, I believe there are a little over 37 first nations that have signed on to those resolutions, though there are a lot of first nations in Ontario that oppose DGRs and SMRs and the creation of nuclear waste through nuclear power.

• (2000)

[Translation]

Ms. Monique Pauzé: Thank you, Chief Michano.

I'm going to take that as a starting point to direct my questions to Mr. Chapman.

Small modular reactors are exempt from the new Impact Assessment Act. Could we still ask for a regional assessment that could be done by a provincial government or an indigenous governance body?

After all, there are 140 municipalities that are concerned and have said no to the waste management facility at Chalk River, and we just learned that 37 indigenous communities in Ontario are affected by this project.

Could there be a regional assessment?

[English]

**Mr. Steve Chapman:** Mr. Chair, there are provisions in the Impact Assessment Act that allow the minister to designate individual projects that aren't described in a regulation to enter the impact assessment process. That is one mechanism the minister has to bring in projects that aren't described in regulation.

The committee member also asked about regional assessments. The minister has the authority under the Impact Assessment Act to look at regional assessments, or to create a regional assessment to look at issues that may be clustered in a particular geographic area.

For regional assessment to move forward, the minister would take into consideration factors like the influence that regional assessment may have on future projects, the contribution of the regional assessment to get a better understanding of what cumulative effects are under a fellow jurisdiction, and whether or not the regional assessment would be in the public interest to move forward.

[Translation]

The Chair: You only have 10 seconds left, Ms. Pauzé.

**Ms. Monique Pauzé:** Can you tell us which nuclear projects fall under the new law?

The Chair: You are out of time, Ms. Pauzé.

**Ms. Monique Pauzé:** In that case, may I put my questions in writing to Mr. Chapman?

The Chair: Mr. Chapman, if you could respond to Ms. Pauzé's question in writing by sending a letter or email to the clerk, we would appreciate it.

I now turn the floor over to Ms. Collins.

[English]

Ms. Laurel Collins: Thank you, Mr. Chair.

Since we're starting a new panel, I want to mention again that it is disappointing that the Minister of Environment couldn't make time to appear at the committee for this important topic.

My first question is for Chief Michano.

We've heard a lot from industry representatives who have dismissed social concerns about nuclear waste disposal. I'd love to hear more about what you're hearing from the members of your community and their concerns about nuclear waste.

Chief Duncan Malcolm Michano: When the NWMO was doing consultations several years ago, we had huge demonstrations out on Highway 17 at White River. We had a huge demonstration out in Hornepayne. We had huge demonstrations at the Nipigon River Bridge. The first nations and our community members were there as well.

They were telling me in no uncertain terms that they didn't want any nuclear waste on our territory. In fact, we did a BCR here in the community. Council signed on to that BCR that we didn't want any nuclear waste in our traditional territory, and we didn't want nuclear waste in northern Ontario, period, because of the issues that I've cited.

Our first nations always talk about seven generations ahead, which you have to plan for. If you're leaving that toxic waste in the ground and then walking away from it, you're not thinking about those seven generations. You're leaving that waste for them to deal with.

It needs to stop being produced. That's the answer.

The Chair: You're on mute, Ms. Collins.

Ms. Laurel Collins: My apologies.

Given that your territories are unceded lands, do you feel that you have received undue pressure from the nuclear industry to become a community host of nuclear waste?

Chief Duncan Malcolm Michano: No, I don't think so. I think they understood that we, at least at Biigtigong, were not going to do it. We also didn't accept any of their money. We told them—I'm not going to say anything about whether we told them about it—that we didn't want their money, because we looked at that as bribe money. That's what we called it, but anyway, the pressure wasn't there, because they knew that we were not going to do it and eventually they just walked away.

• (2005)

Ms. Laurel Collins: Okay.

Do you think there are ways that the NWMO or federal agencies can improve the relationship with your community?

**Chief Duncan Malcolm Michano:** Not with my community, I don't think, but maybe with some other communities, because we can see through their facade.

**Ms. Laurel Collins:** Indigenous peoples must be consulted in selecting sites. How would you characterize the consultations related to the nuclear waste management? Do you think the manner and the timeline determined in those consultations were determined by indigenous peoples? Do you feel that indigenous knowledge was valued in the process?

#### Chief Duncan Malcolm Michano: No.

I wish Chief Kocsis from Hornepayne were here, because they tried to be involved with the process there, in Hornepayne, and they were shut out of meetings. A lot of those meetings basically talked about the benefits of nuclear power and said nothing about any of the negative impacts that could be there. It was all one-sided. The messaging was all one-sided.

Ms. Laurel Collins: Okay-

**Chief Duncan Malcolm Michano:** The Hornepayne First Nation people were not even allowed in the room in those meetings.

**Ms. Laurel Collins:** Given that indigenous communities were shut out of those rooms and given the one-sided piece you just mentioned, do you feel that the NWMO has infringed upon indigenous right to self-determination?

#### Chief Duncan Malcolm Michano: I believe so.

In regard to the treaties and the people who signed on to treaties, I believe they have. With us, we are unceded territory. We have an aboriginal title claim in place, and I believe they understood that as well when they were talking to us, and that we weren't going to back down. We were all set to put cabins out in the middle of those sites and not let them drill.

Ms. Laurel Collins: Thank you so much, Chief Michano.

Chief Duncan Malcolm Michano: Meegwetch.

Ms. Laurel Collins: I also have some questions for-

The Chair: You have 30 seconds.

**Ms. Laurel Collins:** Okay. This may be a precursor to my next question, because I have only two and a half minutes.

The City of Ottawa has called for a regional assessment of radioactive disposal projects in the Ottawa Valley under the Impact Assessment Act, but the request was turned down by the Minister of Environment and Climate Change.

I was hoping the minister would be here to answer this question directly, but since he's not here, for my next questions I'll be asking about why the request for the regional assessment was turned down given—

The Chair: Okay.

Ms. Laurel Collins: —what clearly seem to be regional impacts.

The Chair: We do have to finish at 8:30, so I'm going to have to shave a little time off the questions in the next round. I'll do four,

four, two, two, four and four minutes, instead of the five and the two and a half minutes.

We will start with Mr. Dreeshen.

Mr. Earl Dreeshen: Thank you, Mr. Chair.

Certainly I know how disconcerting it is with nuclear radiation. I remember when I was a child, my dad had the job of using the Geiger counter, after the Cuban missile crisis going out to see whether or not we would be able to get back out into the communities. We saw that as a scare when I was a kid, and we've seen other types of things-acid rain, global cooling, global warming, Y2K and ozone depletion—lots of things that need to have our attention and have had it over the years. I think that's really important, but I suppose there is a little bit of a disconnect in that we do have the Department of the Environment, which talks about the need for different things to be dealt with and dealt with properly, but the Impact Assessment Agency hasn't really done a nuclear projects analysis. Where I'd like to go with my question is that it doesn't really matter what type of energy source we have—whether it's flooded lands from hydro, whether it's oil and gas well sites, whether it's solar and the sand you need to dig out of the ground and all the toxic materials with those, whether it's windmill sites or biomass—everything is going to have some sort of impact on our society. Of course, nuclear waste is like that.

I'm curious, perhaps Mr. Chapman, how you think the processes we have used to analyze the full life cycles and the cradle-to-grave assessments for those other types of energy sources will be used in order to properly analyze nuclear projects when the time comes?

• (2010)

Mr. Steve Chapman: Thank you, Mr. Chair.

The Impact Assessment Agency has learned a lot over time about how assessments should be conducted from an administration standpoint and also from a science standpoint. We would expect to bring the learning we've done from those individual assessments to bear when we look at future nuclear projects entering our system. As I mentioned in my opening remarks, because of the way we've structured ourselves with the memorandum of understanding with the Nuclear Safety Commission, we'll be doing that jointly with the Nuclear Safety Commission.

Mr. Earl Dreeshen: Thank you.

Perhaps I could speak to Ms. Taylor on that. In the Department of the Environment, what is the education process? Do you have any responsibility there to educate Canadians? I know we did have some discussion with a professor from the University of Calgary about how this can be done. Is that part of the programs you have in order to make sure people understand exactly what the concerns really are in this case?

**Ms. Mary Taylor:** I would say we don't have outright education programs, but we review every project that is in process and we provide our specialists' and experts' advice on a range of issues, such as how the proponent has characterized the effects to water, to air and to biodiversity, including species at risk. That way we look at each project and provide that expert advice.

**Mr. Earl Dreeshen:** Thank you. I see that my time is closing, so I'll give you that extra 10 seconds.

**The Chair:** Thanks, Mr. Dreeshen. I appreciate getting that little bit of extra time back.

Mr. Duguid, please go ahead for four minutes.

Mr. Terry Duguid (Winnipeg South, Lib.): Thank you, Mr. Chair.

I want to thank our witnesses for their presentations and for answering our questions today.

Perhaps this first question is for Ms. Taylor. We have two reviews going on at the same time—the review of CEPA, which is in the Senate and which will hopefully come to us sometime in the not-too-distant future, and a review of radioactive waste policy. I wonder if you have any reflections on how those two reviews can inform one another and provide some sage advice that helps decision-makers move forward with both of those policy reviews and that results in policy improvements.

**Ms. Mary Taylor:** I don't think I have a lot to contribute on how those two reviews can inform each other. I am not actually involved in the CEPA review. Certainly we are participating and providing our advice, as I said, on waste review and how we proceed on assessments and how we work on water quality and water quantity issues and biodiversity issues, among others. As to how those two would inform each other, I do not have anything else.

**Mr. Terry Duguid:** Since we're involved in both, we may have an answer to that at the end of our study.

Mr. Chapman, there are no major nuclear waste management facilities under review under the 2019 policy. If there were one, could you refresh our memories on what the differences would be...? I know there's the "one project, one process" approach, of course, which was the centrepiece of the 2019 policy.

Maybe you could comment a little bit on our processes, particularly with respect to indigenous communities and section 35. We now, of course, have UNDRIP, which is government policy.

In the time I have, could we get some reflections on the impact assessment process as it has evolved from 2012?

• (2015)

**Mr. Steve Chapman:** There are a number of differences that have come into play with the new Impact Assessment Act.

We have a new planning process. For example, we have a nuclear project that meets the requirements of regulation. That goes into a planning process where we would sit down with indigenous groups, talk about what needs to be assessed, whether it should be assessed, and then a decision is made early in the planning process as to whether a formal impact assessment is required for the project.

Once we're out of the planning process, we'd be looking at a body of new factors that weren't contained in our former legislation. We'd be looking at impacts on constitutional rights held by indigenous peoples. We're also looking at new health, social and economic factors that weren't contained in the former legislation.

The end of the process is also quite different compared to CEAA 2012. We now have under the Impact Assessment Act a public interest decision that didn't exist under CEAA 2012. The Minister of

Environment and Climate Change can either make a public interest decision or he can refer that decision to the Governor in Council.

The Chair: Thank you.

Mr. Steve Chapman: It's very different, from the front, middle

The Chair: Thank you very much.

[Translation]

Ms. Pauzé, you have two minutes.

Ms. Monique Pauzé: Thank you, Mr. Chair.

My question is going to be for Ms. Taylor.

In the specific case of the proposed near-surface waste management facility at Chalk River, there are plans to allow the disposal of radioactive substances near a river that provides drinking water to thousands of citizens, including myself, who live in the Montreal area. There are 140 municipalities and 37 indigenous nations in Ontario that are opposed to this project. Also, it really goes against the principles of the International Atomic Energy Agency, because the sources of cobalt 60 have not been properly categorized.

So, Canada's nuclear policy needed to be reformed so that there was a better waste management strategy. I think that policy and strategy reform has begun, but it is not yet complete.

Is there any evidence that this is really happening and that all sources of cobalt 60 at Chalk River are really going to be considered?

[English]

**Ms. Mary Taylor:** Yes. This particular project is currently under an impact assessment review by the Canadian Nuclear Safety Commission. We are providing our expertise, and our information is available publicly on the website. It is currently under regulatory review. The CNSC will conduct the consultations and will do that work. We will provide our expert advice.

[Translation]

Ms. Monique Pauzé: My last question will be to Mr. Chapman.

Can the interim nuclear storage sites at Chalk River for intermediate, and even high-level waste be part of an environmental impact assessment?

[English]

The Chair: Please provide a very brief response.

**Mr. Steve Chapman:** Mr. Chair, as I mentioned to a previous committee member in one of my responses, the regulations dictate the type of nuclear activity or project that we would be assessing. When it comes to the storage of nuclear waste, section 28 of our physical activities regulations lays out which of those types of projects would automatically be brought into the Impact Assessment Act.

The Chair: We have to stop there. Thank you.

We will now go to Ms. Collins.

Ms. Laurel Collins: Thank you, Mr. Chair.

To return to my question, for the Impact Assessment Agency of Canada, [Technical difficulty—Editor] request for a regional assessment was turned down, given what clearly seem to be regional impacts.

**Mr. Steve Chapman:** The request came from Mayor Jim Watson, City of Ottawa. The minister, in making public his reasons for the decision, cited the fact that in the original request for a regional assessment, there was reference made to the individual projects that are taking place and currently being assessed by the Canadian Nuclear Safety Commission.

That process under CEAA 2012 involves an examination of the cumulative effects of each project, and because there's a very robust regime in place under CEAA 2012 and the Canadian Nuclear Safety Act to look at cumulative effects, the minister relied on that in making a determination that there would not be value added with a regional assessment.

• (2020)

Ms. Laurel Collins: Thank you, Mr. Chair.

Do you think the switch to doing impact assessment under the Impact Assessment Agency makes for a more robust process?

Mr. Steve Chapman: I do. I think that-

Ms. Laurel Collins: I'm just going to pause you there.

If the Chalk River project were to start today, the Impact Assessment Agency, and not the CNSC, would conduct the assessment. So really, wouldn't public confidence be increased regarding the proposed disposal site, given that there is a more robust process available?

**Mr. Steve Chapman:** I think the public should have confidence in the assessments undertaken by the Nuclear Safety Commission. I have no reason to doubt that those are robust assessments.

**Ms. Laurel Collins:** But the Impact Assessment Agency has a more robust process that we're now moving to.

**Mr. Steve Chapman:** I would say, as I mentioned, Mr. Chair, in my previous answers, that we've learned a lot about individual assessments, and we would use the Impact Assessment Act to look at future nuclear projects. The fact that Chalk River is undergoing an assessment under CEAA 2012 is something I can't change.

Ms. Laurel Collins: Thank you, Mr. Chapman.

The Chair: The two minutes is up, unfortunately, Ms. Collins.

Mr. Mazier, you have four minutes. Go ahead, please.

Mr. Dan Mazier: Thank you, Mr. Chair.

Ms. Taylor, do you have confidence in your colleagues at NRCan and at the CNSC to independently govern nuclear waste management in Canada?

**Ms. Mary Taylor:** I have every confidence in them. We will continue to provide our advice and expertise, and they are charged to do that work.

Mr. Dan Mazier: Good.

Mr. Chapman, this committee has heard a lot about the dangers that misconceptions, misplaced fears and misinformation relating to nuclear energy can have with respect to industry growth and in preventing environmental targets from being reached. From a regulatory consultation perspective, how do you deal with people and organizations who raise concerns fuelled by misinformation and fear that contradict the science of nuclear energy and waste?

**Mr. Steve Chapman:** Mr. Chair, the Impact Assessment Agency of Canada reviews some of the most controversial and polarizing projects that Canada has to offer. One of the hallmarks of our process is its transparency and our allowing of those views to come forward. It's really up to the agency, when we're conducting an assessment or a review panel, to place the appropriate weight on the information or evidence we gather. It's a forum. We provide forums for discourse, for understanding and for resolution of some of these issues as they come forward.

**Mr. Dan Mazier:** Can you explain the weighting a little bit more? As you say, it's a very hot topic. Does the public know that? Do the organizations know about that weighting before they go in?

**Mr. Steve Chapman:** Do they know that? I think it's one of the jobs of the agency or review panel to explain the process that's going to be applied to an individual project. Each time we harmonize, say, with another provincial jurisdiction or we're working with an indigenous group, there might be differences in the process. One of the jobs we have is to explain the process up front once we have a project come in.

Yes, I do think the public understands how information is treated. Again, one of the hallmarks of the Impact Assessment Act for many of the decisions the agency or the minister makes is that there have to be reasons for a decision. In those reasons for a decision, the public can see how information was treated and where the reliance was put on certain types of information to arrive at a decision.

**Mr. Dan Mazier:** So those goalposts could move depending on what information is found. That's good.

Ms. Taylor, how much is your department spending on educational initiatives to inform Canadians about the safety of nuclear energy?

**Ms. Mary Taylor:** I would have to look into that. I'm not aware of any educational programs at this point in time, but to be certain I would have to take that question and come back.

Mr. Dan Mazier: Okay.

I'll go back to Mr. Chapman.

From all the data, research and scientific evidence you've seen, are DGRs the safest way of storing high-level nuclear waste?

#### • (2025)

**Mr. Steve Chapman:** Mr. Chair, because we haven't assessed and arrived at a decision, either under CEAA 2012 for what was then a low-level and intermediate-level DGR, and we haven't had a new application come forward for another DGR, I can't comment on that.

What I can comment on is the robustness of both the process that the Impact Assessment Agency has and also the Nuclear Safety Commission has to review these types of projects.

**The Chair:** Thank you. We have Mr. Longfield.

Mr. Lloyd Longfield: Thank you, Mr. Chair.

I'm going to start with Ms. Taylor. I'm wanting to form my question to echo some concerns that we heard from Chief Michano around leaving things in the ground and walking away from it. I think it's a fair comment to make that we would be leaving things in the ground for millions of years—for seven generations plus, plus, plus.

When we look at what we're leaving in the ground and what ground we're leaving it in, how deep are we talking about? Is this Canadian Shield? Is this something that Canada does differently from other countries in terms of us having granite and thousands of feet to drill into? Could you comment on what are we actually talking about with a deep ground repository?

Ms. Mary Taylor: I'm afraid that I'm not an expert on the depth of these particular facilities. I can assure you, though, that when a project like that is put forward and a proponent puts an assessment in front of us, we would be looking at the geological formation and we would be looking at the hydrology of the area and then making sure they've characterized the effects in a true manner. We would also look at the efficacy of any mitigation measures they propose and then provide our advice accordingly.

#### Mr. Lloyd Longfield: Thank you.

I've been fortunate to spend a lot of time underground in mines in Canada, and I know that when you get out of the cage, you're in a different world. When we're talking about river effects and groundwater effects, the Ottawa River and what we're talking about at Chalk River, we're going from a safe situation to an extremely safe situation if we can find the right repository. Is that a fair comment, Ms. Taylor?

Ms. Mary Taylor: I think it's difficult to answer in a general manner.

Mr. Lloyd Longfield: Right.

**Ms. Mary Taylor:** Every project gets assessed on its own merit, and I don't have in front of me the details of all the possible hydrological systems in play.

Mr. Lloyd Longfield: Sure. Thank you.

Finally, I'm just trying to wrap up our study here, with the minute or so we have left. Is there a lead agency? Maybe the Impact Assessment Agency could talk about who takes the lead in these discussions when you're setting up governance. Is each project assigned a lead?

**Mr. Steve Chapman:** Mr. Chair, as I mentioned at the beginning, the Impact Assessment Agency of Canada is responsible for conducting the assessments. At the same time, we recognize that the Nuclear Safety Commission also has overlapping responsibilities. It is the reason why we set up a memorandum of understanding to deal with exactly the I guess governance issues, or how these projects will be assessed.

Mr. Lloyd Longfield: Right, because we have two government departments, that always makes me uncomfortable: Do you go to NRCan or do you go to Environment and Climate Change? You have two bosses, and I've heard it said in the past that you don't have a boss...

**Mr. Steve Chapman:** Mr. Chair, we have an excellent working relationship with the Nuclear Safety Commission. We've done coordinated assessments with the Nuclear Safety Commission in the past, and I have full confidence that we will be able to undertake assessments in a coordinated manner in the future.

**Mr. Lloyd Longfield:** Great. Thank you. Also, then, we have international oversight. We have checks on our checks, and then we audit those checks through international oversight as well.

Thank you, Mr. Chair.

Thank you to the witnesses for a very good discussion.

The Chair: Thank you, Mr. Longfield.

Mr. Seeback, you have your hand up.

**Mr. Kyle Seeback:** Mr. Chair, before the end of the committee meeting, I think that we need to discuss meetings over the break. After consultation with my colleagues, we would prefer not to have a meeting over the break weeks coming up.

The Chair: That is noted.

Mr. Duguid, you have something to say.

Mr. Terry Duguid: Yes, Mr. Chair.

If I could indulge the committee for 54 seconds, March 22 is UN World Water Day. There is a consortium of organizations involved in water: at the University of Saskatchewan; Global Water Futures, which is a research leader in the world; UN-Water; and I believe UNESCO will be there.

This group has planned an event that happens to overlap with the time of this committee. I think three or four members of this committee have been invited to participate as panellists.

Madam Pauzé, you would have received an invitation. I know that Laurel Collins, you, Mr. Chair, and I have received invitations as well.

I wonder if we could schedule our meeting for the evening that day. As you know, we often get bumped to the evening because of the procedures committee. I wonder if we could indulge the committee to do what we do when we get bumped by the procedures committee, which is to have it in the evening.

• (2030)

The Chair: We'll look at that. We do have to be out of here any second now.

Ms. Collins.

**Ms. Laurel Collins:** I just want to speak to my support for both of the Conservatives, given that it's their study, but also for Mr. Duguid's proposal to move to the evening.

I also want to note that Ukrainian government officials have reported that Europe's largest nuclear plant is on fire. I am not sure, but is there a way for us to acknowledge what is happening, especially given that we are studying nuclear issues right now, and to condemn what is happening?

**The Chair:** Absolutely. I have no doubt that there is unanimous consent around condemning the terrible situation that's going on and obviously creating a real mess.

Mr. Terry Duguid: I agree, Mr. Chair.

**The Chair:** Ms. Collins, you said something about the Conservative study. I'm sorry, I missed that part.

**Ms. Laurel Collins:** It's just that on the break week, I believe Mr. Seeback had proposed not having—

The Chair: Yes, I'll take that under advisement for sure. Thank you.

I want to thank the witnesses for an excellent panel and for making themselves available in the evening. I know that cuts into family time and other things, so thank you very much. It's been a very valuable contribution to what we are doing, so it is greatly appreciated.

On that, as I said, we have to end at 8:30, so I will adjourn the meeting.

Thank you.

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