Canadian Nuclear Safety Commission

Commission canadienne de sûreté nucléaire

Public hearing

Audience publique

June 3rd, 2022

Le 3 juin 2022

Best Western Pembroke Inn & Conference Centre
1 International Drive
Pembroke, Ontario

Best Western Pembroke Inn & Conference Centre
1, rue International
Pembroke (Ontario)

also via videoconference

aussi par vidéoconférence

Commission Members present

Commissaires présents

Ms. Rumina Velshi
Dr. Marcel Lacroix
Ms. Indra Maharaj

Mme Rumina Velshi
Dr Marcel Lacroix
Mme Indra Maharaj

Registrar:

Greffier:

Mr. Denis Saumure

Me Denis Saumure

Senior General Counsel:

Avocate-générale principale :

Ms. Lisa Thiele

Me Lisa Thiele

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Pembroke, Ontario / Pembroke (Ontario)

--- Upon resuming on Friday, June 3, 2022
at 9:01 a.m. / L'audience reprend le
vendredi 3 juin 2022 à 9 h 01

***Opening Remarks**

THE PRESIDENT: Good morning and welcome to the continuation of the public hearing of the Canadian Nuclear Safety Commission. Welcome also to those joining us remotely.

My name is Rumina Velshi, I am the President of the Nuclear Safety Commission.

For those of you who were not here earlier this week, I will begin by introducing the Members of the Commission who are with us for this public hearing.

I will preside over the hearing, and with me on the Panel, to my left, Dr. Marcel Lacroix and Ms. Indra Maharaj.

To my extreme right are Ms. Lisa Thiele, Senior General Counsel to the Commission, and Mr. Denis Saumure, Commission Registrar.

I will turn the floor to Mr. Saumure for a few opening remarks.

Denis...?

MR. SAUMURE: Thank you, President Velshi.

Bonjour, Mesdames et Messieurs. Welcome to the continuation of Part 2 of the public hearing on the application by CNL to amend its Chalk River Laboratories site licence to authorize the construction of a Near Surface Disposal Facility.

During today's business we have simultaneous interpretation. The English version is on channel 1, et la version française est au poste 2. Please keep the pace of your speech relatively slow so that the interpreters have a chance to keep up.

L'audience est enregistrée et transcrite textuellement. Les transcriptions se font dans l'une ou l'autre des langues officielles, compte tenu de la langue utilisée par le participant à l'audience publique.

The transcript of the hearing will be available on the CNSC website in a few days. To make the transcripts as meaningful as possible, we would ask everyone to identify themselves before speaking.

I would also like to note that this hearing is being video webcast live and that the hearing is also archived on our website for a three-month period after the closure of the hearing.

As usual, the President will be coordinating the questions. For the participants joining

on Zoom, to avoid having two people talking at the same time during the question period, please use the "Raise Hand" function if you wish to provide an answer or add a comment.

As a courtesy to the others in the room, please silence your cell phones and other electronic devices.

Please note that there are three emergency exits located to the left and one on the right.

We have in place for our hearing public health measures that align with the federal public health and safety recommendations. We urge participants to practise physical distancing. We have masks available at the back of the room. Thank you for your cooperation.

For this hearing the Commission has revised its procedural guidance, as indicated in the Revised Notice of Public Hearing including Procedural Guidance for Questions and Written Final Submissions.

Registered intervenors will have the opportunity to ask questions in two ways: as part of the oral presentation or in writing by submitting your question to the Registry staff at the back of the room.

The President will determine whether, how and the most appropriate time for questions to be addressed. Questions may be limited or excluded if they

fall outside the scope of the hearing, are repetitive or have already been addressed to the Commission's satisfaction.

Intervenors who have registered for oral presentations have the opportunity to submit written final submissions following Part 2 of the public hearing. The provision of written final submissions is optional. New information may not be presented in final submissions and submissions are limited to a maximum of 5,000 words for registered intervenors and 30,000 words for CNL.

For further information on the public Commission hearing process for this proceeding, you can ask our Tribunal Officers in the back or refer to the Notice that was published.

The break for lunch should be around noon.

Your key Registry contact persons are in the back of the room.

The focus of today's presentations is Requested Licence Amendment.

Ten minutes are allocated to each intervenor for each presentation, with the Commission Members having the opportunity to ask questions after each presentation. To help you in managing your time, a timer system is being used. The light will turn yellow when there is one minute left and turn red at the

10-minute mark.

Before we start with today's presentations by intervenors, we understand that CNL and CNSC have information and answers to questions posed by the Members this week.

CNL...?

MS. VICKERD: Meggan Vickerd, for the record.

Good morning and thank you for the opportunity to provide some information as requested.

This morning I would like to make a few statements on the record with respect to the requested undertaking on the percentage of low-level waste generated prior to 1995. We have a couple of requested figures I would like to make sure we submit on the record and Mr. Boyle has a statement about retrievability that we would like to put on the record.

With respect to the percentage of low-level waste generated prior to 1995, CNL would like to take this opportunity to make sure we enter the following information pertaining to this request earlier this week from the Commission with respect to the percentage of low-level waste generated prior to 1995.

I would like to start by acknowledging that Canada's Seventh National Report for the Joint

Convention on the Safety of Spent Fuel Management and Radioactive Waste Management, the Seventh National Report was produced for the reporting period from April 1st, 2017 to March 31st, 2020. The report is a collaboration between the CNSC, federal government departments and industry, which CNL contributes to through AECL. I would like to mention that this report is available to the public on the CNSC website.

Under Article 32, the National Inventory Report includes an inventory of radioactive waste that is subject to the Convention and this includes low-level waste. Table D-8 of that report, the total volume of low-level waste currently in storage reported for the Chalk River Laboratories is approximately 310,000 cubic metres. This includes waste that has been produced from operating research reactors at our site, isotope production activities, decommissioned waste produced as of 2019, as well as the external waste received at Chalk River.

More than half of this 310,000 cubic metres is contaminated soils. Of the existing reported non-soil waste, approximately two thirds of the packaged waste was produced prior to 1995 and one third of that packaged waste has been produced since 1995.

CNL would like to take this opportunity to also put on the record that while the majority of low-level

waste packaged currently in storage is pre-1995, CNL considers the process, knowledge and scoping level characterization available for this inventory sufficient to confidently characterize it as low-level waste and provide a waste volume within a reasonable certainty.

However, as already stated, all waste, including legacy waste, will be characterized according to modern waste characterization practices and standards as it is retrieved to ensure it is acceptable for placement into NSDF.

Another little bit of information is that since 2016 we have decommissioned at Chalk River over 100 buildings onsite. Of that volume of waste generated from the facility's decommissioning, roughly 85 percent has been clean waste. We do decommission of our buildings. Plus even buildings where nuclear operations are conducted, we segregate clean waste. Thirteen percent of that waste has been low level and a small remainder would be intermediate level or hazardous waste such as clean asbestos.

To put the volume in context, that 13 percent from our decommissioning activities since 2016 is an estimated 10,000 cubic metres.

So now I will go to the visuals that have been requested. If we can get them pulled up on the screen.

--- Pause

MS. VICKERD: So perhaps while we are waiting for the visuals we will go to Mr. Boyle to read a statement about retrievability.

MR. BOYLE: Good morning. Phil Boyle, for the record.

As outlined by CNL in our Environmental Assessment and Licence Application to the Commission, the Near Surface Disposal Facility has been designed as a permanent disposal facility incorporating best available technologies and industry practices.

Disposal by definition means to place waste without the intent to retrieve. As such, retrievability and reversibility have not been explicitly incorporated into the design. However, as noted in section 2.3 of the Environmental Impact Statement Purpose of Project, although the intent is not to retrieve the waste and to prevent inadvertent exposure to the public, consistent with international practices, the design of NSDF does not preclude future generations from retrieving NSDF contents.

There are features within the design of the facility which would facilitate the ability to delineate an issue and, if required, retrieve the waste. In particular, the cells are successively filled and each

cell has a separate sump that should CNL detect a leak as part of their regular monitoring of leachate within the collection system we would be able to determine which cell may be not performing as anticipated.

Furthermore, as mentioned in section 3.2.1 of the NSDF Safety Case document, the Waste Placement Mapping Plan includes the use of a three-dimensional waste location recording system for waste placed within the engineered containment mound. Thus, a review of waste packages placed specifically in that cell can be done to facilitate the investigation.

As waste retrieval is not intended, it has not been assessed within the submission, but in the unlikely event that waste retrieval becomes necessary or simply desired, a safety assessment for waste retrieval would be performed prior to the retrieval activities.

CNL has a robust management system required to develop such plans. The management system provides the processes to assess the health and safety, radiological and environmental considerations, as well as control the design and performance of the work.

CNL has already demonstrated its ability to safely recover waste from waste storage facilities using the existing processes. This includes the extensive remediation activities done at Port Hope and Port Granby.

Thank you.

MS. VICKERD: Meggan Vickerd, for the record.

So now I will speak to two visuals or figures that have been requested by the Commission.

So this first rendering provides a view looking towards the NSDF project site from the Ottawa River at closure. Several comments have been received by CNL which expressed a concern with respect to the overall height of the facility, which led to CNL's commitment that the facility would not be visible from the Ottawa River. That was one of our design requirements.

This also incorporated into the design requirement for the facility that the overall design of the engineered containment mound will be compatible with the CRL site topography. Keeping a geometric profile that is compatible with the local topography ensures that the facility will evolve uniformly with its surroundings.

Next slide, please.

The second is the correction for Figure 18 within CNL's Commission Member Document CMD 22-H7.1. As noted in CNL's slide 20 from earlier this week, the incorrect reference was cited in this figure. The correct Ontario Geologic Survey Report is provided now in this new figure. CNL would like to reiterate that the data used and

presented to create this figure is correct, it's just that the incorrect Geologic Survey Report from 1981 had been previously cited.

The NSDF Safety Case is available to the public and has an expanded discussion of this figure with the correct reference citation. Thank you.

THE PRESIDENT: Thank you very much, Ms. Vickerd.

Maybe I will just check with Commission Members if they have any follow-up questions to what you have presented.

Maybe I will start off with mine around the inventory of pre-1995. What was critical about 1995 is that any waste generated after 1995 is better characterized and categorized, et cetera.

From what you have shared with us -- and I couldn't do the math quick enough -- but whether it is 50 or 100,000 cubic metres that is pre-1995 of the packaged waste, what you are saying is there is a very high level of confidence that that is indeed low-level waste and now it's just a confirmation before placement that it would comply with Waste Acceptance Criteria if one were to proceed with the project?

MS. VICKERD: Meggan Vickerd, for the record.

That is correct.

THE PRESIDENT: Thank you very much.

Dr. Lacroix, any questions around whether it is retrievability or -- no?

Ms. Maharaj...?

Thank you. Thanks very much for that.

MR. SAUMURE: CNSC staff?

MS. MURTHY: Thank you.

Good morning, President Velshi and Members of the Commission.

My name is Kavita Murthy and I am the Director General of the Directorate of Nuclear Cycle and Facilities Regulation.

Yesterday as part of the Indigenous Consultation and Engagement theme we heard from many intervenors concerns about the consultation and engagement process and the potential impact on rights and interests.

We want to, first of all, thank all Of the Indigenous Nations and communities for participating and providing us with a lot to discuss and consider and process.

CNSC staff would like to reiterate to the Commission our recommendation that the EA under *CEAA 2012* found that there are no significant residual adverse effects, taking into account mitigation and follow-up

measures and other commitments, including section 5.1.C with regards to the effects of changes on the environment to Indigenous peoples.

In addition, CNSC staff are satisfied that the potential impacts of the project on Indigenous and/or treaty rights have been adequately identified and appropriate mitigations identified. As such, the project will be protective of any potential exercise of rights within the proximity of the NSDF project.

CNSC staff remain committed to a long-term relationship with each of the identified Indigenous Nations and communities and involving them in ongoing monitoring and oversight of the implementation of mitigation measures and commitments should the NSDF Project proceed. Thank you.

THE PRESIDENT: Thank you, Ms. Murthy.

Any follow-up questions?

Okay. Thank you.

We will begin today with a presentation from CNL on the Requested Licence Amendment, as outlined in Commission Member Document CMD 22-H7.1D, and I will turn the floor to Mr. Boyle for the presentation.

Mr. Boyle...?

***CMD 22-H7.1D**

Oral presentation by the Canadian Nuclear Laboratories

MR. BOYLE: Thank you.

Good morning, President Velshi and Members of the Commission.

For the record, my name is Phil Boyle, and I am the Chief Nuclear Officer and the licence holder at Canadian Nuclear Laboratories.

Before going any further, I would like to acknowledge that our operations in Chalk River are situated on the unceded traditional territories of the Algonquin Anishinaabe people. I firmly believe that ongoing engagement with Indigenous communities is vital to moving forward in the spirit of partnership, collaboration and reconciliation. Those words are sincere, but one couldn't listen to the interventions yesterday without recognizing that to some they are just words.

There is an old lesson in the nuclear business of believe your indications. Things aren't what you want them to be, they aren't what you think they should be because of what you have done, they are what they are and that means we have to continue to listen. Engagement is a continuously evolving process and we will continue to engage with all interested parties to move this process

forward.

As Chief Nuclear Officer, I am responsible for ensuring that nuclear safety is an overriding priority at the Chalk River site, that we meet the conditions and requirements of our CNSC licence, and that we strive for excellence in all our activities.

I am confident that CNL is ready to construct, operate and safely close the NSDF in accordance with all applicable requirements and consistent with international standards. CNL operates with an unwavering commitment to safety and environmental protection, under strong oversight by the Canadian Nuclear Safety Commission and other regulators.

We understand from the intervenors in this process that concerns remain about CNL's provisions for long-term monitoring. We do understand these concerns given the long timeframes associated with this project, including at least 300 years of institutional control after the facility is closed.

We have also seen that some intervenors lack confidence in CNL's ability to understand and comply with the requirements to construct, operate and close a radioactive waste disposal site.

This week we have covered a number of topics of particular interest to intervenors. Today I will

focus on one area that we have not yet discussed, that is, the specific attributes of the NSDF Project and our organization that ensures long-term monitoring and accountability to the Commission, to members of the public and to Indigenous communities.

There are specific attributes about the NSDF Project, the Chalk River site licence and the CNL management system that provide assurance that necessary long-term monitoring and accountability will be implemented for the NSDF Project.

First, through AECL, the Government of Canada is the long-term owner of the Chalk River Laboratories site.

As discussed over the course of this week, this project is intended to facilitate the disposal of the majority of AECL's low-level radioactive waste which is currently in interim storage as well as the waste generated from cleaning up the site and waste from ongoing research at Chalk River Laboratories.

AECL remains responsible for the liabilities for all phases of these endeavours, including construction, operations, closure and post-closure. And the Government of Canada has responsibility for institutional controls into the future. This attribute provides assurance that long-term monitoring will be in

place as a commitment from the Government of Canada.

The second attribute is the robust CNL management system that has resulted in safe operations at the Chalk River site for decades.

As discussed at the Part 1 hearing, the management system describes the processes and controls used to maintain a high level of quality and excellence in all CNL activities in an environment that prioritizes safety and fosters continual improvement.

For clarity, the management system is comprised of the functions and programs that ensure compliance with each of the Safety Control Areas in our CNSC licence. These functions and programs govern all of our activities. The management system is well positioned to securely and safely deliver all phases of the NSDF Project.

The third attribute is the obligation we have to comply with the Chalk River site licence and the requirements in the *Licence Condition Handbook*.

There are a number of mechanisms to hold CNL accountable for these requirements, which I will address in a moment, but for now I will point out that CNL is committed to comply with the requirements in the *Licence Condition Handbook*, which will ensure ongoing stewardship of the NSDF.

And then of course through all of our activities, safety and security now and for the future generations is the paramount consideration for all CNL employees. We are committed to remediating the Chalk River site and dealing with the low-level waste now, rather than leaving it to future generations.

The proposed NSDF is a critical component to achieve safety and security through a safe solution that contains the waste and isolates it from the environment. Monitoring and institutional controls will remain in place for as long as required.

I would like to take this opportunity to highlight some aspects of the commitments we discussed in Part 1 of the hearing back in February.

It is important to recall that the legacy waste management areas at the CRL site were designed and built prior to development of modern standards. Specifically, the legacy waste management areas lack robust containment, which has affected the surrounding environment. CNL is actively implementing solutions to retrieve waste from these legacy waste management areas, to place the waste in modern and compliant engineered waste management facilities.

The NSDF is required to facilitate these activities and has been designed and will be built to

modern standards. CNL is committed to implementing the new Canadian regulatory documents released in 2021 specific to radioactive waste management and decommissioning.

In Part 1 and yesterday we discussed our commitment to continue to engage with Indigenous people and the public. We recognize commitments only have meaning when they grow out of relationships and trust and that the actions measure up to the commitments. We believe we are doing that but understand that we are still on a journey.

We have spent several days discussing CNL's commitment to ensuring the protection of people and the environment -- which includes the Ottawa River -- during all phases of this project. There have been a number of examples identified, for example changes to the Waste Acceptance Criteria, use of a weather cover and other changes in the design that are the result of those interactions.

And in line with other nuclear facilities at the Chalk River site, we will perform periodic reviews and updates of the safety case through all licensing stages to keep them current.

CNL believes the NSDF Project will significantly improve current conditions at the Chalk River Laboratories site through safe waste disposal and enhanced environmental protection and stewardship. Potential

effects of the project on the environment are limited because the inventory is low-level waste and the NSDF has been designed with consideration of site-specific characteristics and is suitable for the proposed inventory.

CNL is fully equipped and ready to proceed with construction of the NSDF, meeting all the required standards of the licence's Safety and Control Areas.

Should a licence to construct the NSDF be granted, CNL is the licensee and we are held accountable -- appropriately so -- to meet our regulatory requirements and our commitments.

CNL must demonstrate to numerous regulatory agencies that we are constructing the NSDF Project as designed. The staff of CNSC and other agencies with regulatory authority routinely inspect our operations and report on our compliance to the requirements. In addition, CNSC staff have a full-time onsite inspector presence which provides direct and unencumbered access to observe our activities.

CNL is also held accountable through routine reporting, including the Annual Compliance Monitoring Report each year to CNSC and made available to the public, and by CNL's participation in the annual Regulatory Oversight Review meeting.

Separate from these annual interactions,

CNL will appear in front of the Commission in 2023 for a mid-term update on the Chalk River licence. We will be required to apply for a licence to operate the NSDF and so an additional licensing request with supporting information will be required prior to transitioning to the operation phase.

It is through these many venues that CNL is held accountable. There are many compliance checks along the way that are planned and many unplanned inspections that will occur by various regulatory agencies during NSDF construction and the subsequent phases of the project. It is a result of these interactions that CNL will be held accountable to do what we say we will do.

I would like to close by reaffirming our commitment to do the right thing for our families, our community and our environment. CNL employees live and work here. We raise our families here. We swim in the river. We use the river as a drinking source for our home and cottages. We are committed to this project because it is the right thing to do now and for future generations.

That concludes my formal remarks for today. However, we recognize that engagement and communication about this proposal must continue well beyond the proceedings this week. As shown on this slide, there are many ways for the members of the public to learn more

about this project and any of our activities.

We have also developed a video recently to help describe how the NSDF is constructed, highlighting its many safety features, and that video can be viewed on our project website.

Of course our staff is available to answer any questions the Commission may have.

Thank you very much.

THE PRESIDENT: Thank you, Mr. Boyle.

I will now move to the presentation by CNSC staff, as outlined in CMDs 22-H7.B / 22-H7.C.

Ms. Murthy, please proceed.

***CMD 22-H7.B/22-H7.C**

Oral presentation by CNSC staff

MS. MURTHY: Thank you.

Good morning. My name is Kavita Murthy and I am still the Director General of the Directorate of Nuclear Cycle and Facilities Regulation.

CNSC staff's presentation today will provide supplemental information to that which we presented at Part 1 of these hearings for Canadian Nuclear Laboratories' application to construct the Near Surface Disposal Facility, or NSDF.

With me today in person and remotely are many specialists who are available to answer any questions that the Commission may have.

This slide shows where we are in the regulatory review process for the proposed NSDF project and provides a brief context for today's presentation.

CNSC staff's conclusions and recommendations related to the proposed NSDF Project were presented to the Commission during Part 1 of this public hearing held in February 2022. A detailed description of the NSDF and CNSC staff's regulatory review, including the Environmental Assessment Report, can be found in CNSC staff's CMD 22-H7.

We are currently in Part 2 of the public hearing stage of the regulatory review process, as shown by the box in bold on this slide.

CNSC staff carefully considered each of the 165 interventions submitted and organized the topics under themes, shown on this slide, as set out for this hearing by the CNSC's Registrar.

During Part 1 hearings, the Commission directed CNSC staff to address concerns raised by intervenors related to inconsistency with international standards. CNSC staff Supplemental CMD 22-H7.B provides a table that addresses this request and each of the themes.

This part of the hearing deals with the requested licence amendment.

I will pass the presentation now to Ms. Kim Campbell, Director of the Canadian Nuclear Laboratories Regulatory Program Division.

MS. CAMPBELL: Good morning, President Velshi and Members of the Commission.

For the record, my name is Kim Campbell, and I am the Director of the Canadian Nuclear Laboratories Regulatory Program Division.

The Chalk River Laboratories site is currently authorized to operate under the conditions of its Nuclear Research and Test Establishment Operating Licence which was issued by the Commission in 2018 and its associated *Licence Condition Handbook*.

As a new Class 1B nuclear facility, the construction of the proposed NSDF is a change which is outside the current licensing basis of the Chalk River Laboratories site. Therefore, CNL requires approval by the Commission before construction of the proposed NSDF can occur.

If the Commission authorizes construction of the NSDF, CNSC staff will amend the Chalk River Laboratories *Licence Condition Handbook* to include the facility.

CNSC staff have proposed two new facility-specific conditions related to CNL's implementation of licensing, regulatory actions and environmental assessment regulatory commitments. These two conditions, shown as G.7 and G.8 on this slide, were reflected in the proposed licence and proposed *Licence Condition Handbook* included in CNSC staff's Part 1 CMD.

As indicated in the proposed *Licence Condition Handbook*, CNL would be required to update and report on the progress of implementing the licensing regulatory actions and environmental assessment regulatory commitments during the NSDF construction. CNSC staff will monitor these actions to ensure regulatory oversight of CNL's completion of these commitments.

CNSC staff reiterate that even though CNL was required to submit information for all phases of the project, the current licensing request is for construction of the proposed NSDF. Operation of the NSDF is not a matter for consideration at this time. Should the Commission approve construction of the NSDF, CNL will be required to apply to the Commission for authorization to perform other project activities, including operation.

The diagram on this slide is used in many CNSC outreach activities. It outlines the CNSC's overall licensing and compliance processes. The licensing

regulatory review process, which is where we are for the NSDF Project, is shown in the orange circle on the right of the slide.

When licensees submit a licence application, they must demonstrate that they meet all regulatory requirements. CNSC staff evaluate the submission against requirements and based on their professional evaluation of the application make their recommendations to the Commission in a public hearing such as that we are in today.

Should the Commission grant a licence, the licensee must adhere to all requirements and commitments made in the licence application. CNSC staff measure compliance against the licence and regulatory requirements, as shown on the left side of the diagram, depicted by the light green circle that includes verify, enforce and report.

Specific to this project, should the Commission authorize construction of the NSDF, CNSC staff will finalize the draft compliance plan before construction activities begin. CNSC staff will perform the activities in this compliance plan to verify that the requirements associated with the CRL Operating Licence and the associated *Licence Condition Handbook*, including the proposed two new licence conditions, are being met.

Additionally, CNSC staff would report on the status of the project and their compliance oversight during updates provided as part of the CNL regulatory oversight report.

CNSC staff conclude that the draft licence and the LCH submitted to the Commission in CNSC staff's Part 1 CMD, CMD 22-H7, remains valid and appropriate for the licensing action, commitments and regulatory oversight for construction of the NSDF.

I will now pass the presentation back to Ms. Murthy.

MS. MURTHY: Thank you. Thank you, Ms. Campbell.

As we conclude our presentation today, CNSC staff would like to restate our conclusions related to CNL's application to construct the proposed NSDF as presented to the Commission at Part 1. That is, taking into account the environmental assessment regulatory commitments and licensing regulatory commitment actions, the proposed NSDF Project incorporates measures to protect people and the environment and is not likely to cause significant adverse environmental effects, and the potential impacts to Indigenous and/or treaty rights as a result of the NSDF Project have been adequately identified, assessed and mitigated.

Thank you for your attention. We are now available to answer any questions that the Commission may have.

THE PRESIDENT: Thank you, Ms. Murthy and Ms. Campbell.

We will move to our next presentation, which is by the Town of Deep River, as outlined in CMD 22-H7.39. We have Mayor Suzanne D'Eon making the presentation.

Mayor D'Eon, over to you, please.

***CMD 22-H7.39**

Oral presentation by the

Corporation of the Town of Deep River

MAYOR D'EON: Thank you.

I believe Reeve Glenn Doncaster was speaking initially via Zoom. If not, we can say his part.

REEVE DONCASTER: Sure.

MAYOR D'EON: He is not coming up.

THE PRESIDENT: Go ahead.

REEVE DONCASTER: I'm here.

MAYOR D'EON: Great.

REEVE DONCASTER: President Velshi and Commission Members, thank you for the opportunity to

present today.

My name is Glenn Doncaster, I am the Reeve of the Town of Deep River and I am a County Councillor with the County of Renfrew.

I am here with my colleagues, Mayor Sue D'Eon and the Town's CAO, Mr. Sean Patterson.

We are here on behalf of Deep River Council and our constituents. As the host community of CNL, the Town of Deep River supports the activities at the Chalk River site and, more importantly and most importantly, the cleanup of the legacy wastes and the added protection of the Ottawa River.

Not only do we support the activities of CNL, I want to make it very clear that we hold CNL accountable for what they do.

By way of history, in 2017 Deep River Council commissioned an independent review of the NSDF proposal, the Draft DIS, and submitted a series of questions into the CNSC's review process. Since then we have continued engagement with CNL to discuss outstanding issues and concerns and in 2022 the Council of the Town of Deep River, a population of 4,200 people, unanimously approved our resolution in support of the NSDF, which details the rationale for our support.

As this is Day 5, we will not try to

repeat what many others have said. However, I will summarize by saying that our job is to represent our citizens and our citizens expect the Commission to make a considered decision informed by science and by experts in their field. We appreciate and understand the importance of the CNSC's role and we rely on you to carefully review the NSDF proposal and to ensure that its design, operation and oversight is carried out in a very safe, robust and environmentally sound and sustainable manner.

The NSDF is the right technology, the correct science and the right location to protect the Ottawa River in the future.

I will now pass this over to Mayor D'Eon. Thank you.

MAYOR D'EON: Thank you, Reeve Doncaster.

Like other intervenors, we have our own informed opinions, and like most other intervenors, I personally bring no new evidence and no specific technical knowledge. But what Deep River brings is years of experience living beside and working with a highly ethical, environmentally focused and trusted member of the community who consistently works to improve, communicate and to be as transparent as possible and who has provided hundreds of opportunities over the past six years for interested parties to be informed with facts and data about this

project.

Mayor Foster of Clarington has capably informed you all of how professionally CNL have handled the construction and operation of a similar low-level disposal facility in the Port Hope area and how they receive regular monitoring reports from CNL. They have no concerns.

Some intervenors have made bold claims that the nuclear industry is keeping information from the public when I have personally observed that CNL has been nothing but open and transparent to all of these groups, providing all requested information and answering all questions when asked, only for such information to be repackaged in attempts to misrepresent and attempts to proliferate fear and alarm.

Speaking from personal experience, like Dr. Hendrickson and the Fort William cottagers I also sit on CNL's Environmental Stewardship Committee and I have attended most of the 17 meetings in which NSDF has been discussed.

I have witnessed the transparency and care CNL takes to inform, to respond to all questions and to meet all information requests, and so I see such claims as having no merit.

Deep River Council knows that the nuclear industry is the most highly regulated and safety-focused

industry in the world and we know that the CNSC is recognized globally as one of the world's top regulators. I personally believe in the immense benefits and capabilities of nuclear energy technology and medicine and I am aware that regulators demand robust designs and backups for all critical safety systems, which Council are confident this facility meets.

I do recognize the benefits of challengers to any project. Those with legitimate questions can help make a product better and I believe that has been the case here.

Many of the intervenors this week refer to their love of the environment and concern for the Ottawa River. I have met and I know many CNL employees. They also live in Renfrew County and the Pontiac. They drink from and swam in the Ottawa River and they are passionate about safety, the environment and getting it right. It is their River, too.

When I heard the representative from the Pontiac Green Party on zero evidence unfairly disparage the people, the company, the Canadian nuclear industry and this Commission, I realized how emotional this process is and that people who bring passion and scepticism but little evidence attempt to influence what should be a highly scientific decision.

Ironically, these same groups and individuals, while purporting to care about the environment, do not condemn the fossil fuel industry, whose uncontrolled and unmonitored waste emissions are resulting in the more catastrophic weather conditions we are facing. Instead, they choose to focus all their energy against CNL, the NSDF and nuclear, one of the only sectors which tracks, manages, treats and monitors all its waste byproducts and which actually can help reduce climate change.

Intervenors mention the risk of gross damage to the NSDF due to climate-fuelled catastrophic weather, ignoring the fact that the NSDF has been robustly designed to withstand such future weather scenarios with an enhanced factor of safety.

The CNSC's website contains the Commission's Code of Conduct, which states:

> "[Board] Members are expected to: make decisions based on the merits and evidence presented ..."

I think when you look back you will find that most intervenors presented little evidence. Just like me, they presented their opinions and personal biases.

The website also states, the CNSC website, that:

> "When making regulatory decisions

> about the management of radioactive waste, the CNSC will seek to achieve its objectives by considering certain key principles in the context of facts, not opinions, and further consider the circumstances of each case, including that the management of radioactive waste is proportionate to its radiological chemical and biological hazard." (as read)

Proportionate.

I suggest intervenors have provided the Commission with many red herrings to pursue, including submissions such as the waste should be in above ground concrete vaults; the waste should be in a geological waste management facility; the waste should be easily retrievable. All these alternate suggestions, while perhaps well intended, fail the proportionality test.

It also appears clear to me that even if CNL proposed to place low-level waste in the centre of the earth at a cost of trillions of dollars, in one person's opinion it wouldn't be good enough.

Another repeated suggestion has been, "The facility should be away from the river, farther away from the river, 25 kilometres from the river."

Moving the facility further away from the Ottawa River does not stop gravity. Water still flows downhill. Physically capturing any leachate and treating it to drinking water standards actually resolves any issues.

It is my opinion that open-minded intervenors who listen to qualified experts in their field should be demanding this facility be built immediately to contain and isolate the existing low-level waste already on the site.

CNSC's website also states a principle the Commission shall consider in making regulatory decisions about the management of radioactive waste. It is that measures needed to prevent unreasonable risk to current and future generations from the hazards of radioactive waste are developed, funded and implemented as soon as reasonably practicable.

Multiple intervenors when confronted with technical support of the NSDF proposal by government and CNSC technical experts have now asked you to adjourn the current proceedings, wait for the Auditor General's report, await NRCan's integrated waste management review, await a standing parliamentary review. These are about as relevant as the Leafs waiting for the Cup.

--- Laughter / Rires

MAYOR D'EON: The delay and do nothing option does not enhance protection of the Ottawa River, it does not resolve the existing waste issues and it does not meet the "implement as soon as reasonably practicable" mandate of the CNSC when dealing with waste. Facts matter, facts are evidence and we trust that you will give weight to real evidence.

The many opinions you have heard, including mine, are not evidence. Should we deal with nuclear waste based on emotion or based on scientific evidence? In the words of my mayoral predecessor David Thompson, "This is a scientific issue seeking a scientific solution."

We believe the NSDF is the right proportionate solution to the problem and should be implemented as soon as reasonably practicable to protect the Ottawa River and surrounding environment and that the school of red herrings which you have been subjected to this past week should be recognized for what it is.

Please consider the facts and technical merits. A decision to approve, not to approve or to further delay implementation increases risk to the Ottawa River and condemns Chalk River Laboratories to yet another generation without a solution.

Thank you and meegwetch.

THE PRESIDENT: Thank you, Mayor D'Eon and Reeve Doncaster, for the presentation.

Dr. Lacroix will start off with the questions.

MEMBER LACROIX: Thank you very much, Mayor D'Eon and Reeve Doncaster, for this presentation. It was quite interesting.

What I appreciated the most is that you provided us with an updated statement. I have no questions.

THE PRESIDENT: Okay. Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madam Velshi, and thank you for your presentation and your clarity in sorting through science and opinion, including your own opinion.

I don't have any specific questions. Thank you.

THE PRESIDENT: And I, too, have no questions because, as you said, this is Day 5 and we've gone through pretty much many of what you call "red herrings" issues.

Thank you for your submission and your presentation and your appearance today.

We will move to the next presentation, which is by the County of Renfrew, as outlined in CMD

22-H7.101.

We have Councillor Peter Emon making the presentation. Over to you, please.

*__CMD 22-H7.101__

Oral presentation by the County of Renfrew

COUNCILLOR EMON: Good morning, President Velshi and Commissioners. I am County Councillor Peter Emon, speaking on behalf of Warden Debbie Robinson and representing the County of Renfrew Council and our 17 Municipalities, with a population of 107,855 people.

The County of Renfrew has submitted a written intervention, and my presence today is to support that intervention.

We represent the majority of residents living in close proximity to Chalk River Laboratories. I must add that we support and endorse the comments of Mayor D'Eon and her Council and her community.

We support the application by Canadian Nuclear Labs for a site licence amendment to authorize the construction of a Near Surface Disposal Facility. We recognize an appropriate disposal facility is required to responsibly manage the low-level nuclear legacy materials present on the CRL site.

We also understand and accept that the most efficient, safe and long-term management of low-level nuclear waste materials from CRL operations is to dispose of it at the large, secure and expertly staffed Chalk River Laboratories, a site owned by the Government of Canada.

We are satisfied that the NSDF solution is the correct solution to the management of these materials. We recognize the professional, scientific, the design, the planning, the geotechnical and engineering work undertaken by the Canadian Nuclear Labs, overseen by AECL, has resulted in the plan for NSDF and the safe and secure long-term disposal of low-level nuclear wastes.

County Council supports the NSDF solution. It is essential to manage the low-level waste materials being collected from across Chalk River Labs' sites and resulting from the site cleanup of legacy waste and from the ongoing site renewal program of removing redundant and aged buildings.

We want and expect CRL and AECL to maintain the laboratories and the environment safely and securely. We want the site renewal projects to proceed. We want the waste materials to be stored safely and securely, and we want this to happen as soon as possible.

We have heard from all quarters a desire for environmental protection, and we share that desire.

That is why we desire a safe and secure disposal solution to be deployed now. Why hesitate any longer?

Over 2020 and 2021 the County of Renfrew engaged MDB Insight, metro economics and independent environmental consultants, to study the social, economic and environmental impact of Chalk River Labs and CNL. The analysis clearly demonstrated the critical role of CRL in supporting the people and economy of Renfrew County.

CNL employs approximately 2,700 employees at the labs, paying $380 million in salaries and benefits annually. The economic impact of those salary dollars and operational expenses are the foundation of our economy, especially in the northwest sector where we are meeting today.

This nuclear legacy remediation work, site renewal and development of new labs requires that an appropriate disposal facility be available to accommodate the nuclear waste materials resulting from this important work.

This is the reason and the need for an NSDF. It is not all about money and financial benefits to the people and businesses of Renfrew County that we receive from CRL operations. That is vitally important and significant to the future and sustainability of our economy. It is also about the continuation of the

world-leading scientific research and development that has been carried out at CRL for 77 years. This is Canada's largest science and technology centre. The work that has been done there and is planned for the future enables Canada to address scientific and technical challenges in many aspects of life and commerce, far beyond solely nuclear.

The legacy of R&D, including two Nobel Prizes, must be built upon and continue for future generations. We are proud of that legacy and proud to host such important work here in Renfrew County, and we wish it to continue and expand and diversify.

The site renewal and NSDF project will support laboratory operations and employment for future young Canadian science, technology, engineering and mathematic students, continuing that unique and vital support to higher education.

CRL is one of the very few large government-owned and licensed nuclear research science technology and development sites in Canada. While there is a private contractor managing operations at CRL, this site, the nuclear operations there and the long-term responsibility and liability resides, and always will reside, with the Government of Canada and AECL on behalf of the people of Canada.

There is no more ideal site in Canada for long-term management of this type of low-level nuclear waste than CRL.

Of importance to recognize, CRL already contains the vast majority of the material that is proposed to be stored in the NSDF. Common sense and best practices would dictate, and we would prefer, to have this material remain in place rather than have it transported on our public roads through our communities.

The large CRL site and entire watershed downstream on the Ottawa River will benefit from the environmental remediation underway to collect low-level nuclear waste for permanent disposal in the secure, monitored and managed NSDF, equipped with a leachate management and processing facility. This will directly ensure much greater protection for the Ottawa River and all surface and groundwater on the site. Government oversight will always continue over the long term and at every step of the process.

The NSDF concept is not new, nor is it untried. We have already learned this week about the excellent performance of the NSDF at Port Hope on Lake Ontario, just east of Toronto. Many of us travel past the NSDF, which abuts Highway 401, when we travel to the GTA.

This national nuclear legacy must be

properly managed and stored in a highly engineered facility for the long term. Representing the residents of Renfrew County, many of whom are very close neighbours to CRL and many of them employees at CRL, our County Councillors are quite aware of the activities at CRL. County Council has been informed and kept informed of the activities. Many of our members have visited the site over the years and have received delegations from the senior leadership of AECL in past year and more recently from CNL. The regular comprehensive and open communication from AECL, and now CNL, have been informative and helpful to all members of the public across the county and beyond.

One of our Councillors sits on the Environmental Stewardship Council and reports back to us on a regular basis.

CNL has been a delegation to the Eastern Ontario Wardens' Caucus with senior leadership team meetings with elected leaders from the entire area.

This project will enable us to build on the 77 years of world leadership, scientific R&D conducted at CRL rather than losing it all. And the broad range of scientific activity presently underway and proposed for the future is not just serving the nuclear industry, it is also serving and enhancing Canada's best and brightest in fields of chemistry, biology, physics, radiopharmaceutical

medicine and cancer therapy, metallurgy, advanced materials, mathematics, computer modelling and simulation. Environmental science and many other disciplines conduct research and design at CRL, supporting many institutions, universities, businesses and industrial sector.

The new hydrogen laboratory is focused on applications of hydrogen as a clean energy source. The small modular reactor research will address the increasing demands for electricity worldwide. SMRs will contribute to the reduction of fossil fuel use in Canada's north and resource extraction.

The County of Renfrew has been a willing host and partner to Chalk River Labs for 77 years and three generations. We have benefited economically and socially from the laboratory operations and from the thousands of employees who have lived and worked here. The presence of these employees has supported our communities, our organizations, our clubs, our schools, our health facilities and our small businesses. It has made our region richer in many ways, and we are proud to be the home of this world-class science and technology facility.

We have a responsibility to our residents and to all Canadians to assume a share of responsibility for the work conducted at CRL. We assume that responsibility to host the disposal of the materials

created here. We cannot in good faith hand off a waste material to another community when we have a safe and viable solution at CRL.

The NSDF solution is Canadian and global experts have developed and proposed it. This process has been long, exhaustive and thorough, and it's time to move forward. This is a proposal to create a highly engineered disposal facility to receive low-level nuclear waste.

Thank you.

THE PRESIDENT: Thank you very much, Councillor Emon, for your presentation.

We will start with Dr. Lacroix again.

MEMBER LACROIX: Once again, thank you very much, Councillor Emon, for your presentation. I have no questions.

THE PRESIDENT: Ms. Maharaj?

MEMBER MAHARAJ: I have no questions. Thank you so much for coming.

THE PRESIDENT: Councillor Emon, towards the end of your presentation, you said this is waste that is in our County and we need to manage it.

Do you hear from your constituents about waste coming from other AECL sites? We've heard a number of concerns from folks that CNL should not be accepting waste from, say, Whiteshell or other sites.

I just wondered if you were hearing similar concerns from your constituents.

COUNCILLOR EMON: Yes, thank you.

We do on occasion. It's not an every-day communication, it's not an every-month communication. There will be bursts of it, and it is from people who have spoken about the issue in the past. I think for the most part people are secure in the knowledge that it's transported safely.

THE PRESIDENT: Thank you very much. Thank you for your appearance today.

We will move to our next presentation, which is by Mr. David McNicoll, as outlined in CMD 22-H7.72.

Mr. McNicoll, over to you, please.

***CMD 22-H7.72**

Oral presentation by David McNicoll

MR. McNICOLL: For the record, David "red herring" McNicoll. I couldn't resist jumping to the bait there. I'm so sorry.

Good morning, President Velshi, Commission Members and interested citizens. I'm working from my speaker notes this morning, so I hope you have those.

I think what I will do is, first, just simply state that I do not support the requested licence amendment, and by sort of contour I offer ten personal comments without prejudice.

I think I will nod a bit to the fact that there have been many presenters who have made points that are sort of redundant to mine, or mine become redundant. So, I will try and concentrate on the novel or the new aspects.

It rather overstates it, but I was born on December 3, 1943 on planet Earth. My birthplace was near the junction of three sweet-water rivers on unsurrendered, unceded Aboriginal land. I love this place.

So, with a nod to Dr. Lacroix, I'm on a planet, so my knowledge is sketchy. I have to try and orient myself. But no matter if I'm in an EA up in Pembroke looking at a site, I'm still on a planet.

So, that was courageous of you yesterday.

This junction where I was born also contains various legal fictions such as Ottawa, Ontario. My wife Janice and I live on Sunnyside Avenue in a Zone R3M sub-zone, which the entire zoning three-volume zoning bylaw cannot see any global reality. In fact, it doesn't see the reality of the study area of our house. It sees a future reality. That's the way the law works. So, there's a

tension here.

I'm going to skip now to point 8 in my personal comments, because I think it's germane to your process.

In 2017 to 2019, the Government of Canada held a consultation on the Ottawa River which, based on the original Private Members' Motion M104, was to consider the formation of an Ottawa River Watershed Council. Ultimately, following an amendment to M104, the Ministry of Environment and Climate Change Canada released a simple policy document to conclude the matter. The document was titled "An Examination of Governance, Existing Data, Potential Indicators and Values in the Ottawa River Watershed".

I offer no comment on the policy document, except to note that it is not led by adequate science. So, science turns out to be a can of worms. It's not a slam dunk if you have science or don't have science. That's a spectrum you can debate: what is or isn't good science.

In any event, after the consultation, one is left with no proposed council, no hydrological cycles to export to the global community and all human enterprise not tracked, such as nuclear facilities, dozens of hydro dams, several operating mines and several other points regarding flora and fauna that were made in submissions.

I could also add the forestry companies in Quebec in the small Autochtone communities. This is acritical rate determining comment, if I'm correct about it. If one chooses not to track water, one cannot track biodiversity, nor climate change, nor can one track global radioactivity as such. This is current practice of Canada, notwithstanding the current federal mandate letters.

Put a different way, there is a tension between the rule of law if it is directly or indirectly tries to avoid reality and earth system science, which tracks matters over time. Thus environmental assessment, now federal impact assessment, is still a point in time.

So, in the same way that scientists are confronted all the time with trying to collect data through time, the EA avoids that by just making it a point in time.

It's not useful to me. I'm trying to move in a very broad way through time.

So, the fact that the report by the Ministry of Environment and Climate Change effectively is unsigned, I make in different other points in my presentation. The documents from CNL, from CNSC and, for example, the Natural Resources Canada Modernizing Canada Policy for Radioactive Waste, it too does not to me reflect the broad tenets of good science. They may be technically 100 percent correct. I'm certainly not here to comment on

anything to do with the radioactivity. I'm here to comment on the lack of process to steer the entire planet. And that is done partially through hydrological cycles. If you don't track those in some way, you don't track those in some way. There is no other way to avoid it. Right?

Point 9 explains in part why I'm here: because the actual discussion of whether or not we should form a council never rose through a Standing Committee in the City of Ottawa. So, where is the representation of the citizens? Where were the citizens given the opportunity to comment?

So I think, in part, that might accommodate the fact that several intervenors have arrived in a sense outside of their own political process. If I would have been able to contribute my comments through the Standing Commmittee, at least I would feel -- as I did, by the way, when eventually CNL came to Ottawa. I don't know the dates, but they did come over a motion that arose very awkwardly through to Ottawa City Council.

I will tag the first couple of points again.

I'm on a planet. So, no matter what you tell me, I'm always trying to find that planet again.

In the case of this facility, I personally would be looking for circular economy. What is the share

of global radioactive waste? What is the new waste that's going to be produced as part of the gross domestic product or as part of a standard economic view that several of the presenters have offered? But that is not before you. We are not assessing a share of a global waste legacy and we are not assessing a share of a future legacy or a future production. That's not helpful to me.

The third and fourth point, I will just tag those. In this case, I am more or less going back over what would be old territory for you.

In the seventies Janice and I met Bill and Mary Commanda, and I came to appreciate his view for the Chaudière Falls as a sacred place, a meeting place for 5,000 years. He wanted a park and a Peace Institute. I still think that's the just vision for that site. It's also politically a no-brainer. Indian Islands, Quebec on one side, Canada and Ontario on the other, it was a beautiful solution. Instead, we have a solution of condominiums.

I find that not a very useful solution, but it was brought to the scene, started by the City of Ottawa, by that corporation.

I still acknowledge the fact that Bill's vision calls for this river to be a sacred place.

That poses a lot of questions, and I went

to the Constitution of Canada and right at the top it refers to the foundation being the principles of the supremacy of God and the rule of law. The rule of law is well represented. What does the supremacy of God mean? There's the debate. I'm looking to see if there is a chance for the rule of science to have some entrée here into this matter.

I thank you this morning. I wish you good luck, of course. And I wish well to CNL and to CNSC, all of the staff, of course, as well. Thank you.

THE PRESIDENT: Thank you very much, Mr. McNicoll.

I'll see if my colleagues have any comments or questions.

We will start with Ms. Maharaj.

MEMBER MAHARAJ: Thank you, Madam Velshi.

Thank you for your very interesting perspective. It's refreshing to remember that we are part of a globe, not just a space, a tiny space or a point in time.

I did have a concept question. You are a philosopher and I have a concept question for you.

You have spoken and you have given an example about when you were canoeing with your wife and collected rainwater and were told that Chernobyl

potentially could have an impact on that rainwater and you weren't to drink it.

If you take that concept, do you see value in ensuring that the low-level waste that is currently located at the Chalk River site and is currently in less than modern, some of it is in less than modern controls, do you see a value in moving that waste to a place where it has more modern control? And I won't qualify that by saying best available technology or modern, just better, just better control.

Do you see a value in your global world view of doing that?

MR. McNICOLL: Once you enter the concept, again, from my broad view, we first met -- we canoed through Pinawa and met -- Bill Mathers was working at the site there and they had been looking at deep, sort of, depository burial. And I always filed that as a best practice, so it's not a very technical view, I always thought that made sense.

When Janice and I sit down and we tried to decide on a personal level where our charity dollars or our involvement dollars are going, it turns out to be kind of complicated. Is it is going to the food bank in your own town? Is it going to Médecins Sans Frontières who risk their lives, you know, in very dangerous conditions? So I

would coach it that way, I would say absolutely. But in my terms of circular economy, what is the production of nuclear waste that we are envisioning and does that contour your solution here?

So I'm not commenting on this particular solution, naturally I'm very uneasy about it. But I totally recognize the need to deal with it. So that's -- you know, not on a technical basis, but I'm a little bit uneasy. We seem to be moving towards any better articulation of the actual waste that's tehre, and I think that's a good thing.

THE PRESIDENT: Thank you. Dr. Lacroix?

MEMBER LACROIX: Well, thank you vey much, Mr. McNicoll for your presentation --

MR. McNICOLL: No, sorry, that's Red Herring, sir.

MEMBER LACROIX: Oh, Red Herring, I'm sorry. Sorry.

Staff, are you aware of this document, the amendment M104 and that led to a booklet on an examination of governance, existing data on the potential indicators and values in the Ottawa River Watershed?

MS. MURTHY: Kavita Murthy, for the record.

I will see if our colleagues from ECCC are

online, to see if they can speak to it and then we'll follow up if we have anything to add.

THE PRESIDENT: Is Ms. Ali on the line, or anyone else from Environment and Climate Change Canada? Ms. Ali? Maybe Ms. Murthy, if you can follow up on that, please?

MS. MURTHY: We will follow up with ECCC. I don't have any specific, myself, I don't have any specific knowledge of it. But if you would permit us, Dr. Lacroix, there are regional monitoring networks. We could speak to that for this region.

You will recall that earlier this week we had also spoken about the monitoring of the water in the Ottawa River, but there is other regional monitoring networks in this region. So if you're okay with that speaking to that, I will ask Dr. Kwamena to speak to that.

THE PRESIDENT: So I see Dr. Kim -- Mr. Kim is online, shall we start there first? Mr. Kim, over to you please.

MR. KIM: Good morning, Madam Velshi, my name is Duck Kim. I'm the Senior Nuclear Coordinator for Environment and Climate Change Canada. Could I -- I think if we could get first clarification of the question?

MEMBER LACROIX: Well, the question basically is that are you aware of the existence of this

document, and how is this document related to the NSDF project?

MR. KIM: I have to admit, we're not familiar with that document. However, in terms of monitoring of the overall, so region and basin wide data consolidation of the various environmental data. Okay. I see the M104 Watershed -- so we can get back to you about this specific report, whether we are aware of it or not.

But my understanding is that we're not aware of this particular report, but we are working with the CNSC under a project to consolidate the data from all the various sources, specifically to do with nuclear -- so radioactive substances, and other substances, contaminants of interest in the Ottawa River Watershed. And so, that project is in progress right now to put all that data together.

MEMBER LACROIX: Okay. Thank you.

THE PRESIDENT: Ms. Murthy?

MS. MURTHY: Yeah. Nana Kwamena, if -- or someone from the Environmental Protection group, please go ahead.

DR. KWAMENA: Dr. Nana Kwamena, for the record.

I think I'd just like to provide a little bit more context to the information that Mr. Kim just

provided. So in response to a lot of what we've been hearing over the years with respect to availability of data, we have been working with Environment and Climate Change Canada to collate all the existing environmental data in the Ottawa River Watershed Region. And so we're doing this regional information monitoring network that will be collecting all that information and putting it in one spot, and putting it on the open government platform.

So that's something that's in progress. We've just started at work, but it's something that we are moving forward in a phased approach. And should we -- based on the results of this initial phase of collecting all that data together, we will explore whether or not to implement a monitoring program as well.

I would also like to highlight that as part of this initial work we're also working with some Indigenous Nations and communities to combine the western science along with Indigenous knowledge as well. So that is an initiative that we are beginning.

THE PRESIDENT: Okay. Thank you, Mr. McNicoll, for appearing in front of us today. Thank you.

MR. McNICOLL: Thank you.

THE PRESIDENT: We will move to our next presentation which is by Mr. Martin Flood, as outlined in CMD 22-H7.46 and .46A. Mr. Flood, please proceed.

***CMD 22-H7.46/22-H7.46A**

Oral Presentation by Martin Flood

MR. FLOOD: I am here to urge you to recommend that the site for the near surface disposal facility be moved well away from the river.

You've been presented over the past week with the scientific rationale for constructing the NSDF and for its placement within a kilometre of the Ottawa River. But what about the human factor?

The CNSC under section 24(4) of the *Nuclear Safety and Control Act* has a responsibility to assure itself who that the proponent is qualified to provide for the safety and environment of the people.

I would urge you to look beyond the science and to consider that the project would be carried out by a group of humans over close to 100-year period, under the umbrella of the Canadian National Energy Alliance. Do you have a high degree of confidence that this group has the competence and integrity to do the job?

I'm presenting the rationale from our recommendation under four headings, a flawed business model, competency of the proponent, trust in the proponent, and unknown risks.

There is a business model that's currently done in the engineering field, it is to have one company design, build, operate any given project. For this model to be successful the owner must remain in charge, and the owner must set ironclad criteria at each stage. The government version of this model is called government owned company operated, or the GoCo model.

So in this case, who are the players? Well, we have the owner, the federal government, represented by the Atomic Energy of Canada. We have the proponent, the Canadian National Energy Alliance, through its subsidiary CNL. And the major private sector entities of CNL are the CSN(*sic*) Lavalin, Jacobs Engineering, and Fluor.

The GoCo Contract signed between the federal government and the Canadian National Energy Alliance has not been made public. Question, what are the ironclad criteria set by AECL on behalf of the owners? These remain unknown. What we do know is the proponent has stated that they have no liability if things go wrong. Which means, no leverage for the owner to hold the contractor to account. We all know that the private sector's first priority is its bottom line and its shareholders, and that's an accepted way of doing business.

We see as well that there's no financial

accountabilities through the public accounts of Canada. AECL has refused to divulge what they pay the Canadian National Energy Alliance.

At the end of the design stage, we have a deeply flawed choice of site for the NDF in my view. They looked at the 10,000 acres that was owned by the Atomic Energy of Canada, they didn't look any further than that and I'm assuming that's because they were told -- that's what they were told to look at. But there is 60 -- some 60,000 acres in addition abutting the lands in the -- by Garrison Petawawa and the forestry research station. This could be looked at.

We see as well, what happened was the unilateral decisions to move nuclear waste from other locations to Chalk River, 140 municipalities in the Ottawa watershed said no. There was no consultation with the general public or affected municipalities, unlike the DGR Project, where there was a process or is a process ongoing, of a willing consent by the host communities. There was also a proposal floated to bury the world's nuclear waste in Newfoundland and Labrador. What happened there? The politicians stepped in and simply said, no.

So what's the difference between those two, for example, and this place with no consultation? It seems that the private sector companies in charge of

nuclear waste in Canada, AECL on behalf of the owner clearly is not in charge, or if they are they're certainly not making it known. Despite all the rules and laws, the proponent has far too much authority. The question needs to be asked, has AECL signed away its ownership authority? And, has AECL the in-house expertise to manage this project? If these questions aren't answered the result is a disaster waiting to happen at the construction stage.

How did all of this happen? Well, I might take some clues from the Auditor General's special examination of AECL in 2017. And the question needs to be asked there, did these shortcomings result in poor decisions by AECL in letting contract to the Canadian National Energy Association?

With respect to the site itself, this has been addressed I think by many other intervenors, so I'll leave it at that, except to better it as well there is additional federal lands that can be considered. So once again, with all of these questions, mitigate the risk to the Ottawa River and move it well away from the river.

The competency of the proponent. Some of its histories -- recent history of their projects needs to be taken into consideration. Their track record in delivering what it has been contracted to do is less than reassuring. It took years to come to an agreement between

the citizens of Port Hope and the federal government on disposing of the nuclear waste in that community. Long before that project was anywhere near complete, this same company has applied for major changes. Is this a group that is a world class expert and knows what it's doing?

The lead member of the proponent CSN(*sic*) Lavalin, was contracted to consult the rail transit system in Ottawa. This project was not delivered on time, its eventual operation continues to be fraught with breakdowns. During construction the city engineers cited hundreds of instances, hundreds of non-conformances with the work. For example, the tunnel under the Rideau Canal leaked. There are many successful underwater tunnel projects all over the world, what does this say about the proponent’s ability to build a tunnel a few 100 feet under the Rideau Canal?

Two members of the consortium are cited and paid millions of dollars in fines in the U.S.A. This according to a violation tracker. The violations included government contracting related offences, environmental related offences, employment related offences, safety related offences, and more. What we see here are three companies in this consortium that feel they don't have to play by the rules.

In conclusion, it is imperative to take some action that will mitigate the very real possibility

that there will be serious problems during the construction phase. Part of it would be to move the NDF well away from the river.

There are issues of trust. The proponent consistently describes its proposal as using proven technology following international best practices and using state of the art methodology. These statements are misleading. To describe a process -- a project as using state of the art and international best practices says nothing about whether that technology is in fact sound. It only describes what the nuclear waste industry has produced in its very short history.

At the international level, CSN(*sic*) Lavalin was charged with illegal activities. Instead of accepting the internationally approved consequence, it pressured our Canadian government to give them a free pass. When our Justice Minister refused to go along with it she was forced to resign.

The consortium says it will monitor the NDF for 300 years. This is a meaningless claim designed to make the public feel good. Who can predict what a group of humans will do or not do over the next 300 years? This consortium could not even stay intact for five years.

As well, there are unknown risks. Science is based on assumptions that we see as valid today, but

they do change. Ask the people in B.C. whether the decks that were built years ago were predicted on extreme weather and so on. In this part of the Ottawa Valley, we have dams upriver. Will they stay intact? Will the government keep them up to date?

There's always human error factors as well. Think of 1952 and '58 at Chalk River, Chernobyl in Russia, Three Mile Island in the US., Hiroshima, and then there's the history of terrorism and war. This may seem remote but ask the people of New York City and the Ukraine.

In conclusion, I urge you to recommend that the site be moved away from the river. Common sense would say that this is the prudent thing to do. Other sites are available and have not been considered. The government is not in charge, the proponent has no liability, and the consortium is controlled by foreign companies.

Thank you.

THE PRESIDENT: Thank you very much, Mr. Flood, for your presentation.

And before I open the floor for questions, I just again want to reinforce we are a safety regulator, you know, we've got our mandate. There are many issues you have raised here that are kind of outside of our scope, though there are many that would spill over into the

performance of this particular project. So we're not really going to get into the governance model for this contract, etcetera.

But with that I will turn over to Dr. Lacroix first, please.

MEMBER LACROIX: Thank you very much, Mr. Flood, for your presentation.

I was going to ask a question about the GoCo model, but I will refrain from doing so. So I'll stick to the role that -- well, this is one question that you raised and I would like to have a clear role of AECL in setting up the criteria for choosing the site for the NSDF. So could I have someone from AECL? If I could reformulate, my question is that, how influential word you during the -- in the process of choosing this site for the NSDF?

MR. MacDONALD: Thanks for your question. Alastair MacDonald, for the record.

I'll maybe try and reiterate some comments we made earlier, just about the structure of the GoCo model, AECL as this enduring government entity is very clear on setting out what needs to be done. So we're very clear on our ask to CNL on advancing decommissioning, and advancing plans for improving the site, and moving forward with decommissioning projects, and including this disposal project.

We are not prescriptive on the why -- the what, sorry -- the how. I can get my words right. We're very clear on the asking what to be done, but we do not prescribe how to do it. So we leave that for CNL.

MEMBER LACROIX: So if I understand correctly, you didn't specify to CNL that you wanted this site on the chalk river campus?

MR. MacDONALD: No, we would not specify exactly where to put the site. We would leave that for CNL to analyze as per for the environmental assessment, and as per what they've done in the EIA.

MEMBER LACROIX: Okay. It's clear. Thank you.

THE PRESIDENT: Mr. MacDonald, maybe a follow up question. Who would have put the constraint on CNL to look at just AECL owned properties for a potential site for an NSDF?

MR. MacDONALD: I don't think there is a constraint. I think CNL have addressed that earlier on, in that you know, there's some good reasons why, you know, the use of an AECL site is appropriate in this case. You know, it's got an infrastructure, it is able to have a decent safety case, it minimizes the potential for transport. These issues have, I think, been covered, Ms. Velshi.

THE PRESIDENT: Thank you. No, I just

wanted confirmation. And so I think what I'm hearing, at least confirm, and I do apologize that these are questions they have been addressed before. Is that CNL started looking at first phase, just looked at properties owned by AECL and if there's a suitable site we stop there, if there isn't we would look further afield. Would that have been how you would have looked at this?

MS. VICKERD: Meggan Vickerd, for the record.

Yes, that's correct.

THE PRESIDENT: Thank you.

Ms. Maharaj? And thank you, Mr. MacDonald.

MEMBER MAHARAJ: Thank you, Madam Velshi.

My question is to the -- it's a little concerning to me that the intervenor feels that nobody has liability for the ultimate outcome of the project whether it be CNL, or whether it be AECL. To help to answer that disquiet of the intervenor, could I ask CNL or AECL please to clarify where the ultimate liability for the waste and the impact of the waste disposal facility resides?

MR. MacDONALD: Yeah. Alastair MacDonald, for the record.

I can be very clear in that the liability rests with us, you know, AECL, Government of Canada,

enduring entity. We take responsibility as per the Government of Canada policy for radioactive waste, and it lies with us, and it lies with the Government of Canada.

MEMBER MAHARAJ: Thank you, Mr. McAllister (*sic*). Mr. Flood, does that clarify the -- oh, okay.

MR. BOYLE: Excuse me. I just wanted to add -- Phil Boyle, for the record.

As the licensee, we are fully liable to comply with the license, meeting the technical requirements and the requirements in the license control -- *License Condition Handbook*. All of those rules, it is our responsibility to comply. Certainly, AECL has imposed on us as a requirement of the contract that we do so.

MEMBER MAHARAJ: As have we.

MR. BOYLE: Yes. But we absolutely bear and recognize that.

Mr. MacDONALD: And If I may just as well, just to reinforce a point Mr. Demarkar made in his opening presentation, and you know, the financial liabilities for all the work that we ask CNL to do are covered by us as well. And the financial guarantees and all the liabilities, you know, have been provided by the government of Canada. The current financial guarantee for AECL sites was provided by the Minister of Natural Resources in 2015. It continues to be valid, and we reinforced that to CNL in

August 2020, reaffirming that guarantee. And I know CNL have reaffirmed that financial guarantee to CNSC.

MEMBER MAHARAJ: Thank you. That answer to my question.

THE PRESIDENT: Mr. Flood?

MR. FLOOD: My point is, if the contractor has no liability, what leverage does the owner, AECL, have in ensuring that the work is carried out properly. That's my point. It's like contracting someone to build you a house and there's a clause in there that says the builder has no liability. Where does that leave the owner?

MR. MacDONALD: Alastair MacDonald, for the record.

At least the liability with us, as I said. CNL are also an enduring entity, as Mr. Boyle said, they will comply with the *License Condition Handbook* and any other conditions that are on this and any other project through a CNSC, or any other regulatory commitments, and we have that enduring liability.

There was no -- as I think I said earlier in the week, there is no for-profit element to be associated with our relationship with CNL. The CNEA, the parent body, that's a separate contract between us and them, and we can hold a -- we have various levers that we can use to hold CNEA to account. And just again, for

clarity, you know, these levers include making sure that we balance safety, protecting the environment, and the progress and delivery on projects. So you know, we have these levers that we can use.

THE PRESIDENT: Thank you, Mr. MacDonald. Mr. Dermarkar you've stepped forward. I don't know if you wanted to add anything? Oh, you just wanted to hear really clearly. Okay.

--- Laughter / Rires

THE PRESIDENT: Okay. Mr. Flood, in your slide deck on slide number 14, around trust in the proponent, a very critical aspect of any project delivery, your last point is "questionable attitudes towards the public". Can you elaborate on that, what led you to write that?

MR. FLOOD: Yes, during the information sessions that were held over that -- I guess in the years 2016, '17, somewhere in that time frame, I attended a number of those. One was at the -- in Sheenboro, and it seemed that it was -- the attitude seemed to be we're here to tell you what we're doing, as opposed to asking for your information.

And there were a couple of what I considered tough questions. One of them was from a woman who said, has CNL considered or looked at the issue of

radiation and cancer? And the dismissive answer and tone of voice was, everybody knows that cancer is a matter of lifestyle, period. Another question was, did CNL look at other sites on the 10,000 acres of AECL? And the once again dismissive answer was short and curt, it's been studied to death.

THE PRESIDENT: Thank you. I see CNL is making notes of those. So -- but thank you for sharing that with us. Mr. Flood, before we end this, I'll turn it over to you for any other closing comments you wanted to make.

MR. FLOOD: No, that's fine. Thank you very much.

THE PRESIDENT: Thank you for your intervention and for appearing in front of us today.

We will take a break now and we will resume at 10:55 a.m. Thank you.

--- Upon recessing at 10:41 a.m. /
Suspension à 10 h 41
--- Upon resuming at 10:57 a.m. /
Reprise à 10 h 57

THE PRESIDENT: Okay. If I can request you to take your seats, we're ready to resume please.

Our next presentation is by the MRC Pontiac as outlined in CMDs 22-H7.122 and 22-H7.122A. And we've got Ms. Toller presenting this remotely.

Ms. Toller, over to you please.

***CMD 22-H7.122/22-H7.122A**

Oral presentation by the MRC Pontiac

WARDEN TOLLER: Thank you very much. My name is Jane Toller and I'm the elected Warden of MRC Pontiac. Good morning, President Velshi and other Commission Members.

I would have preferred to be with you in Pembroke. I'm speaking to you from the unsurrendered, unceded territory of the Cree and Dakota in Regina, Saskatchewan.

Yesterday was a powerful delivery from the five Algonquin First Nations. Their message was loud and clear, they have not been consulted adequately or at all, and do not consent to the construction of a giant radioactive waste mound beside the Kichi Sibi, in their unceded, unsurrendered territory.

I believe Mr. Boyle this morning said that, in some cases, these were only words.

These are our first people, they are the

keepers of the earth, and we need especially to listen to them.

So I'll start my presentation.

As the Warden, I represent Pontiac County with its 18 municipalities and a population of 14,000 residents. We're the first downstream county on the Quebec side. The MRC Pontiac is a large agricultural and forested region in southwestern Quebec in the heart of the province's deciduous and mixed forests.

The Kichi Sibi (Ottawa River) and its tributaries form vital, natural, cultural and recreational aspects of our communities. Also, it is a source of drinking water for many Pontiac communities.

We are unilaterally against the near-surface disposal facility proposed by CNL Chalk River.

On December 15th, 2021 our Mayor has unanimously passed the following resolution: "Considering Motion 161-2021 adopted by the Council of the Municipality of Sheenboro, directly across from the site, considering the importance of the issue of the Canadian Nuclear Laboratories near-surface nuclear disposal facility..."

There are some words missing, unfortunately, on this slide so I'm going to read our resolution.

It was moved by Regional Councillor and

Pro-Warden, Ms. Sandra Armstrong, and resolved, that the Council of the MRC urge the federal government to move the proposed near-surface nuclear disposal facility to a site well away from the Ottawa River, and to have the Director General send an accompanying letter addressed the federal Minister of Natural Resources providing a summary of the rationale for requesting this action by the federal government.

This resolution states that the NSDF is located too close to the Kichi Sibi (Ottawa River). The nature of this site, with creeks flowing into the river and the region's susceptibility to possible earthquakes, tornadoes, and now heavy rains due to climate change, to say nothing of the 2019 flood, render the site and the mount unacceptable to us.

Furthermore, residents and officials are concerned about the long-living radionuclides and hazardous materials to be stored in the mound, if they were to leach in the river it will impact the health of our communities.

Lack of consultation. CNL failed to consult the Mayors and Warden of Pontiac County on the NSDF and whether we agreed on the concept and the location, near the river, at the beginning of the process.

CNL visited several communities and shared information about it. By then, it was the facility being

put forward and under consideration today.

Despite the nature, building near a river, and magnitude, approximately 1 million tonnes of waste, of this project, along with a new type of disposal facility proposed for the Ottawa River, we were not consulted.

Why should a site on the Ottawa River become Canada's nuclear waste dumping ground being transported from other sites across Canada?

Furthermore, CNL unilaterally made this decision with no engagement and consultation with Indigenous communities, local governments and citizens. There was no consultation with my predecessor, Raymond Desrochers, the Mayors of the Pontiac, or our citizens on this matters.

Four of our municipalities and our entire MRC passed resolutions opposing the acceptance of other waste at Chalk River.

Health of Pontiac County Residents. The Pontiac County has the worst health in any of Quebec's counties, and there are 89 of them, where residents experience high rates of cancer, respiratory and heart disease and diabetes. A health organization, the SECO, confirmed this fact in writing to me about Pontiac County.

Residents' health is already compromised and the NSDF, a flawed nuclear waste disposal facility, to

be situated 1 kilometre from the river could further jeopardize the health of Pontiac residents.

The Kichi Sibi (Ottawa River) and its tributaries flow through our communities providing drinking water, groundwater for wells, recreation including swimming and tourism.

For the past five years letters to the editors in our local papers, Pontiac Equity and Pontiac Journal, have expressed their serious concerns and opposition.

At a public forum on April 26th residents acknowledged that CNL is an employer of some of our residents, but they're concerned that the NSDF is too close to the Ottawa River. I have a recording of it, it is one hour and 15 minutes, and I would like to submit it to the record later today.

Destination Pontiac. During the COVID pandemic new people or former residents moved to Pontiac County, we're actually having a population boom, for its unhurried lifestyle, beautiful scenery, and friendly communities. We launched our Destination Pontiac, which is a promotional campaign showing people why they should move to Pontiac County. Real estate sales are up 50 per cent.

Many of the photos in our campaign show the river. Having an NSDF upstream that takes in waste

from across the country and is located 1 kilometre from the river is a deterrent to attracting families to the Pontiac.

Events in the Ukraine and public knowledge about Chernobyl, Three Mile Island, and Fukushima nuclear disaster raised public concern about living near a site, especially a nuclear waste site that the public has opposed.

Consortium and Public Consultation. It's disillusioning that our federal government has cut the cheque and handed over the responsibilities for nuclear waste management to a consortium that makes decisions unfettered by the democratic input of citizens and their elected officials.

Furthermore, the lack of an independent agency to develop and oversee a strategy for Canada's nuclear waste that meets international standards is enabling this ill-conceived NSDF proposal to go forward for review by the CNSC.

Until that happens, I recommend that the Canadian Nuclear Safety Commission does not approve the NSDF. Our main concern is that NSDF will result in leaching into the Ottawa River. Documentation has proven that deep storage is preferable, because it can be better contained.

As an elected official, I ask you as a

regulatory body to listen and be accountable to the people living downstream, especially when our current level of health is so fragile. Many residents are concerned that the high rate of cancer in our region may be caused by the Ottawa River.

So I will give concluding comments, if I may.

The validity of the science of this disposal will only be determined many years down the road, when it will be too late to go back. In addition, the proponents have no way of validly predicting the severity and impact of extreme weather.

There is also the risk of human error. I would also like to state, who can judge whether opinions of science facts or residents' opinions or more correct? I am in the service of my residents, so I need to listen.

MRC Pontiac is not alone among municipalities in questioning this proposal. Multiple objections have been raised in the form of municipal resolutions for more than 140 municipalities. Many of the these depend on the river for their drinking water. Among the municipalities are Montreal, Laval and Gatineau.

I find it interesting that our neighbours on the other side of the river, in Deep River and Renfrew County are in complete support. We share the same river.

We also have employees of CNL and appreciate those jobs, but that does not impact our concerns or influence our feelings about this project.

As the Warden of MRC Pontiac, I feel it was important to inform myself of this proposed waste disposal and I did tour the site and attended an information meeting. Since that time I've been invited to countless dinners, social gatherings, golf tournaments. I felt it best to decline, as I could see a potential appearance of conflict of interest.

A meeting was held on April 26th, as I've spoken, and this record will be submitted. Great concern was expressed that evening about the transportation of waste from other regions and, if this proposal receives approval, that deep storage would be preferred.

Thank you.

THE PRESIDENT: Thank you very much, Ms. Toller, for your presentation.

I'll turn to Ms. Maharaj for questions please.

MEMBER MAHARAJ: Thank you, Madam Velshi, and thank you, Ms. Toller.

You know, I've listened to your presentation and one thing that stood out for me that's of concern, is the statement that you've made with respect to

the -- you've compared the results of nuclear incidents to the potential impacts of a disposal facility. And it concerns me that in a position of influence on your constituents that this representation is being made by you.

And so for the purpose of clarification and ensuring that that kind of conflation doesn't move forward, because it's apples and oranges, I'm going to ask Staff to please, if you could, help the intervenor understand the similarities or differences such as they may be between a Fukushima, a Chernobyl and the emplacement of low-level nuclear waste into a secure disposal facility.

MS. MURTHY: Kavita Murthy, for the record. Let us start with the near-surface disposal facility and what it is designed and intended to do.

The basic premise of a near-surface disposal facility is that it is a containment structure meant for low-level waste. The waste that is destined to go into the near-surface disposal facility is not meant -- the facility itself is designed so that any individual will not get a dose above -- a dose constraint of .3 millisieverts a year under normal evolution scenarios, which is basically a normal level of deterioration of the containment system.

And under an extreme scenario when if there is someone who purposefully or inadvertently

causes -- builds a house or digs a well and lives on it, will not get a dose of 1 millisievert per year. And that is a dose constraint.

So there's a dose constraint and there's a dose of 1 millisievert, which is for very unexpected and unusual scenarios.

So the accident scenarios that are looked for in a nuclear power plant such as -- and the accidents that are mentioned often with respect to nuclear power plants, are in a different realm altogether.

I don't want to give you specific numbers on it, I know there are people who are far better qualified than I at the CNSC, so I will ask Peter Elder to speak to the specifics related to nuclear power plant accidents.

MR. ELDER: Good morning everybody. So I'll try to keep this as high level as brief as possible.

But when you're looking at the risks from a nuclear power plant and certainly in accidents that apply similarly to Fukushima and to Chernobyl is you need two things. Was is the inventory of radioactive material in there? So there's active fusion -- fission going on in a reactor, so you're actually producing it during the accident, and certainly this was the case in Chernobyl.

And then there is what is the driving force to get the material out of the facility into the

environment? So in both of Chernobyl and in Fukushima you had, because of the heat generated by the radioactivity, you had subsequent explosions, a hydrogen explosion in Fukushima, or you had a steam explosion in Chernobyl and a fire in Chernobyl that actually distributed the material fairly widely in this one.

In terms of the NSDF, there is no ongoing production of radioactivity in the mound, so the mound is going -- everything is going down. And there is no driving force, there's no explosion or anything that would actually put this into the environment in a very quick manner.

So it's a completely different thing. It's certainly in the inventories -- I'm talking about the inventories are very different and we're talking orders and orders of magnitude different than what you get there.

So the modelling that we do and we've done on this one actually do look at what could happen if there was a failure of the protection systems. We do this for any facility.

But the modelling we've done for NSDF are showing what would happen, and these are the results that have been presented by CNL. They're required to do this modelling to see what would happen if there's failure of these systems.

MEMBER MAHARAJ: Thank you, Mr. Elder.

That's very helpful.

So I hope, Ms. Toller, that you are beginning to get a better understanding that there is a world of difference, and conflating those two incidents is just not -- it's not productive.

I did have one follow-up question. Ms. Murthy, you mentioned the potential dose --

WARDEN TOLLER: Excuse me, I have my hand up. I wanted to ask Mr. Elder a question.

THE PRESIDENT: Okay. Please proceed, Ms. Toller.

WARDEN TOLLER: Thank you. Mr. Elder, thank you very much for that explanation.

I think the question needs to be asked, first of all, why do we need to be reassured? Why do we need these explanations?

These comments that seem to have concerned you this morning have come from my residents, not from me. I'm representing them.

And at the end of the day we are offering solutions, which is to move this well away from the current proposed site of 1 kilometre from the river, or even deep storage, which has been proven to be far more effective and safe.

THE PRESIDENT: Ms. Toller, I --

WARDEN TOLLER: Just a moment, the question, most important part. Mr. Elder, if you look back to the history of this particular site, was there not a time where precautions weren't being taken and there was the dumping of some radioactivity material into the Ottawa River?

MR. ELDER: So I can answer this. Peter Elder, for the record. I'm the Vice-President of Technical Support and Chief Science Officer.

This has been discussed earlier in these hearings. I think CNL was very clear around the history of this one, around that the site is contaminated. And they presented their view on how this proposal would actually start to address some of those past issues.

So this is a completely different -- and it's the first time we're going back in and talking about a design-engineered disposal facility. And I won't go back over all the discussion we've had early, and the Commission has heard, around various options in that one.

But I just say absolutely there is and has been radioactivity into the Ottawa River. If you want to know and if you're interested on the health impacts of that one, we have specialists who actually study this in conjunction with Health Canada. Thank you.

WARDEN TOLLER: So I'll just finish by

saying that it's the knowledge that that occurred. Finally, people of the Pontiac have an opportunity to speak up about something that happened a long time ago and we are possibly still living with the impact of that.

Thank you.

THE PRESIDENT: Thank you. Ms. Maharaj, back to you please. No?

Okay. Dr. Lacroix.

MEMBER LACROIX: Thank you very much, Warden Toller, for your presentation.

You briefly mentioned it at the end of your presentation, the fact that people from Deep River and the Renfrew County are basically in full support of the project, while the people from the Pontiac are mostly opposed.

I have my idea why is there such a disparity between the people on both sides of the river. If we put aside the job creation, why this disparity?

WARDEN TOLLER: Are you asking me why the disparity?

THE PRESIDENT: Yes. The question was posed to you, Ms. Toller.

WARDEN TOLLER: Okay, great. Thank you very much for that question.

I'm amazed because on many other issues

we're in agreement and we work together. For example, the flood of 2019. And I'm not sure if anyone has been recording cancer levels or the number of cancer incidents on the Ontario side. But I can tell you that we have a major problem in the Pontiac.

And there has been some research done by some doctors, it hasn't been published, but until we are reassured that this facility is going to be moved farther back, we will continue to hold our health, our future health, as the most important guiding force.

And I don't want to cast any kinds of aspersions, but I did say that I've been invited to many events where I guess it would be no charge on my behalf, and I have refused, or I have made good reasons to not attend.

I know that the politicians on the Ontario side are very actively involved all the time. I also know that donations have been received. There was one donation given to Pontiac, to the Municipality of Sheenboro, of $500,000 for apparently emergencies because they're right across the river. I was even concerned about the receipt of that.

I think that there has been incredible marketing and influence to communities for support. And MRC Pontiac, I am their voice, I am their leader. Other

than the one informational meeting that I attended just to obtain as much information as I could, I did not think it was appropriate for me to accept any of those other invitations.

So I guess you could simply say that the Ontario side, they're closer to the site, perhaps they have more people employed, and they're enjoying a different relationship. I have chosen to keep some distance so that I can remain objective and be listening only to the people that I represent.

MEMBER LACROIX: Okay. And the second part of my question, you already touched it slightly. It's the health of the people in the MRC Pontiac. And my question is redirected to Staff. Are you aware of a similar study on the Ontario side, and can we compare both sides of the river?

MS. MURTHY: Kavita Murthy, for the record. I was trying to get your attention, because we have someone on standby ready to speak to that.

So Addie Ivanova, please go ahead.

MS. IVANOVA: Hello, this is Addie Ivanova, for the record. So I can talk a little bit as to the health of Pontiac County residents.

Staff have reviewed the results of the available local public health unit, health reports and

data, to provide further information that the health of people in and around CNL facilities is not impacted by their operation.

So mortality causes among the population of Pontiac County are similar to the rest of Canada where heart disease and cancers are the two leading causes of death.

So according to the Centre intégré de santé et des services sociaux de l'Outaouais health portrait from 2000 to 2004 mortality rates for circulatory diseases are higher in Pontiac and for the Outaouais, compared to Quebec's average. And mortality rates for respiratory diseases and cancer are higher, but not significantly in Pontiac, and significantly in the Outaouais compared to Quebec.

However, cancer and disease risk factors such as smoking, physical inactivity and excess body weight are also higher. So in fact the average Canadian's exposure to natural background radiation is about 1.8 mSv each year. And similarly, exposures to the public living near the proposed NSDF are expected to be less than 0.01 millisieverts per year, which is hundreds of times below levels where we would expect adverse health effects.

So although cancers can be associated with radiation exposure at high doses, which we know from large

robust studies like INWORKS and atomic bomb survivors of the doses experienced by the community are hundreds of times lower.

Thank you.

MEMBER LACROIX: Thank you.

MR. McBREARTY: Commissioner Lacroix, Mr. McBrearty, for the record.

I would like to have Mr. Pat Quinn address a couple of the comments because I think it is important to get a reflection from CNL on the outreach efforts that have gone on not only on the Renfrew Count side of the river, but also on the Pontiac side of the river.

So, Mr. Quinn, over to you, sir.

MR. QUINN: Thank you very much. Commissioners and President Velshi, Pat Quinn, for the record.

As Director of Corporate Communication I actually was poised to hit my button here so that I would be able to address some of the comments that have been made.

I'd like to actually go back a little bit and talk about an earlier intervention that talked about the tone of our engagements.

I personally have attended many, not all, of CNL's efforts around providing communications on the

NSDF project. And I have to say that it has been nothing but respectful and we have never been dismissive. I take offence at that.

We have put on the opportunities where members of the public can come to our subject matter experts, ask them questions, share their concerns, and I believe in fact these have influenced the environmental impact statement. This is a fact, and we've been talking about those all week here.

Furthermore, the dinner invitation that I think we're speaking of is actually one that was provided to invite the Warden to participate in an Industry Day that was being hosted at Chalk River just yesterday, and the dinner was on Wednesday evening. This is actually hosted by CNL and the Organization of Canadian Nuclear Industries.

This is an opportunity -- and this is part of our public information program -- this is an opportunity created so that we bring industry representatives from across the province to Chalk River, and we encourage our local municipalities, MRC Pontiac and Renfrew County, to engage with these suppliers. This is an opportunity for them to sell their municipalities. And in fact, MRC Pontiac had a booth at our session yesterday. So they recognize that, and I don't want it to be considered anything other than that. This is an opportunity. If an

elected official chooses not to accept that invitation, that is completely fine with CNL.

Furthermore, with respect to the golf tournaments, I don't even know what that is. CNL does not host a golf tournament, unless I've never been invited to it.

--- Laughter / Rirea

So, you know, the reality of it is that's not the way this organization operates.

But throughout the campaign, since 2016 we have gone - going to M.P. Chatel's presentation yesterday, we went from one end of her riding to the other, from Rapides-des-Joachims to Gatineau, and we talked to people there. And sometimes we were not met with respect and our comments were dismissed, but that did not deter us. And so we continue to be open and transparent in our communications on our project, on our operations, and how we work within our communities. And so I'm proud of our track record and stand by it. Thank you.

THE PRESIDENT: Mr. Quinn -- Dr. Lacroix, did you have a follow-up? No?

Mr. Quinn, one of the concerns the Intervenor raised around the lack of consultation was early on in the project, when the site or the technologies were being assessed, what kind of engagement did you have with

Pontiac County at that phase?

MR. QUINN: Pat Quinn, for the record.

With respect to engagement with Pontiac and elected officials and citizens of the communities there, we took several approaches, as I've described over the course of the week. We held public information sessions in the communities.

THE PRESIDENT: So this would have been early on, when you were ...

MR. QUINN: In 2016.

THE PRESIDENT: Perfect.

MR. QUINN: The launch of the project description. As a matter of fact, Sheenboro was one of the first communities that we went to because it's one of the close neighbours, but we worked within Pontiac and Renfrew County within 50 kilometres of our site, which is our normal operating parameters. So that's where we went first.

We also provided other information sessions in community there. We provided delegations to councils. We actually had delegations to MRC Pontiac Council; they should check their records. Then we also hosted - as Warden Toller advised, we hosted the Warden to site to walk around. We've also had representatives from MRC mayors and elected officials from the Council to walk

the site, come to information sessions -- not solely on NSDF, about the entire operations. Our desire is to help all communities around us to benefit from the operations of Chalk River, but also to understand the operations and know that they could ask questions at any time of us.

Furthermore, MRC Pontiac is represented, and I have always been most appreciative of Mayor Jim Gibson's -- he's the former mayor now -- participation in our Environmental Stewardship Council. Mayor Gibson would attend, ask questions of our Council representatives, and that included many of the 17 ESC meetings that included updates on NSDF. Mayor Gibson told me personally that he was returning that information to the Council so that they were aware of our operations.

Furthermore, there is a staff representative from the MRC that sits on the Council as well and has participated on site visits, site tours to Port Hope, Port Granby. The main objective of all our activities has been to pull the curtain back, to help people see what the reality of the operation is, ask us questions, and have the opportunity to maybe change the EIS or how we look at things. This has been, quite frankly, that simple.

THE PRESIDENT: Thank you for that. And Ms. Toller, before I turn it over to you, maybe I'll --

what Ms. Maharaj was raising.

You hold a position of great influence. You have shared with us the concerns you're hearing from your constituents, and I'm not saying I necessarily understand your reluctance to interact directly with CNL, but you can help address some of those concerns in the position that you're in.

Have you reached out to CNSC staff, who can probably give you, I hope you accept, more objective evidence to help address the concerns your constituents are raising? Let me ask you first, and then if necessary I'll turn to staff. Over to you, please.

WARDEN TOLLER: Not recently, but initially I did a lot of fact-finding. And the reason my hand was up -- I'd like to address a few things that have been said.

It's completely unfair to say that high rates of cancer in the Pontiac are related to smoking and lifestyle. I can give you many examples of people who have never smoked a cigarette in their life; they are vegetarians; they exercise all the time; and they've come down with mysterious cancers.

Secondly, Mr. Quinn. Mr. Quinn, I've been invited to several dinners over the years, not just the one on Wednesday night, which I couldn't have attended anyways

because I'm here in Saskatchewan. And yes, of course our staff of the MRC participate in the professional days, which are about offering jobs. We need as many jobs as possible in the Pontiac. We appreciate the fact that you provide jobs to over 300 people in the Pontiac, but just because we attend that doesn't show any compliance or support for this project.

And I would also say I did not use the word "dismiss"; I have not been dismissive or rude. I have always tried to behave in a most professional manner possible, but I do think that it comes to a point, when you can see that you're not being listened to and there's no changes planned and the original project keeps steaming forward, it would be very unwise for me to be attending social gatherings, which are dinners, lunches, *et cetera*. If I need information, I know where to get it. I can go directly to the appropriate staff.

But there hasn't been a need for any new information because nothing has changed. I became the Warden in 2017 and the site has not moved.

THE PRESIDENT: Well, thank you very much for your intervention, Ms. Toller, and for your presentation today. Thank you.

We'll move to our next presentation, by Nuclear Waste Watch, by Mr. Ish Theilheimer, as outlined in

CMD22-H7.33. Mr. Theilheimer, please proceed.

***CMD 22-H7.33**

Oral Presentation by Ish Theilheimer

MR. THEILHEIMER: Thank you, Madam Velshi. I was hoping I was going to get to leave early, but ...

--- Laughter / Rires

Thanks anyhow.

My name is Ish Theilheimer. I live in Golden Lake. I'm involved with many community-based organizations in Renfrew County, including Stone Fence Theatre, Ottawa Valley Cycling and Active Transportation Alliance, Renfrew County food banks, and Affordable Housing Alliance, and more. I'm a writer and I've written about the Ottawa Valley, its people, and its communities for more than 40 years.

In May, 2017 I wrote to your panel. I said, "I share the concerns of the Old Fort William Cottagers' Association," which was one of the first groups to get actively involved in this issue,

> "...about the proposed NSDF. I am concerned, among other things, with the import of hazardous waste for disposal there; the possibility of

> radioactive wastes like plutonium with nearly infinite half-lives being put there; the proximity to the Ottawa River, and the likelihood the containment systems will degrade. I believe that if a long-term radioactive waste disposal is the objective, that a site is needed that is not in such a risky location, and that a more robust containment system is needed. I am not convinced by CNL's proposal and its promotional literature which downplays the risks."

My concerns have only mounted since then. In April this year, I wrote an intervention to your panel saying that: "Now, it appears, the project won't even save the money that its supporters say it will. " It appears that a study last year by the Nuclear Waste Management Organization shows that "over 90 percent of Canada's current low-level waste inventory could be unsuitable for disposal in the engineered containment mound (ECM)," because it may be too hot for the mound.

Also in 2021, another study by the same organization showed that the range of costs of an ECM is

about the same as other containment measures, about $5,000 per cubic metre of waste. This translates to $5 billion for a facility with 1,000,000 cubic metre capacity, which is the size of the proposed NSDF. So, although the ECM is the cheapest option shown in the study, it's really not all that cheap. This study suggests that the current $750,000,000 total lifecycle cost estimate for the NSDF -- *Safety Case*, Page 280 -- is a fivefold underestimate.

Approving the project with no independent review of the cost estimate is like buying a house without a home inspection. It would be simply irresponsible. I haven't had time, I admit, to watch the entire week's discussion, but I've followed them and I've gained some impressions from talking to folks and from my reading. Some have characterized - and I believe the previous Intervenor is a good example of that -- some have characterized the process as "decide, announce, defend".

There wasn't an initial conceptual and planning stage as recommended in international radiation safety standards. Canada's modernized environmental assessment process also emphasizes the importance of early planning. First Nations and members of the public were not consulted about options for facility types and locations before decisions were made. It seems likely that with a broader-sized survey - and we've heard several Intervenors

say this morning - better locations could be found nearby that are further from the Ottawa River, such as on the adjacent Department of National Defence property.

Details of the project remain in flux, with significant changes since I had a formal opportunity for comment in 2017. These include the pipeline to discharge treated leachate directly into Perch Lake, the proposed "weather cover structure", and the decision not to use intermodal shipping containers as packages to be put in the mound. I am concerned about the weather cover structure proposed over the ECM. Anyone who remembers Montreal's Olympic Stadium knows these things don't always last. No roof does.

There is real uncertainty as to whether the NSDF would represent an improvement over the status quo and whether it is urgent to proceed at this time. Characterization of wastes in the historic waste management areas is not complete. Environmental remediation plans for these areas are not in place, and decommissioning plans for contaminated buildings have not been finalized. There are unexamined environmental risks of exposing the contents of these historic waste areas and contaminated buildings to the elements.

No one seems to know the total quantities of radioactivity in the federal low-level radioactive

waste. How much of the inventory could the NSDF safely accommodate? Some have suggested the amount is far less than the historic waste areas at Chalk River. Where will the rest of the waste go? Will we have to go through this whole process again in a few years?

As several Intervenors, including Sophie Chatel, the Member of Parliament for Pontiac, have stated, there has not been an independent technical assessment of the current proposal, which should include an adequate comparison to costs of other disposal options. I understand that there has been discussion this week of bringing in an International Atomic Energy Agency ARTEMIS peer review team to review the NSDF and other ways to manage the federal government's radioactive waste.

Great concern has been expressed about the import of waste from across Canada to Chalk River for disposal in the NSDF, and how this project may therefore be worsening the state of our local environment. It isn't clear what are the origins of the waste that would and wouldn't be stored in the NSDF. Up to 80 percent of the initial radioactivity could be commercial cobalt-60 disused sources, most of which would be imported from other countries, we have learned this week.

The environmental assessment has not taken into account impacts of clearcutting the existing forest

where the NSDF would be located, including possible erosion of the hillside and deposition of large quantities of sediment in Perch Lake, with resulting loss of fish habitat. It makes you wonder what other impacts have not been studied.

One Intervenor mentioned -- this is Christian Renault, who was hired by CNL to survey birds at the site -- mentioned that there may be existing radioactive contamination in the project footprint. We heard something about that this morning.

I have other serious concerns and questions. Worker radiation exposures may be relatively high and may not have been thoroughly described. Public radiation exposures in the event of a "worst case accident" have also not been well described.

I'm concerned, if the base liner links during or after closure and someone has to remove 10 or 18 metres of waste which has been compacted, to access and repair that leak, who pays for that? I guess, from what we've heard this morning, AECL or the taxpayer pays. If the private contractors who currently operate the Chalk River site make a mistake and leave the area after the contract ends, will the taxpayers be on the hook for that, too? It sounds that way.

I am particularly concerned about the

short timeline for monitoring and caring for the mound and its discharges. Waste in the mound would be exposed to rain and snow for a 50-year dumping period, not long in the life of decaying nuclear waste. Water would run through the waste and absorb some of the soluble radioactive contaminates. It would become leachate. The leachate would accumulate on the bottom liner and would be pumped uphill to a waste treatment plant. Some of the contaminants in the leachate would be filtered out or removed by chemical precipitation in the treatment plant. Other contaminants, particularly tritium, cannot be removed.

I am concerned that the NSDF would desecrate an area sacred to the Algonquin peoples, including Oiseau Rock and Pointe au baptême. First Nations have not given their consent, as we've heard this morning, for this project.

For all these reasons, my concerns have only grown since 2017, and I ask you not to approve the project.

THE PRESIDENT: Thank you very much, Mr. Theilheimer, and I'll turn to Ms. Maharaj to see if she has any questions or comments.

MEMBER MAHARAJ: Thank you, Madam Velshi and thank you Mr. Theilheimer, for your intervention today.

You did raise a question that I hadn't actually -- I don't think I have an answer for in my head, and so I'd like to ask CNL to comment on how the heat generated by the emplaced low-level waste is accounted for in the design.

MR. BOYLE: So Phil Boyle, for the record. If you need any more details, I'm sure Ms. Vickerd gave it to you, but the short answer is that because of the low levels of radioactivity in this low-level waste, there is essentially no heat generation. It is not a concern.

MEMBER MAHARAJ: Thank you.

THE PRESIDENT: And then maybe a follow-up to that, then, is this NWMO report that the Intervenor makes reference to, of August, 2021, which, according to the intervention says: "Over 90 percent of Canada's current low-level waste inventory could be unsuitable for disposal in an ECM" because of -- for whatever reason. How does that apply to the NSDF?

MS. VICKERD: Meggan Vickerd, for the record.

So I think an important clarification in the NWMO's Integrated Waste Strategy Review -- their scope was to do a review of waste for which no strategy currently exists.

As already discussed, CNL had created an

integrated waste strategy. We had identified a strategy of a disposal solution for our low-level waste with NSDF, and we already had a strategy for the remainder of our low-level waste with Port Hope and Port Granby. So in essence, CNL's low-level waste was excluded from that review. So that statement is not necessarily relevant to the project.

THE PRESIDENT: Thank you very much.

And Mr. Theilheimer, as you've -- I know you said you haven't been closely following the proceedings this week, but almost all the issues that you have raised today have been discussed over the last four days and a bit. So thank you again for your intervention, and if you've got any final comments, I'll turn it over to you.

MR. THEILHEIMER: No, thank you very much.

THE PRESIDENT: Thank you.

Our next presentation is by the City of Pembroke, as outlined in CMD22-H7.40, and we've got Mayor Mike LeMay with us to make the presentation. Over to you, Mayor.

***CMD 22-H7.40**

Oral Presentation by the City of Pembroke

MAYOR LeMAY: Thank you. Good morning, Members of the Secretariat.

The Deputy Mayor -- the letter you received from the City - the Deputy Mayor Ron Gervais was unable to attend this morning, I found out just a while ago, but he's been a member representing the City on the Environmental Stewardship Council during my term of office, and I've been Mayor now for eight years. But I know the City has been involved on the Environmental Stewardship Council for over 15 years. And he would update us constantly, so what I'd like to do this morning is just read into the record the letter that has been sent.

> "Dear Secretariat,
>
> The City of Pembroke fully supports the Near Surface Disposal Facility Project.
>
> In my capacity as the Deputy Mayor for the City of Pembroke (a position I have held since 2010) and as the appointed member to the Canadian Nuclear Laboratories Environmental Stewardship Council, I wish to

provide this letter in support of Canadian Nuclear Laboratories' application to amend its Chalk River Laboratories site licence to authorize the construction of an NSDF. Furthermore, I wish to appear before the Commission during the Part Two Hearing as a representative of the City.

The City of Pembroke, known as the 'heart of the Ottawa Valley', is a unique municipality that has a legacy of being a dominant centre of commerce in the region and a regional hub for goods and services. The City of Pembroke is located on the Ottawa River approximately 47 kilometres downstream and downwind from CNL and the proposed NSDF. The City of Pembroke is home to a substantial number of CNL personnel, and I have great confidence in their expertise to construct and operate such a facility.

I have received many updates and have

had the opportunity to discuss this project through my participation on the ESC and receiving CNL presentations to City Council. I am confident that the proposed facility will address legacy waste, and enhance protection of the environment, including the Ottawa River, Pembroke's source of drinking water. The NSDF is a responsible permanent solution to addressing environmental legacies at Canadian Nuclear Laboratories Chalk River site. It is our understanding that most materials destined for the NSDF are already located on the CNL site. Canadian Nuclear Laboratories and the NSDF project will further protect the environment, noting as well it will positively impact economically the surrounding area, including the City of Pembroke, directly and indirectly. In conclusion, the City of Pembroke is in full support of the NSDF project as proposed, and I am

confident that the majority of the citizens of the City of Pembroke have little safety concerns arising from the operation of CNL and are most certainly in favour of CNL's application.

Thank you for providing this opportunity to intervene in this matter."

Thank you.

THE PRESIDENT: Thank you very much, Mayor LeMay.

Ms. Maharaj, any questions?

MEMBER MAHARAJ: Thank you, Madam Velshi, and thank you for your presentation, but I don't have any questions.

THE PRESIDENT: Dr. Lacroix?

MEMBER LACROIX: Thank you very much, Mayor LeMay. I want to thank you for the welcome that we received in Pembroke this week. I have no questions.

MAYOR LeMAY: Thank you.

THE PRESIDENT: And thank you for appearing in front of us today. It is very much appreciated, Mayor. Thank you.

MAYOR LeMAY: Thank you very much.

THE PRESIDENT: We will move to our next presentation, which is by Nuclear Waste Watch, as outlined in CMDs 22-H7.103 and 22-H7.103A. We have Mr. John Jackson making the presentation remotely.

Mr. Jackson, over to you, please.

--- Pause

THE PRESIDENT: Mr. Jackson, you are on mute, I think.

***CMD 22-H7.103/22-H7.103A**

Oral presentation by Nuclear Waste Watch

MR. JACKSON: Is this working now?

THE PRESIDENT: Much better, thank you.

MR. JACKSON: Thank you so much. I was starting to hear an echo and I thought, aha, something is wrong. Thank you very much. It is the first time I have had headsets for these.

Nuclear Waste Watch is a network of citizens groups across the country working on nuclear issues and one of the issues we wanted to look at was community awareness and acceptance of the facility.

Could we have the next slide, please?

To help us in that assessment we applied for and got intervenor funding to hire an outside expert in

terms of processes, facility processes, decision-making processes, Christine Peringer. She is not a person who has been involved in nuclear issues, an outside observer in that sense, and what she did for us is she did a few things.

This was back in 2017 on the original EIS. There was a nine-question multiple choice survey that was conducted in October and November of 2017. There were two community roundtables, one held in Pembroke and one in Deep River in November, November 9, 2017, as well as telephone informant interviews.

This was not a technical statistical study. The resources that we had available to do it, that she had available to do it were quite small in terms of the extent to which you could carry out surveys, meetings, interviews, et cetera, but she has brought to us her perspectives, though, from those observations of being in those facilities.

So why don't we go to the next slide.

I have given you the -- when I sent in the submission, I included her full report. Anything that you see here in quotation marks are directly out of her report, so I am presenting her views here, not reviews that we created.

So in terms of community awareness, which

we see is a critical component of being involved, is that she concluded that "The level of public awareness of the NSDF appears to be low or moderate." And remember that her studies were done about five years ago, in 2017, around the first EIS.

The reasons that she gave in terms of that, again in quotation marks, is that "There doesn't seem to be much public discussion happening at that stage." "The topic is complex and people are busy", and therefore it's hard for them to really get immersed in it. "A lot of the information is not available", and again that affecting their availability or it can be hard to get. And also, that "The role of the public is unclear."

Can we go to the next slide, please?

Our other major concern was community acceptance. So you can have -- awareness is absolutely essential. Acceptance though is the other component, especially in modern environmental assessment processes and in modern decision-making processes.

Her conclusion in terms of community acceptance was -- it will be no surprise to you after sitting here through this week and listening to the input that you received, but her quote: "There appears to be a significant difference of opinion within the community as to support for the proposal."

And some of the things -- and again, all these are quotation marks directly from her report: "The source of the waste matters to people." "No relationship appears to exist" -- in her findings -- "between opposition to nuclear power and opposition to this proposal."

"Current nuclear industry employees generally support the proposal and see movement on this as essential for the industry." But she also said: "Past nuclear employees may support or oppose the proposal", which she found quite interesting.

The next slide, please.

Something that she pointed out that alarmed her was the sharp difference in the level of trust among people within the community and that those in support have "trust in the consultation, approval and oversight process".

There were three prime concerns of those opposed to the project, which I'm sure you have heard of during this week quite a bit and repeated a fair bit this morning, concern about a "proponent that is a multinational consortium of commercial interests"; I'm sorry to say this, but "distrust in CNSC as the regulator"; and concern about "capacity of government oversight now and in the future". Those things she saw as showing, you know, a sharp difference in trust, which she found to be alarming.

We applied for funding to update this work when the new EIS came around and the new intervenor funding came around but did not receive funding to update the work and to bring it up to the current.

Can we go to the conclusions in the recommendation section? Thank you.

In our minds, community awareness and acceptance are core principles in modern environmental assessment processes and in modern decision-making. It has increasingly become seen that if we want to get the best solutions to the problems in our communities, we have to be supplying the needs of not simply the proponent but also of the community and of the environment and taking all of those into account. We get better decisions as a result, decisions that may well be different from the original suggestions and proposals but are better because we have taken into account many more people and types of needs.

She concluded that as of 2017, community awareness and acceptance were not adequate and were not at an acceptable level. And certainly, I think from what you have been hearing this week you have to see also that that really hasn't improved. Maybe awareness and involvement may have improved as people have gotten more into the issue, but certainly the acceptance has not improved as they have gotten into these later stages.

Go to the next slide, to my last slide, please.

We reviewed -- and this wasn't Ms. Peringer -- it's I reviewed the EIS section in the recent proposed EIS on public and stakeholder engagement, quite an extensive session, but what is important about it, it does not explore the questions of community awareness or acceptance.

There are no sort of surveys of, you know, what is the level of community awareness. There are no surveys of what is the level of acceptance. It's full of, you know, listings and responses, attendance, and so on, through like mail drops, meetings, visits to the website, social media impressions, et cetera, that have occurred. But those, having them occur does not necessarily mean that the level of public awareness is high, it doesn't mean that it is at a satisfactory level. And likewise, having those events, carrying out those events and people being part of them does not mean acceptance.

Therefore, we feel this is a major lack and what has happened here is community awareness and acceptance not really being assessed by the proponent and by the CNSC. But we ask you as the Panel to recognize that that is important and therefore what you have been listening to this week is really reflecting a serious

problem here.

The best solutions come out of collaborative processes, where people are working together to find a solution to a shared problem. Because everybody who has spoken to you this week, including the proponent, is addressing a shared problem, but it hasn't been a collaborative process to coming to a solution to it.

There is a recent report that just came out from the International Joint Commission which looks at Great Lakes issues and international issues across the whole Canada-U.S. border. Well, I was part of a study that was just released by the IJC on decommissioning of nuclear power plants and some of the staff from CNSC and from CNL, you know, had invitations to public meetings that we held on those, and so on. But a couple of things that really came out in that report in our recommendations that were released in April of this year was the need for collaborative approaches, the need to develop trust in the community was really emphasized in that report, and the need to find ways to really sit down together to make the decisions jointly through things like Community Advisory Boards.

And the group that pulled together this report before it went to the IJC Commissioners themselves was a wide range of stakeholders. It wasn't -- it was a

mix of industry, a mix of government people, a mix of environmental activists, a mix of the whole range of sectors who came unanimously to agreement on the importance of building trust, the importance of working collaboratively.

So thank you for this opportunity to speak.

THE PRESIDENT: Thank you, Mr. Jackson.

I will turn to Ms. Maharaj first for questions, please.

MEMBER MAHARAJ: Thank you, Madam Velshi, and thank you, Mr. Jackson.

I found the information that you provided very interesting, in particular because it was neutral. It was coming from a neutral place and I think that has great value.

My question to staff is, in this intervention there was participant funding granted for the first round of this study and I'm curious to understand why the second round, a later date, funding was denied, because I do think there could have been some interesting information gathered here.

MS. MURTHY: Kavita Murthy, for the record.

Yes, we were having the same

conversations.

Let me pass this to Adam Levine, who can perhaps address this question.

MR. LEVINE: Thank you. Good morning.

My name is Adam Levine, for the record.

And so yes, Mr. Jackson, through his organization Nuclear Waste Watch, did apply for funding through the PFP twice. We had an initial opportunity for the review of the Draft Environmental Impact Statement, which he was awarded funding for, as well as the second opportunity in 2019 that covered review of the Final Environmental Impact Statement, as well as our CMD EA report and participating in these hearings.

I believe what Mr. Jackson is referring to is as part of his proposal he did ask for some additional funding with regards to some studies and public opinion research and engagement with the stakeholders at a broad level. However, our Independent Funding Review Committee determined that that was not in scope of the funding opportunity as it was focused on those elements that I mentioned earlier and awarded funding accordingly to review and provide information to the Commission on those documents. Thank you.

MEMBER MAHARAJ: Hmmm, okay.

THE PRESIDENT: That is an independent

body that makes that decision.

MEMBER MAHARAJ: That is, right.

THE PRESIDENT: Dr. Lacroix...?

MEMBER LACROIX: Thank you, Mr. Jackson, for the presentation.

I have no questions.

THE PRESIDENT: I will turn to CNL, because you shared with us more recent polling results and if you can share with us what the trending has been that you have seen from 2017 to now around both awareness and acceptance of the project, I think that would be insightful.

MR. McBREARTY: Thank you, President Velshi, for that question.

Mr. McBrearty, for the record.

As I did say in my opening statement, we have recently conducted a survey to show, kind of using a benchmark in 2018 and now one most recently in 2022, what the trend is.

So I am going to ask Mr. Pat Quinn to take this question because I think he can give us some very specific details on what those trends are at this point in time. Thanks.

MR. QUINN: Good morning. Pat Quinn, for the record. Thank you for the question and thank you very

much for the presentation, too.

CNL did in fact conduct two public attitude surveys. The objective of the survey was to kind of assess our effectiveness on how we are communicating about ourselves but also about our specific projects, the Near Surface Disposal Facility.

The first survey was conducted in 2018 and then we did a follow-up survey actually most recently in the spring of 2022 or I guess late winter. So the survey was conducted by Nanos and this was an independent organization of CNL and the survey results are posted on our website for the public to explore themselves. There you can take a look at the methodology and that type of thing if you are so interested.

I think the key findings of the studies, though, are really interesting in the sense that they touch upon confidence in the Chalk River staff, awareness of CNL, awareness of our projects, and basically, to sum it up, is that the events and occasions that were listed on one of the slides from the intervenor, all our efforts, social media, public engagement, talking to the public actually paid off, frankly. It helped us to really get our message out and we saw an upswing in results of people being aware of CNL Chalk River and aware of the Near Surface Disposal Facility.

So I guess data is always helpful here and if we were to -- like awareness of CNL in 2018, 84 percent of the Pembroke residents were likely to have heard of CNL and then it went up to 92 percent. And a lot of us live in the community. Pontiac actually increased to 80 percent from a lower number of 73. I'm sorry, Pontiac went to 91 versus the 73 percent in 2018. So we knew that we were getting out and reaching the community.

Media was important for that as well, and by this I mean news media. We understood that people were following certain stories and so we would, wherever possible, be part of that story, find a role or actually correct the record when we were able to do that. So that was also a helpful tool.

Going to the intervenor's talk of awareness and acceptance of the project, the activities that we undertook, all those engagement activities actually helped us to zero in on the concerns and that has been in our deck that we presented over -- and the project has been able to undertake that and tackle those concerns and address them.

So to sum up, we know that we have run a good engagement program. The survey results from 2018 gave us a good benchmark in areas where we could improve, and ultimately in 2022 they confirmed that we were heading in

the right direction in people's confidence in Chalk River staff to follow the regulatory processes and to construct and operate a facility like the Near Surface Disposal. People were becoming more aware of the organization and, again, as I mentioned, awareness of projects.

THE PRESIDENT: Thank you for that.

And to the recommendation by the intervenor of our exploring community awareness or acceptance, particularly of this project, is it your plan to continue doing these kinds of surveys on an ongoing basis to see how it is trending?

MR. QUINN: Most definitely.

Pat Quinn, for the record.

Most definitely. These surveys, checking in with the public in this very scientific fashion is critical to the success of our program. Thank you.

THE PRESIDENT: Thank you.

Mr. Jackson, again, thank you for your intervention. You have your hand up --

MR. JACKSON: Yes.

THE PRESIDENT: -- so I will turn it over to you for any comments.

MR. JACKSON: Okay, thank you.

I said in the original presentation that I was assuming awareness had increased since the first study

and it's confirmed here by what you said and I think it's confirmed by the big turnout at these hearings, both speaking and being in the audience and listening and making comments.

That doesn't mean that one can jump from that to make the conclusion that trust has increased. It doesn't mean that you can jump from that to say that acceptance of the proposal has increased, again which is reflected in the presentations that you have heard over the entire week.

And I think it is really important to recognize that something like, you know, 50 percent, 50:50 or whatever it may be, is not something that is considered community acceptance in a modern society. One generally is talking of numbers that have to be well past the three quarters mark in terms of even considering that this might be seen as moving towards community acceptance. But again, that is not an indication of community acceptance with what we have.

I think the other thing that was important about the work that our outside person was doing is that not only was she doing the sort of surveys through, you know, putting out telephone interviews or whatever, the community meetings that she held were really important because it gave her a chance to interact with the people to

understand why they were feeling the way they were.

The one community meeting we held was overwhelmingly people who supported the proposal and that was -- and she, you know, from that learned a lot about what was going on.

And the other community meeting was primarily people who were concerned and worried about the proposal.

But by her being able to interact with them, talk with them and explore it, it really helped her come to an understanding of why things were and are the way they are. And again, the conclusion that she came to and that we share strongly is we need collaborative decision-making processes and this has not been that.

Anyway, thank you and I appreciate the opportunity to be here.

THE PRESIDENT: Thank you again for your presentation and intervention.

With that, we will break for lunch and we will resume at 1:10 p.m., at which time we will go through questions that we have received from intervenors, those that the Commission would like to hear more about, as well as any other questions that we may have of CNL and staff.

So we will see you at 1:10 p.m.

Thank you.

--- Upon recessing at 12:11 p.m. /
Suspension à 12 h 11
--- Upon resuming at 1:10 p.m. /
Reprise à 13 h 10

THE PRESIDENT: Good afternoon, everyone.

We will now proceed to questions, written questions we have received from intervenors. These are intervenors who made oral presentations.

We have gone through the list of questions that have been submitted, we have shared them with CNSC staff as well as with CNL, and for those questions that the Commission would like to hear the responses to, I will pose those questions to you.

Those that we feel we already have enough information or don't think they are necessarily pertinent to the matters in front of us, we won't cover that, but I do strongly encourage both staff and CNL to follow up with the intervenors for the other questions, to address those with them as you deem appropriate.

So the first set of questions is from Kerrie Blaise from Canadian Environmental Law Association and the question is: Is the NSDF intended to be a solution for the Strontium-90 plume? If so, how so?

CNL...?

MS. VICKERD: Meggan Vickerd, for the record.

We will have Mr. George Dolinar respond to this question.

MR. DOLINAR: George Dolinar, for the record.

So we have -- it's more than one Strontium-90 plume, first. I think it was in the singular, but we have four Strontium-90 plumes on the Chalk River site which are significant enough to have treatment systems associated with them.

The way I will describe this is there are sort of three components that need to be considered. So for these plumes there are source areas which can be waste or liquid dispersals. There is sort of the transit area where the plume is making its way through the soil and to the area where it either emerges or, in this case, where we have put in treatment systems.

So I will start with the treatment systems. The treatment systems capture Strontium-90, concentrate it and capture it. So there are some wastes associated with the ongoing operation of these plume capture facilities.

There is a further subdivision. Two of

these treatment facilities are passive and two are operational. So the operational ones produce drummed waste. It's a cementitious waste product, strontium captures clinoptilolite, and the simple answer is that gets compared to the Waste Acceptance Criteria for NSDF and if it meets the Waste Acceptance Criteria it goes into NSDF. Otherwise, it would be stored presumably as another class of waste.

For the inground passive systems, at some point in the future we will look at recovering the clinoptilolite volume that is there sorbing the strontium plume as it encounters these passive systems. And the same sort of situation applies, we will compare the clinoptilolite with the sorb strontium to the Waste Acceptance Criteria and make a determination whether it goes into NSDF. So it is always compared against the Waste Acceptance Criteria.

Now, I will skip the transit area and move to the source areas.

It is our intent to recover waste from these waste management areas. I mean that is the goal behind NSDF, or one of the significant goals behind NSDF is to contribute to the cleanup of the existing environment and waste management areas at the Chalk River site. So we will recover wastes from these waste management areas:

Waste Management Area A, the liquid dispersal areas, Waste Management Area B, for example, a few other things that we call special burials. So as those source areas are recovered, again, wastes that meet the Waste Acceptance Criteria for NSDF would be put into the NSDF facility. Much of this would be considered bulk waste as well, so just for further clarification.

What I have left out is sort of the transit distance that these plumes will go. In some cases it's fairly short distances. In the case of the chemical pit it's a distance of about 20 metres or so. In some other cases, in the case of the nitrate plant it's a distance of about 300 metres.

And the reason I'm mentioning this is depending on the balance of impact that the retrieval operation would have at that time, recognizing you have to dig into the sort of overburden soil to get down to the plume, you may cause more issue in doing that in terms of environmental impact than leaving that where it is to undergo a process that we refer to as natural attenuation. So there will be a separate additional decision point for that in-transit portion of the plume and that is, you know, whether it is better to leave it there as natural attenuation. Those are typically lower concentrations than either the source area or the receiving treatment system

and that is why we would, you know, consider that from that perspective as well.

If the decision was to recover that, those soils, again we would compare that against the Waste Acceptance Criteria. Having said that, I have no doubt that those in-transit soils would meet the Waste Acceptance Criteria for NSDF.

Maybe I will leave it there and see if you need anything more.

THE PRESIDENT: I think that's good for the record. It's probably something you want to follow up with the intervenor just to confirm.

And then also from CELA is -- and, Ms. Vickerd, you addressed this today, but I just wanted to see if you wanted to add more -- what percentage of the volume of the NSDF is required for waste that is not yet created?

MS. VICKERD: Thank you.

Meggan Vickerd, for the record.

So, as we mentioned this morning, 300,000 cubic metres are regenerating in existing storage. NSDF has been designed for 1 million cubic metres, so 30 percent is already generated. We have already talked about 10 percent from offsite sources other than Chalk River.

As part of our Integrated Waste Strategy,

CNL does develop estimates in waste forecast and as part of that strategy we are required to ensure that we have facilities available before the waste is generated.

So we would generate roughly 600,000 cubic metres from the Chalk River site cleanup and ongoing operations at Chalk River. So this represents approximately 60 percent of the total facility volume that has not been generated. These numbers are aligned with the forecasted low-level waste inventory that CNL has provided for national inventory reports and these estimates will be optimized through application by waste hierarchy as well.

I just want to make sure we remind the Commission that under Chalk River site *Licence Handbook Condition* 11.1, the licensee shall not produce in the course of its licence activities or accept from outside clients waste for which there is no identified treatment storage or disposal facility. So this waste, we have not generated this waste because we do not yet have a disposal facility or storage facility for it and any new waste that is generated will be characterized according to modern waste characterization standards and approaches to ensure that it meets NSDF's Waste Acceptance Criteria.

THE PRESIDENT: And just to make sure that the picture is complete, Ms. Vickerd, how much of that 600,000 is currently onsite and part of your cleanup of the

site itself and demolition plans?

MS. VICKERD: Meggan Vickerd, for the record.

So the 60 percent roughly translates, as I said, to 600,000 cubic metres. In our National Inventory Report we do identify that from decommissioning or contaminated soil that is about 500,000 cubic metres.

THE PRESIDENT: Thank you very much.

The next question is from Eva Schacherl, Council of Canadians Ottawa Chapter, and it is about the waste water treatment plant.

The decommissioning of the wastewater treatment plant and equalization tanks will create significant radioactive waste over the 50 years of operation, et cetera. This physical activity will generate significant amounts of radioactive waste that cannot be placed in the NSDF because it will be after the closure of the NSDF. Yet, the EA fails to seriously consider the management of this waste generated during closure of the NSDF project and decommissioning of support facilities.

I will start with CNL. So what are the plans for the wastewater treatment plant after closure, please?

MS. VICKERD: Meggan Vickerd, for the record.

So for the response to this question we will go to Mr. Greg Finley. He is joining us remotely. He is the Facility Authority for NSDF.

MR. FINLEY: So with regard to the waste that will be generated during the decommissioning of the wastewater treatment plant, any low-level waste that will be generated will be managed in accordance with CNL's waste management program. Currently we have a preliminary decommissioning plan for the NSDF and that plan is required to be updated periodically through the life of the NSDF, assuming the project is given the go-ahead.

Quantities of waste will be minimized due to the application of modern design principles and the waste hierarchy. So basically, with current design principles we design with the end in mind and so that allows us to make sure that we generate as little waste as possible, particularly low-level waste.

And then during the closure, any structures that remain in the wastewater treatment plant will be decontaminated so that we can either have them treated as clearable waste or reuse them or recycle them. That being said, at the end of it there will likely be a small amount of low-level waste and that waste will need to be managed in accordance with CNL's Integrated Waste Strategy at the time.

I will leave it there and let me know if you need any more detail. Thank you.

THE PRESIDENT: Thank you.

Ms. Vickerd.

MS. VICKERD: Thank you, Mr. Finley.

Meggan Vickerd, for the record.

So I think a key principle we want to highlight is that our legacy waste facilities were not designed with decommissioning or waste management in mind. New modern principle is that when we propose facilities we need to have a preliminary decommissioning plan and an idea of how do we minimize waste going forward. So the facility has been designed with that principle in mind.

THE PRESIDENT: But to operationalize that, that there will be need for another low-level waste management facility, where else would that low-level waste from the water treatment plant decommissioning go?

MS. VICKERD: Meggan Vickerd, for the record.

So we would utilize our Integrated Waste Strategy. So, as mentioned, the Integrated Waste Strategy helps us identify what facilities we currently have available to us and sometimes that doesn't -- that is not just CNL facilities, sometimes that is the use of supply chain.

THE PRESIDENT: Thank you. That helps.

Okay, the next question is from Brennain Lloyd from Northwatch. This question actually is for CNL and perhaps AECL as well.

Have CNL or AECL staff compared CNL's Integrated Waste Strategy to the CANDU Owners Group Radioactive Waste Leadership Forum 2020 outputs? It is referenced in the seventh report I guess of the CNS. If so, to what degree do the strategies online and in what areas do they differ? If this comparison has not been undertaken, why not?

MS. VICKERD: Meggan Vickerd, for the record.

So I will start, but perhaps AECL will want to come up and comment as the waste owner.

So as the waste operator, CNL does have an Integrated Waste Strategy which we have been discussing. We do participate in a number of national forums, including the Reference Strategy Group. We do also participate in other CANDU operator group networks where we share our experiences and lessons. CNL does present our Integrated Waste Strategy and we have also presented on our NSDF application.

I think the one thing I do want to comment, not only do we share lessons and experiences, the

waste that CNL manages on behalf of AECL is specific to the research facilities that we operate, so it may be slightly different than the types of -- although the waste category is the same, the volumes and nature of the waste stream can be different from nuclear power plants. So we compare similarities, but we recognize where we may be different.

Certainly, we have talked about the extent of the volume that NSDF needs to accommodate is because of the complex operating history of the Chalk River site, which is not comparable to the volumes of low-level waste that nuclear power plants need to manage.

So perhaps to AECL.

MR. MacDONALD: Yes, Alastair MacDonald, for the record.

I think that the work you are referring to by the core group has probably been largely superseded by the work the NWMO were reading on the Self-Integrated Waste Strategy across Canada right now and, you know, I can confirm that AECL are certainly participating as that strategy gets developed.

THE PRESIDENT: And while you are here and as we talk about Canada's Integrated Waste Strategy that NWMO is developing on behalf of NRCan, again just to confirm that if and when that strategy is finalized, any implications on CNL's strategy and plans would have to get

amended to be in alignment with that. And do you anticipate any impact on the proposal in front of us as a result of that? I know we have asked this before and you have answered, but maybe to just make this complete.

MS. VICKERD: Meggan Vickerd, for the record.

CNL's existing Integrated Waste Strategy is aligned with the existing NRCan Radioactive Waste Policy as well as the framework within Canada. We do plan on updating that once the policy is available. But as mentioned previously, the Integrated Waste Strategy -- sorry, the strategy for NSDF is aligned with what we are seeing in the draft policy. CNL has been actively part of that discussion process and dialogue to make sure that we keep our Integrated Waste Strategy and this proposal in front of you aligned.

THE PRESIDENT: Thank you.

AECL, did you have anything to add?

MR. MacDONALD: Alastair MacDonald, for the record.

No, I don't think there is a lot I can add to that. We're completely in alignment with the policy as we see the draft and from a strategic point of view I think we are very clear on where this project fits into that strategy and as that strategy evolves I would see that

having more an effect on ILW waste in the future, but that is not for this project.

THE PRESIDENT: Thank you.

The next question is to CNSC staff and it is a question from Dr. Hendrickson, Concerned Citizens of Renfrew County and Area, and it is to do with the *Draft Licence Condition Handbook* and Licence Condition G.7, which says:

> "The licensee shall implement the licensing regulatory actions prescribed by the Commission, review and closure of the licensing actions as administered by the Commission..." (as read)

Are those licensing regulatory actions readily available to the public?

MS. MURTHY: Kavita Murthy, for the record.

I will pass this to Kim Campbell for a response.

MS. CAMPBELL: Kim Campbell, for the record.

The answer would be yes, they are referenced in the *Licence Condition Handbook*, and the *Licence Condition Handbook* is available to the public. So

the answer is yes.

THE PRESIDENT: So one would just press on the link and you would get those licensing actions. Okay, thank you. I think Dr. Hendrickson said he actually had to request a copy of it, Mr. Mohamed.

MR. GACEM: Mohamed Cherif Gacem for the record.

On the licence for the proposed Near Surface Disposal Facility, yes, I confirm that we shared with Dr. Hendrickson the licensing regulatory actions document. And while it's a draft and it needs Commission approval, we shared it with him as a draft.

THE PRESIDENT: Okay. But I don't think you have answered my question then.

People have to request a copy of the draft action list, you can't just press a link and get a copy of it?

MR. GACEM: No, no. No, it's in the LCH.

THE PRESIDENT: Oh, it is. Okay. Thank you. Thank you.

His other question was around the Safety Analysis Report and the Waste Acceptance Criteria which are in draft form. Do they become final if and when the Commission approves? Like when do they change from draft to final and what role does the Commission play in that?

MS. CAMPBELL: Kim Campbell, for the record.

I would like to confirm to the Commission that the documents that CNL submitted in their application, more specifically the Safety Analysis, is a final document.

THE PRESIDENT: Right. So what the Commission is seeing is the final one and it only said "Draft" because the Commission approval has not happened. Right.

Okay, let's see. The next question is by Ms. Judith Fox Lee and it is a question to CNL.

There have been many problems on the public record with the prior nuclear waste management at Chalk River, Port Hope and Port Granby over the previous decades since the various storage and cleanup activities have been attempted or executed in these locations prior to the most recent projects. Which where the most difficult problems identified that you studied and considered? Please list as many of the most serious of these problems as possible and share how your proposal includes specific mechanisms and procedures to remedy each of these problems.

So you don't have to give us a whole lot, but give us some and then maybe follow up with the intervenor, please.

MS. VICKERD: Meggan Vickerd, for the

record.

Can we just clarify, was the question around lessons learned from facilities that CNL owns?

THE PRESIDENT: Yes. And the specific projects are at Chalk River, Port Hope and Port Granby.

MR. BOYLE: Phil Boyle, for the record.

I think the most significant problems that occupied time at Port Hope and Port Granby and that were certainly inputs into the design of the NSDF were water control, primarily as it related to exterior water control, water from precipitation and how you controlled that, and then processing of water that is collected from the disposal facility itself and maintaining that system functioning well.

I know for a fact that there have been many changes to the water control at Port Granby and Port Hope as a result of experiencing larger than anticipated precipitation events and increasing the tank capacity and doing some other changes that factored into the design at the NSDF, where the water collection is based on back-to-back 100-year storms.

And then also there was a review done of the wastewater processing plant. You know, there are a lot of different techniques that are available for processing and purifying water and so you have to decide which ones

are best for your collection of contaminants and your process flow rate. Both Port Granby and Port Hope have a wastewater treatment plant and so there were some differences there and those were inputs to the design for the NSDF wastewater treatment plant.

THE PRESIDENT: Thank you very much, Mr. Boyle.

And there are a couple of questions from William Turner.

The first one is to staff and it is to do with licensing basis and REGDOCs. And, Ms. Murthy, you can give your update later.

On licensing basis and REGDOC, I will just give an excerpt of the question.

Throughout the hearing so far I continually hear the CNSC staff refer to their various REGDOCs as requirements that the proponent is required to address. However, REGDOCs cannot be enforced as they are not legislation.

So I am going to skip the rest of it, but maybe if you can just share with everyone how REGDOCs fit into the licensing basis and how CNSC carries out their compliance verification against these REGDOCs.

MS. MURTHY: Kavita Murthy, for the record.

So specifically for the NSDF, a lot of the REGDOCs that are referred to will be incorporated into the *Licence Condition Handbook*. How REGDOCs are used as compliance verification criteria is that they -- by incorporating them into the *Licence Condition Handbook* and into the compliance verification criteria, when CNSC staff conduct their regulatory compliance activities then they look at the requirements in those documents and those make up the compliance matrix that we verify licensees' compliance against. So they are -- they do become -- and they are enforceable. We inspect against them pretty much all the time, it is a part of our compliance work.

THE PRESIDENT: Thank you.

And did you have a comment on a previous question or response?

MS. MURTHY: Thank you.

I just wanted to make sure that our communication was perfectly clear to you, because we don't want to walk away from here -- we do want to walk away from here making sure we all understand everything the same way.

Your question earlier regarding Licence Condition G.7 to Dr. Hendrickson's question about NSDF regulatory actions which is linked with an e-doc number, it does not have a hyperlink within the *Licence Condition Handbook*. Your question was: Can one go in today and

click on it and get that document?

At this point in time, no. We did provide it upon request. Our intention is once the licence -- if the licence is issued and the *Licence Condition Handbook* is amended, we are going to put hyperlinks so that document will be visible to everyone. I just didn't want you to have the impression --

THE PRESIDENT: Yes, I am glad you clarified it because until you did I thought the link was there.

MS. MURTHY: Thank you.

THE PRESIDENT: Even though, Mr. Mohamed, you said it wasn't, but I -- yes, thank you.

Okay. And the last question, also from Mr. Turner, was to do with slides 20, 21 and 22, but it is to do with non-radiological contaminants and it is to CNL and CNSC staff.

As discussed in slide 20 and depicted in slides 21 and 22, the concentration of two toxic metals, copper and lead, exceed the Canadian soil quality criteria for agricultural land use by several times. Both CNL and CNSC conclude that the proposed mound is unlikely to cause adverse environmental effects. Please justify this conclusion when the benchmark for these two metals exceeds the CSQC by several times.

So I will go to CNL first and then CNSC.

MS. VICKERD: Meggan Vickerd, for the record.

So I will start, but perhaps Mr. Dolinar might want to add on.

If the intervenor is taking our inventory that is in the mound, the waste inventory, and determining the concentration from that, I would say the environmental quality criteria does not apply because that inventory is waste. So, it's not conventional to take concentrations of waste and compare it to environmental quality criteria, because the environmental quality criteria is developed to ensure soils or water that a member of the public is interacting with is at levels that are safe for them to interact with.

The purpose of putting the waste in the mound is to ensure the waste is isolated and contained from the public so they cannot interact with it.

So, from CNL's understanding, the application of the environmental quality criteria is not appropriate because it is waste inventory that is contained and prevents the public from interacting.

I will go to Mr. Dolinar to confirm.

MR. DOLINAR: George Dolinar, for the record.

I don't have anything to add to Ms. Vickerd's answer.

THE PRESIDENT: Thank you.

CNSC staff, please?

MS. MURTHY: Kavita Murthy, for the record.

Dr. Elias Dagher is joining us remotely, and he can provide a response to this question. Thank you.

DR. DAGHER: Thank you. Dr. Elias Dagher, for the record.

I'm going to complement Ms. Vickerd's response by putting it in terms of the post-closure safety assessment and what were the results of that for the non-radiological contaminants and the scenarios.

So, in all of the post-closure safety assessment scenarios, the normal evolution scenario and all of the other ones that were shown, a few results, mainly for copper, lead and uranium, did exceed acceptance criteria very slightly. Those acceptance criteria are based on Ontario Ministry of the Environment provincial environmental quality standards, and they are essentially representative of background concentrations in Ontario.

CNSC staff, as part of our own review, we did compare all of those results to Canadian environmental quality guidelines for protection of agriculture, livestock

and irrigation, as well as the Canadian Council of Ministers of the Environment soil quality guidelines. And in every scenario they were well below. The results were well below all of those very, very protective guidelines. Thank you.

THE PRESIDENT: Thank you very much for that.

That completes all the questions we've got from intervenors that we wanted to follow up on.

Commission Members, did you have any follow-up questions to what we have heard on those questions?

Ms. Maharaj? Dr. Lacroix? No?

Again, I encourage both CNL and CNSC staff to follow up with the intervenors with their other questions.

Let's proceed with any other residual questions that Commission Members may have, based on what we have read and what we have heard over the last four and a half days.

We will start with Dr. Lacroix, please.

MEMBER LACROIX: Thank you very much.

Mr. Boyle, you touched on this subject already, but I want to come back.

In any engineering design, the design

itself must comply to what we call a spec sheet, a specification sheet, and the design of the NSDF is no exception. So, it was designed according to a list of criteria that you have to comply with.

Are there specifications in the design of the NSDF that are susceptible to evolve during the construction of the NSDF, that could compromise the construction, could delay the construction?

And if I could suggest an example, the waste acceptance criteria, if evolved to a point during the construction of the NSDF that you would say oh, oh, stop, we didn't anticipate that. We have to go back.

MR. BOYLE: Phil Boyle, for the record.

I would say in any construction like this, there is the opportunity for things to change as they develop. The specification for materials might change. There might be a new standard for steel. There might be new rules relative to dust control that are health related. So, all of that is certainly possible.

There has been a lot of work done that gives us confidence that it is unlikely that we would need to change the waste acceptance criteria to the point that the design of the NSDF wouldn't accommodate it. But it's possible; very unlikely. I think there's an awful lot of room and margin.

One of the things that I'm sure you appreciate is that in any of these kind of designs, you have margin. You prepare yourself for things not being quite like you expect them to be.

I recall and think a lot, as I read through the interventions, about human error. Yes, we anticipate human error. Any good engineering design should do that, and it should do that not just to one level but two or three levels deep and make sure that your facility can handle a mistake.

I'm sure that Mr. Luckett can give us more insight on the specs in particular, if you are interested. We can go to Mr. Luckett.

Mr. Luckett?

DR. LUCKETT: Can you hear me now?

THE PRESIDENT: Yes, we can.

DR. LUCKETT: For the record, Mark Luckett, AECCOM.

Yes, as Mr. Boyle mentioned, we have a very robust design. There are many areas of the design that have flexibility built into them. Perhaps I'll give a couple of quick examples and then pause to see if there are further questions. But I think they are good examples. And certain examples we've touched on earlier in the week.

The wastewater treatment plant, for

example, one area where there could well be change. Once we have real-time data on the leachate collected, we may find the characteristics of that leachate vary from what we've projected at this point in the design.

So, the treatment system is flexible. We can change the make-up of the ion exchange columns, if need be. We can change the methods of chemical precipitation at the front end to remove different soluble metals than perhaps we have projected.

So, I think that is a good example.

Another pertinent one may be if precipitation data changes over the long term, although we have accounted for climate change in our numbers and have been conservative. If we need to change the configuration of the stormwater management ponds to increase the area of the forebay, increase the area of the main ponds themselves to achieve better sediment, that is something we can do because of the inherent flexibility we have in the design.

So, I thought those were perhaps a couple of good examples to mention. Perhaps I will leave it there, but I'm happy to answer other questions.

MEMBER LACROIX: Yes, I do have an additional question concerning the waste acceptance criteria.

Is the waste treatment plant flexible

enough to accommodate a more stringent waste acceptance criteria?

DR. LUCKETT: For the record, Mark Luckett, AECOM.

Yes, the wastewater treatment plant can adapt to a more stringent waste criteria, again using some of the techniques I just mentioned.

MEMBER LACROIX: Okay. It's taken into account in the margins of flexibility. Thank you very much.

MR. BOYLE: Dr. Lacroix, I was just going to point out that there's a number of nuclear facilities on site that have been there for a number of years, and they have been upgraded as requirements have changed.

For example, fire protection requirements have resulted in different alarm systems, different sprinkler systems, and that would no doubt occur here also.

MEMBER LACROIX: No. My question was I was afraid it could compromise the construction.

THE PRESIDENT: Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madam Velshi.

I have two questions, just to fill out my understanding.

The first is with respect to the conditions that you've identified in your document. Let me just get you the name. The Consolidated Commitments List

where you have pages and pages and pages of commitments.

Having some experience in managing large volumes of data myself, I'm looking at those commitments and I'm looking at a fairly generic commitment management structure here. I'm wondering if you could give me a bit more detail, a little more comfort, with respect to how you're going to manage commitments, commitment compliance, monitoring over a period of what is likely to be 50 years.

MR. BOYLE: Phil Boyle, for the record.

I'm going to ask Sarah Brewer to comment on this.

MS. BREWER: Sarah Brewer, for the record.

CNL has a management system to manage actions just like this. We currently manage a large number of actions. We manage many nuclear facilities on our site now. So, the management of these actions will be handled in the exact same way.

We have a software system that we use. The software system allows us to identify regulatory actions separate from some of the regular actions that we might track related to OSH improvements, that sort of thing.

Then we will be able to track NSDF specific actions using a nomenclature defined way of tracking that.

Further, we've looked at all of those commitments and binned them by lifecycle phase. So, there's the construction phase, the operations phase. And what will be important is for us to have those construction or preconstruction actions in that action system. That system also allows us to define a closure criteria. Some of those actions or commitments are kind of broad. Within that system we can define what it takes to close that action, the closure criteria. Then staff will be able to enter that closure criteria associated with that particular commitment.

We will also have management review of the fact that the evidence provided actually does meet what is required by the commitment.

And then we can look at all the preconstruction or construction commitments, convince ourselves that they are closed and provide that evidence, as required, to CNSC staff.

MEMBER MAHARAJ: Okay. So, two related questions.

One, will there be an accessible means for the public or interested parties to gain insight into your compliance with your conditions, your condition management, ensuring that there doesn't need to be a regulatory oversight review in order for them to wait to find out

whether or not you are complying with the conditions that you've set out in this particular document?

MR. BOYLE: Phil Boyle, for the record.

Yes, there will be.

MEMBER MAHARAJ: Okay.

MR. BOYLE: Ms. Brewer?

MS. BREWER: Yes. So, the methodology that we would have for the public to obtain that data would be that annual report and, if desired for members of the public to be able to access that in a different forum, they would simply need to request that from us.

I guess…

Yes, we can. We will be able to provide that.

MEMBER MAHARAJ: And the reason I ask is because there was specific intervenor concern around whether or not they were going to have to wait for a year to find out whether or not you had met your commitments and whether or not they were going to have to wait for your summary, your own impression of whether or not you had met commitments, or whether they would have access to the actual data.

So, can you just clarify that point, please.

MS. VICKERD: Meggan Vickerd, for the

record.

We have talked about some of the specific communication forums we have set up, including the Environmental Stewardship Council or Committee. We can utilize that forum to gather input as to how to best present commitments of interest to the public in a meaningful way.

Currently, the management system we're talking about is not necessarily meaningful to the public, but we will figure out an avenue so that we could communicate and make sure that transparency is there.

MEMBER MAHARAJ: Okay. I do believe the transparency on commitment compliance is something that we've heard over the last five days in particular would enhance public trust in CNL. Let me say it that way.

MR. BOYLE: Phil Boyle, for the record.

Yes, we agree. And I think Ms. Vickerd's description and approach is probably the best one.

The other direction which would necessarily be helpful would be to somehow publish that database or have it live, that people can access remotely because of the potential that there's phrasing in there that's not understood or something.

If we come up with a method, working with the interested parties via the Environmental Stewardship

Council, we can make that much more frequent than once a year.

MEMBER MAHARAJ: Okay, super. That would be great. Thank you.

My second question is around the security plan for the NSDF. I know we've touched on it tangentially, but I'm wondering if you could just help me clearly understand concisely.

I remember that there's going to be a fence. I don't remember when that fencing is going to be put into place.

I know there were some concerns about the entire facility being open, all ten cells, for 50 years, which we know is not the design plan. However, there will be a cell open before it's closed and then another cell open before it's closed.

Can you just speak to site security in the construction and operations periods and then in the post-closure period, because it does also have some spinoff effects on wildlife movement through that space.

MR. BOYLE: Phil Boyle, for the record.

I'm going to ask Ms. Vickerd to talk about the specific fencing arrangements around the site.

But in terms of the general security on the site, we do have control at the site level for

protection. We've got a security force that can respond to any kind of incursion that occurs. And we utilize fencing and access control around the site for various areas, depending on the level of sensitivity and controls that are needed.

So, that's the general description of how we function.

Ms. Vickerd, can you talk about what will be around the NSDF?

MS. VICKERD: Meggan Vickerd, for the record.

NSDF, as a Class 1B facility on our site, would certainly have a fence, not only from a security or prevention to access and control, but also to demark that that is a zoned piece of our property that has nuclear substances in it.

So, the fence is there not only for security but for zoning for protection or other aspects.

Now, the facility is only a low-level waste facility, so there's not -- we don't require certain levels of security through the security regulations. It's primarily for access control, to prevent inadvertent access or intrusion into the facility.

The fence would go up during the construction phase. During construction we want to limit

access to the site because of conventional hazards during construction. But the fence and the way it's specified in the Environmental Assessment would go up and be present before we accept waste and nuclear substances enter the area. That fence would remain throughout operations with some maintenance and upgrades, as necessary.

At the time that we close the site, we may assess that we could reduce the footprint. That would be in accordance with the Preliminary Decommissioning Plan or the Detailed Decommissioning Plan at that time, depending on if some of the ancillary facilities are still present.

The fence will be there during -- through all phases, including institutional control. We have identified in the institutional control plans or proposal that the facility will have that site physical security feature, including signs and markers. So not just a fence but some indication through signage not to access the site, site restricted, that kind of notation on a sign.

MEMBER MAHARAJ: Thank you very much. Those are my questions, Madam Velshi.

THE PRESIDENT: Thank you, Ms. Maharaj.

I don't have questions as much as maybe observations from yesterday's discussion around Indigenous consultation and engagement and maybe frustration a bit on our part, a little bit of puzzlement and frankly concerns.

Let me start off with what we heard from a number of Indigenous Nations, that there has been no consultation that has happened with their communities on this project. Then what we heard from both CNL and CNSC staff was that just so many attempts had been made -- and it turns out that it may not have been with the right organization to reach to them -- but they had either been thwarted or had just not been reciprocated.

The one that really puzzled me was when the Chief of Wolf Lake was adamant that she had not received any correspondence from CNSC, and then found out that she's actually the Grand Chief of ANC who the correspondence -- maybe it's a timing issue.

To me, it just drove home how complex this whole piece is, and persistence is not enough; that this requires an absolutely different way of reaching out and getting to the table together, and neither party has been successful to date on that. And that, frankly, really has to change because everyone is saying we've got to work together on this.

So, that one was particularly, as I said, puzzlement on how can this communication not be happening.

The second one, which is probably the more important one for this particular project and the matter in front of the Commission is: Has adequate consultation

happened and what is planned around that?

I really wanted to give both CNL and CNSC staff -- because yesterday we didn't have a round of questions -- on what you heard yesterday and what are your plans, if any, or change in plans as a result of what has been heard?

It really is around KFN and the Kitigan Zibi Anishinaabeg that I'm particularly interested in hearing on what are your plans to make sure that their concerns are well understood and any accommodation that's required has actually been addressed or will be addressed?

Maybe I will start with CNL first, please.

MR. McBREARTY: President Velshi, thanks very much for that question. Joe McBrearty, for the record.

I think we obviously had a very similar observation, and I think it is a complex problem. It's a complex issue.

Mr. Boyle kind of touched on it this morning in his opening remarks, that in the listening process over the last several days and particularly yesterday we learned that somehow it's just not getting through.

The onus is on us and us as the proponent, I think even more than the CNSC staff, in my personal

opinion, to get out and redouble the efforts. So, let me just kind of give a few examples here.

We've actually started having leadership meetings at the Chief CEO level with AAO and AOPFN in particular. And I think that has helped drive trust across the board.

We haven't had those with the remainder really of the rest of the First Nations, and particularly KFN and Wolf Lake and Barriere Lake. I think that's what has to happen. It has to be a demonstration from every level of our organization to every level of the First Nations organization.

The question or discussion came up this morning on responsibility and making sure that constituents actually understand what the true facts are. We have to be able to have that conversation, a very clear and well-understood conversation with the leadership. The leadership really has the responsibility, I think, to be able to take that message.

But we also have to at the same time -- and this was I think brought home pretty well yesterday by several of the First Nations intervenors, that we with our kind of western technology have to listen a little bit more, actually a lot more, to the First Nation's interpretation of how they view things from a scientific

or, you know, a world perspective.

With that said, the onus I believe is on us. I think we have gone back each night this week and talked amongst ourselves and said, "Okay, what do we do differently? What can we do differently and how do we up the effort, right, and make it more impactful?"

I think to be honest, this hearing has enabled that. It's actually put us all in the room together so that we can look at one another and start those conversations. I think it was one of the First Nations mentioned it yesterday, I'm not sure which one, but the discussion in kind of a circle, you know, vice kind of -- you know, across the -- I always felt like it was the World War One conference table of, you know, who's negotiating who's going to win or not.

And I think those are good things, because we have experienced that with our First Nations engagements in some cases already. But we're not there. And I think if we walked out of here saying that we felt we were there and didn't need to do much more, or didn't need to change things in a way, we would have missed the point.

And I think it's not only for us, I think probably CNSC Staff heard the same message. I think AECL heard the same message. You know, we have a responsibility to be able to communicate stuff that is fairly complex.

You know, we sitting in this room may all understand the nuclear world fairly easily and much of this is, you know, easy to understand. But I try to take myself out of the nuclear world and put myself maybe from a medical perspective. I don't know everything that I would want to know about medicine, or epidemiology, or something like that. So how can I communicate it to myself, or how would I do that?

So I think, you know, onus is on us to improve our communications and double down and get out there at the higher leadership level. I think I want to just stop there and, you know, I'm certainly open to further discussion and questions.

THE PRESIDENT: Okay. Let me hear from Staff and then we will open it up for further discussion. Ms. Murthy?

MS. MURTHY: Kavita Murthy, for the record.

So your choice of puzzlement is a word that I think really hits home for us also. For our licensing assessments it feels like things are very straightforward. There is a playbook, there's a GSG, there is an SSR. You look at it, you make sure everything is met. There is no playbook here. I think the playbook is to be developed with partners at the table to understand

what the needs are and to come to the table, somewhat like it what we require licensees to do with the public information and disclosure program. It is to say what are your needs and how can we satisfy your information needs, provide you the information you need?

There isn't a single answer, I don't think we can give a single answer and say, we will do this, and it will fix all the problems. There are steps that we have taken as the Commission is well aware, by including Indigenous community members in our independent environmental monitoring programs. We also have a strategy in place to include them in some of the environmental protection inspections, so that they see the work we do, so they can understand what we're doing and how we're doing it.

But above and beyond that we have communicated successfully with organisations such as the Tribal Council, that we were told yesterday we should not be communicating with, with other indigenous communities, and that has been the way they have wanted to be communicated with. So understanding the nuances of what works with each individual community is important. It is not an easy task. It takes a lot of time.

So we are committed to doing that as Clare will speak shortly and give you maybe summary of the

Indigenous -- the strategy we have in place. But I want to say that, we do not come to the Commission with our recommendations until we have made sure that we have and the proponent has satisfied all the requirements that we see as being important to give you all the information you need to make your decisions. So where we are today, the information we gave you today, to the best of our knowledge, was information that we needed to give you.

Now, beyond that, the bigger question is how do we change things, and what do we change coming forward? So definitely after listening yesterday, we realized that there are other things that we need to be doing. So without being too longwinded, I'm going to pass this to Clare so she can complete this answer, thank you.

MS. CATTRYSSE: Clare Cattrysse, Director Stakeholder and Indigenous Relations at CNSC.

To follow up on that, first of all, we did make a number of commitments and discussions with CNL about what types of commitments other indigenous groups in Ontario wanted made. And we will definitely commit, because this is for all Indigenous Nations, those commitments made towards environmental monitoring, like Ms. Murthy said, and regular outreach, info sharing, cultural awareness sessions, all of those things will be addressed with the other Nations.

I must say, we were glad actually, to hear that they were coming, like, we heard they were unable to come to the hearing, and by coming to the hearing we've actually been able to talk to some of the Chiefs here on the side afterwards. There is a willingness to come and talk about long-term relationship agreements. Wolf Lake has already emailed us prior to the hearing too saying that there was an interest in talking to us, so the door is now open.

Because it did take both parties to come to the table, so this is a really positive sign. And so, when you have both parties sitting at the table, now we have can have richer discussions about what it is that their needs are, what it is that we can do to try to address some of the issues. But beyond, about all the facilities that we regulate in their territory, and also moving forward on the other projects taking forward in their territory.

We've been meeting with Kebaowek First Nation on an arrangement, as you've heard. We are also working on project specific arrangements for the other environmental assessments taking place for collaboration, and this great interest there. And we'll be talking to the other Nations as well with the same offers for those other two projects that are coming up, because there's still some

time in the timeframes to actively work with them on that.

In terms of things to learn, yeah, I think first of all we will be asking the Nations, much like you did to, okay, so this didn't work? And people don't pick up the phones, and if you don't have a consultation office, what are the best approaches? I think now that we have some face time with the leadership, that is really going to help a lot.

Other lessons too is how to bring the information before the Commission. There's all kinds of things that we're looking at in-house at CNSC as part of our continuous improvement about how to bring matters before the Commission. And you know, right now we're adding extra information in the RORs, but maybe there are different ways that we can give you updates, and keep you better informed on where things are going. L, like, Ms. Maharaj had said with some of the commitments, we are doing updates in the RORs, but maybe there are things we could be doing better to bring matters before the Commission of interest in the Nations.

THE PRESIDENT: Thank you.

MR. McBREARTY: So Madam Velshi, Mr. McBrearty, for the record.

A couple of things as I was listening to Ms. Murthy and Ms. Carrrysse. A few things also came to

mind here, and I think it's based on some of the experiences but having recently. You know, we've looked at reconciliation and trying to, you know, get past the past and improve conditions going into the future. And one of the ways I think we do that is by being, you know, more tightly partnered with Indigenous communities going into the future.

So that you know, it's not just one organization that succeeds and another one fails, or at someone else expense. But actually, all organisations benefit from the success of the entire group. And as part of our long-term relationship agreements, and this is the -- it's a slowly maturating process and it takes time. As I'm sure the Staff will vouch for, it takes time to go through these discussions and involve communities more in our future. So that they are trying our future, we are trying to their future.

And I think that's really important as part of any reconciliation action plan, because we intend to continue to exist. We believe, as a nuclear science and technology laboratory this is vital to the country, and we would like to have Indigenous communities and First Nations tied to us so that, you know, we all succeed. And at the end of the day, our success is their success and vice versa.

So those are relationships and discussions that take some time to develop and firm up, and it takes some trust. It takes trust on both sides to be able to do that. And one of the, you know, one of the more specific areas, or concrete actions that I have seen work in many areas, and we have it -- Mr. Quinn mentioned it the other day -- are several programs that involve actual First Nations members being part of, you know, operations on our site. So the First Nations could actually hear from their people coming from there constituents, from their members, what's going on, and not seeing it come up on chain go across and come down another chain, but actually hear it from people who are working at the site. And I think that's really -- I think that is impactful, it's a project program that we are working towards.

And you know, those are areas which I believe that we have, you know, we have the capability and that's probably one of the ways that we improve our outreach. The discussion earlier, when acceptance is you know, I think a very real discussion, because sometimes everyone thinks of the nuclear world as all behind a fence, you don't see it, it's kind of very much a mystery. And what people who are actually working at the site can come home and describe to their friends, their neighbors, their families, this is what happens here, it's not a big

mystery. This is what folks are doing, this is why we're doing it, and this is why in particular this project is a safe project, and it's going to make things better. So maybe, I don't know if that gives anymore insight or not, thanks.

THE PRESIDENT: No, I think that is helpful, because I think what happened yesterday, I think I wouldn't call it a beginning, but I think it's given impetus and we shouldn't be losing momentum, Staff as well as you. There are definitely expectations, there's goodwill on all sides, and as we heard over and over again, it's not just words, we want to see action and we want to do it together.

So we had -- and it's unfortunate we didn't do this yesterday when everyone was in the room, but I did want to get your thoughts on that. So I don't have any questions, I think we've gone through those over the last few days.

But maybe I'll turn to Mr. Dermarkar, AECL as both the owner and agent of the Crown, if you want to make any remarks, any concluding remarks around the hearing and the proposal in front of us, please.

MR. DERMARKAR: President Velshi and Members of the Commission, thank you for giving me this opportunity to say some concluding marks.

To everyone who participated in hearing this week, members of the public, civil society organizations, municipalities, and especially the Indigenous nations, I also say miigwech to all of you.

From the perspective of AECL, let me be clear, because this came up a few times. We are the crown corporation responsible for the management and safe disposal of wastes that we ourselves and the Government of Canada created during 70 years of pursuing nuclear science activities. Activities that have created an immeasurable benefits to the health, welfare, and economic prosperity of all Canadians, including First Nations.

AECL will ensure the long-term financial guarantees and the long-term institutional controls for this project. It's our accountability to the Government of Canada, and we have the weight of the government behind us to deliver on this accountability.

Our business model has been mentioned several times in this hearing, and I'd like to clarify how we and CNL work together. Our model is a made in Canada solution that draws upon best international practices. But let me very clear on this point, CNL does not make profits. There is no financial benefit for them to make the project less expensive. Their incentive is to earn fee. The fee we pay to their parent body, Canadian National Energy

Alliance, CNEA, is designed to incentivize CNEA to achieve AECL's objective in a safe, timely, cost-effective manner, that protects the environment and is in full compliance with regulatory requirements.

Through a comprehensive oversight and monitoring program AECL alone -- AECL alone decides how much he has been earned CNEA based upon our assessment of CNL's performance. At the end of the day AECL is accountable to ensure value for money for the Government of Canada and for all Canadians. Our mandate from the government is to dispose of our waste safely and responsibly, and not leave it to be inherited by future generations.

Our mandate is also to drive nuclear innovation and to make it possible through new research and testing facilities, which means dismantling and removing old, contaminated facilities that will create more waste. We need a place to dispose of this along with our legacy waste, and we believe that the safety case for the NSDF has been clearly demonstrated, tested by CNSC Staff, and supported by many expert interveners.

It's incumbent upon us to act now. As has been mentioned several times, there are many old and contaminated buildings and wastes that have been stored using practices we would not condone today. They need to

be remediated to protect the environment. This proposed license amendment aligns well with current government policy on radioactive waste, as well as the draft revision to that policy.

I can also confirm to the Commission that I foresee no conflict between this licensing process and the performance audit that is currently underway by the Office of the Auditor General.

My next point is about protecting the Ottawa River. The deliberations this past week had made it clear that the NSDF will improve the river's protection. Like all those that have spoken for the water and for the creatures that cannot speak for themselves to hold the protection of the river and then surrounding environment as our top priority. Many of AECL's own employees live by the Ottawa River and draw their drinking water from it.

I'll conclude my remarks by reflecting on what I took away from listening to the perspectives shared by the First Nations interveners. And it complements the discussion that was just taking place before I was asked to speak.

I want to start off by saying that I was very moved by the ceremonies and the personal stories that they shared, and I am sure that I was not alone in this room. Reconciliation is a journey, a path defined by

commitments made and commitments kept. Today for the record, I want to offer four commitments to drive us forward on this journey.

First the AECL leadership team and I are personally committed to listening, to understanding, to improving, and most importantly to taking meaningful actions to advance reconciliation with Indigenous communities on whose lands we operate.

Now for us to understand, we first need to learn. So my second commitment is that my team and I will continue to learn about Indigenous history, culture, traditions, and world views, and we will do this through dialogue by increasing our efforts to reach out to Indigenous communities. This will not only enrich our understanding, but it will also help those communities to feel that they are being consulted, and that we are living up to our FPIC obligations.

My third commitment is that we will look for ways to increasingly integrate Indigenous knowledge and values into our organizational policies, procedures, practices, and projects, so they are reflected in our thinking and become part of our DNA. And I learned things yesterday that I had not thought of regarding how you even set up a room to have this kind of meaningful dialogue, and we will be looking for ways to do that.

My fourth commitment is that we will look for ways to empower and enable First Nations communities to participate in the projects that CNL is performing. We're starting to do this now. We had a workshop on procurement and how we can further engage indigenous communities on our procurement process. We want to look at how we can enable them through learning at colleges to be competitors in the procurement process. And we want to continue to expand our efforts to pursue these opportunities, so they contribute to the economic prosperity of these First Nations communities. And to Joe's point, we want them to feel like they are part of the success, part of the development and growth of what we're doing.

So I've made four commitments, and making commitments important because it creates hope. But hope is not enough, we know that, and delivering on the commitment is what builds trust, and building trust is our objective.

President Velshi and Members of the Commission, I want to thank your staff and the staff of CNL for their exceptionally hard work, their dedication, and their professionalism throughout the hearings this week. On a personal note here, I want to say I've been around this business for 40 years and I've been extremely impressed by the quality of the work, and the quality of the preparedness on both sides. And I want to thank you,

the Commission, for your commitment and leadership, for your openness, your patience, and your understanding, and for allowing me right now to provide these closing remarks.

Miigwech.

THE PRESIDENT: Thank you, Mr. Dermarkar. And I'll turn to Mr. McBrearty for final remarks from CNL, please.

MR. McBREARTY: Madam Velshi, thank you very much for the opportunity to say some remarks in closing.

This is the first time I've participated in a CNSC hearing aside from part one, and I have to say that along with Mr. Dermarkar, I was impressed with the conduct of the hearing. I do want to thank the CNSC Staff, the Commission for all of your efforts and the time I know you all have devoted to this, because I do think it's a very important issue and we do need to resolve it.

There are a few things that I have is takeaways, you know, in listening over the last week to the interveners in the Indigenous communities. We're all really on the same page. We want to clean up the environment. We want to protect the river. We want to be able to safely -- people understand that the waste has to be dealt with and we want to handle it safely.

The waste is here today, as I think

commissioner Maharaj said several times, the waste is in the ground, it exists today and it is not -- the vast majority of it is not isolated, it is exposed to the elements.

We do have the technology. We do have the expertise. And these, as some of the folks have said, these are not experimental facilities, they are well known. It may be a first in Canada, but it is not the first throughout the world. We know how they work. We've looked at the lessons learned in the United States, and from our expertise and experience at Port Hope and at Port Granby. So we do have lessons learned and when you cooperate these lessons learned.

I think that's one of the things we need to take away from this. The nuclear industry, along maybe with the airline industry, are probably two of the industries that understand lessons learned probably better than many organizations, because the stakes are so high if you don't get it right. And so we have looked at this, we believe that this project at the end of the day, it reduces risk today. It will reduce risk to our workforce, it will reduce risk to the general public and to Indigenous communities. It reduces risk to the Ottawa River, and it reduces risk overall to the environment.

I believe it's the right project, it's the

right time. As I said, I think it may have been Monday evening, there is an urgency in my mind. We've been asked, mandated, by the federal government to clean up the federal legacy waste. That is our role as the contractor for AECL. So the time, I believe, is now to be able to conduct this project.

I'd like to talk just a bit more, because we have -- I'm not sure how many commitments do we have Ms. Vickerd, several 100 commitments. I don't know exactly how many, I'm getting old so I can't remember that -- in our environmental assessment follow up monitoring plane.

And to your question Commissioner Maharaj, these are very important to do and they're just words. We have gone through each and every one of those commitments. But that's the only way that we can reassure the public that we are trustworthy, and we have to be able to follow up on those commitments. And those are not commitments that we take lightly. We understand that they have to be executed, the public has to be informed, and we have to be transparent about that.

And in the discussions -- I had talked about this a little bit earlier when we were discussing the puzzle problem -- the puzzle piece problem earlier here, it is all about acceptance and communication. We believe that the project is the right project for the right time, but

not everybody believes that, and we understand that that's the case. We believe that this is a journey in communication and acceptance.

We do know that we've been very successful in communicating to several or many of the jurisdictions on the Ontario side of the river, a little less so on the correct side, and that we need to improve that. And like I said, while it takes both sides to be able to understand and listen, we are the proponent. The onus is on us to be able to communicate and be able to put out messages that are easily understandable.

One of the intervenors yesterday, I think Mr. Roy, you all asked him a question and it was, do you feel optimistic? I'm not quite -- I couldn't remember who actually asked the question, but somebody asked the question, are you optimistic about the chances of moving forward?

And I was actually kind of buoyed by his answer, because he is optimistic. And you can -- and I am as well. and I think we can be optimistic, because this proceeding has brought a number of people together all looking for the same answer to improve the environment and protect the water. And it's allowed us to start to work together.

There will always be some division and

there will always be different opinions, but what I've seen here today is unlike what I've seen in most other hearings in my past. People have been able to voice their opinions. We have been able to have good discussion, and I believe we can reach, you know, a good conclusion -- a good conclusion out of this process.

I do thank you for your time. I know this has been an awful lot of work for all the teams, for our team and the CNSC Staff team, they've been doing this for about six years. We believe we have looked at this project just about everywhere we can. We have had an international experts come and look at it and provide us comments. We have had multiple comments from the public, I believe over 600 if I'm correct, and we have dispositioned those comments.

So I do believe that there is interest, there has been public interaction, and I think that's actually one indication that there has been a lot of public interactions. The number of comments is fairly significant, and we have dispositioned those comments, we believe satisfactorily, and we intend to disposition any comments that come forward. And to go back to the commitment standpoint -- commitment discussion, we will continue to ensure that what we have told people that we are going to do we will do.

You know, trust is one of the most valuable things in a relationship. It might be the most valuable thing in a relationship. And I think there's some areas here we need to work on with trust, and we will.

So with that said, I want to thank you again for your time, for taking the ime with us and listening to our team and also to AECL and the Staff. Thank you.

THE PRESIDENT: Thank you very much, Mr. McBrearty. and I thank everyone of you, each and everyone of you for your participation.

And with that, Denis, over to you for closing remarks, please.

MR. SAUMURE: Thank you, President Velshi. Before concluding this week’s part two of the public hearing I join my voice to thank all the participants here, and linked via zoom and the webcast, people from CNL, CNSC Staff, all the intervenors, Indigenous Nations and communities. And special thanks to our Technical Support staff, the Best Western staff, in the Registry staff. Thank you very much.

At this time the Commission will confer with regards to the information under its consideration and determine if further information is needed, or if the Commission is ready to proceed with the decision with

respect to this matter. Once the Commission makes its the decision on sufficiency of information, we will communicate the specific timelines to submit the final submissions.

Thank you. Merci à tous. Bon retour à la maison.

--- Whereupon the hearing concluded at 2:31 p.m. /
L'audience se termine à 14 h 31