

Canadian Nuclear
Safety Commission

Commission canadienne de
sûreté nucléaire

Public hearing

Audience publique

November 24, 2021

Le 24 novembre 2021

Public Hearing Room
14th floor
280 Slater Street
Ottawa, Ontario

Salle des audiences publiques
14^e étage
280, rue Slater
Ottawa (Ontario)

via videoconference

par vidéoconférence

Commission Members present

Commissaires présents

Ms. Rumina Velshi
Dr. Sandor Demeter
Ms. Indra Maharaj

M^{me} Rumina Velshi
D^r Sandor Demeter
M^{me} Indra Maharaj

Secretary:

Secrétaire:

Mr. Marc Leblanc

M^e Marc Leblanc

Senior General Counsel:

Avocate-générale principale :

Ms. Lisa Thiele

M^e Lisa Thiele

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by videoconference / par vidéoconférence

--- Upon commencing on Wednesday, November 24, 2021
at 10:00 a.m. / L'audience débute le mercredi
24 novembre 2021 à 10 h 00

Opening Remarks

THE PRESIDENT: Good morning and welcome to the public hearing of the Canadian Nuclear Safety Commission on the application by Cameco Corporation for the renewal of the licence for the Blind River.

Mon nom est Rumina Velshi. Je suis la présidente de la Commission canadienne de sûreté nucléaire.

I would like to begin by recognizing that participants in this hearing are located in many different parts of the country. I am speaking to you from Toronto in the traditional territory of many Nations, including the Mississaugas of the Credit, the Anishinabeg, the Chippewa, the Haudenosaunee and the Wendat peoples, and now home to many diverse First

Nations, Inuit and Métis peoples.

I would also like to acknowledge that the Blind River Refinery, which we will be talking about today, is located in the Robinson-Huron and Robinson-Superior Treaties territory and the traditional territory of the Anishinabek, Métis and Odawa peoples.

I will pause for a few seconds in silence so that each of us can acknowledge the Treaty and/or traditional territory for our respective locations. Please take this time to provide your gratitude and acknowledgment for the land.

Je vous souhaite la bienvenue and welcome to all those joining us via Zoom or webcast.

Under my authority to do so in section 22 of the *Nuclear Safety and Control Act*, I established a three-member Panel of the Commission to conduct this licence renewal hearing. I will preside over the hearing, and I have with me on the panel Dr. Sandor Demeter and Ms. Indra Maharaj, who are, like me, present remotely for this virtual hearing.

Ms. Lisa Thiele, senior general

counsel to the Commission, and Marc Leblanc, Commission Secretary, are also joining us remotely.

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

Marc, over to you.

MR. LEBLANC: Thank you very much.

During today's business, we have simultaneous interpretation. Please keep the pace of your speech relatively slow so the interpreters have a chance to keep up.

L'audience est enregistrée et transcrite textuellement, and the transcripts will be in the official language that was used. 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 proceeding is being video webcast live and that the proceeding is also archived on our website for a three-month period after the closure of the hearing.

As a courtesy to others, please mute yourself if you are not presenting or answering a question.

As is typical for virtual proceedings, the President will be coordinating the questions to avoid having two people talking at the same time. During the question period, if you wish to provide an answer or add a comment, please use the Raise Hand function.

THE PRESIDENT: Thank you, Marc.

CMD 21-H8.A

Adoption of Agenda

THE PRESIDENT: Thank you.

With this information, I would now like to call for the adoption of the agenda by the Commission Members as outlined in Commission Member Document CMD 21-H8.A. Do I have concurrence?

For the record, the agenda is adopted.

Before we begin with the presentations, I understand that Mr. Brent Niganobe from the Mississauga First Nation would like to provide a land acknowledgment and opening remarks.

Mr. Niganobe, the floor is yours.

MS. PITAWANAKWAT: Good morning. My name is Peyton Pitawanakwat. I will be speaking instead of Brent Niganobe.

I'd like to say that the Blind River Refinery rests on the mouth of the Mississauga River, the heart of Mississauga First Nation territory.

Mississauga First Nation is described in the Robinson-Huron Treaty territory as, "the land between the River Mississaga and the River Penebewabecong, up to the first rapids." However, our traditional territory is vast and extends far beyond the first rapids to the Arctic watershed.

As Indigenous people, we don't acknowledge land, we honour it and describe the history of our efforts to preserve and maintain our homeland.

The Mississauga River has been altered from its original state. There are multiple hydroelectric generating dams. It was once said that there were so many sturgeon spawning in the spawning season that you could walk across from one side to another without getting wet.

Our families use the river to move from the summer grounds to the wintering grounds, moving supplies and people along the original highways of this land. Our grandparents created gardens as way stations when they travelled north. However, now our access is limited and interrupted because of industry.

On the east side most Canadians call that river the Blind. Our people called it the Biniwaabikong-ziibi.

In 1855, about five years after the Treaty was signed, the Blind River was dammed to generate electricity for what was then the largest white pine lumber mill east of the Rocky Mountains. It flooded sections of the reserve lands described in the Treaty.

We must acknowledge land is at the centre of reconciliation. Generations of Mississaugas have protected our territory for future generations. We all must work harder to make reconciliation a two-way road of reciprocal respect and relationships by settling outstanding land claims and land use issues. Only then can true reconciliation begin.

Miigwech.

THE PRESIDENT: Thank you very much.

We will now commence the public hearing and, Marc, I'll put it over to you for introductory remarks.

MR. LEBLANC: Merci, Madame la présidente. The Notice of Public Hearing and Participant Funding on this matter was published on March 8. The public was invited to participate in writing and by making oral presentations. August 19 was the deadline for filing empty intervenors. The Commission received 50 requests to intervene.

November 10th was the deadline for filing supplementary information and we note that supplementary submissions and presentations have been filed by CNSC Staff, Cameco Corporation as well as several intervenors.

Participant funding was available to intervenors to prepare for and participate in this public hearing. Funding was approved for two groups. The funding decision by the Funding Review Committee is available on the CNSC website.

Before the lunch break, we will first hear the presentations by Cameco and CNSC Staff and presentations by two intervenors.

Eight intervenors are scheduled to present orally after the lunch.

While the presentations are limited to 10 minutes, Commission Members will have the opportunity to ask questions after each presentation. There is no time limit for the question period.

The written submissions will be addressed during the final rounds of questions.

I also want to note that representatives from other provincial and federal government departments are joining us remotely to be available for questions.

President Velshi.

THE PRESIDENT: Thank you.

Let's begin with the presentation from Cameco Corporation as outlined in CMDs 21-H9.1 and 21-H9.1A.

I will turn the floor to Mr. Liam Mooney for this presentation.

Mr. Mooney, over to you.

CMD 21-H9.1/21-H9.1A

Oral presentation by Cameco Corporation

MR. MOONEY: Good morning, President Velshi and Members of the Commission.

For the record, my name is Liam Mooney, and I am Cameco's Vice-President of Safety, Health, Environment Quality and Regulatory Relations. I have a *juris doctor* from the University of Saskatchewan and was admitted as a member of the Law Society in both Saskatchewan and Alberta. I started with Cameco's legal department more than 15 years ago and I have been in my current position for more than 10 years.

In 2007, I participated in the World Nuclear University.

I am pleased to have several people joining me today representing Cameco that I would like to now introduce.

To begin with, Dale Clark, who has

served as Vice-President of Cameco's Fuel Services Division since 2013. Located in Port Hope, Ontario, he is responsible for the division's operations in Ontario, including the Blind River Refinery, the Port Hope conversion facility, and Cameco fuel manufacturing facilities in Port Hope and Cobourg.

Prior to Dale's work with Cameco, he held various manufacturing management roles in three countries, including the U.S.A., England and Estonia. Dale received his Bachelor's degree in chemical engineering from the Michigan Technological University. Dale is also a Fellow of the World Nuclear University.

We are also joined by Terry Davis, who is a general manager of the Blind River Refinery. Terry spent 22 years with Cameco, from 1996 to 2017, and rejoined our team in late 2020.

In his career, Terry began as a metallurgist at key lake, moving to McArthur River at start-up, and held various positions at Cigar Lake, including chief metallurgist, commissioning and start-up manager, and production manager. Terry also

held the position of mill manager at Key Lake.

He spent two years with Teck Minerals as area production manager in their zinc refinery located in Trail, B.C. before starting his current role at the refinery. Terry holds a chemical engineering degree from the University of Saskatchewan.

Also with us is Tom Smith, who is the Director of Regulatory Compliance and Licensing for Cameco's Fuel Services Division. Tom has a BSc in chemistry and is a registered chartered chemist in the Province of Ontario. Tom has over 40 years of experience with Cameco, 15 of which were at the Blind River Refinery.

Here today as well is Rebecca Peters, the Superintendent Special Projects for Fuel Services Division. She has worked for Cameco since 2005, providing technical support and management in environment, radiation protection, quality, analytical services and regulatory compliance.

Rebecca has a Bachelor of Science degree and a Bachelor of Commerce degree, both from

Queen's University, as well as a Master of Science degree in aquatic toxicology from the University of New Brunswick. Rebecca is also a Fellow of the World Nuclear University.

We also have Laurie Cassidy with us representing Cameco. She is the Superintendent, Analytical, Compliance and Licensing of the Blind River Refinery.

Laurie has worked with Cameco since 2000 with increasing levels of responsibility in environment, radiation protection, quality, analytical services, security and regulatory compliance. Her previous work with Laurentian University included monitoring and decommissioning of uranium mines in Elliott Lake. She holds a double major Honours Bachelor of Science in chemistry and forensic sciences from the University of Toronto, and is also a Fellow of the World Nuclear University.

And last, but certainly not least, we have Sara Forsey, who is a Manager of Public and Government Affairs for the Fuel Services Division. Sarah has over 17 years' experience in communications

and stakeholder relations and has spent over half of her career in the nuclear industry.

We are pleased to be here today in support of our request to renew Cameco's Blind River Refinery licence for a period of 10 years. The requested 10-year licence provides us, our customers and the people who rely on clean nuclear energy with the regulatory certainty needed to enable our facility to operate for the next decade and to continue to do so in a safe, clean, reliable and responsible way.

As we all continue to navigate through the challenges posed by the COVID-19 pandemic, I would like to thank the CNSC Staff and the intervenors for their efforts in preparing for and participating in this proceeding.

I would also like to note at the outset that the pictures you will see in this presentation representing the entirety of the current licence term. In that regard, some of the photos reflect pre-pandemic work practices and state of the facility.

Next slide, please.

Cameco is a qualified operator with more than 30 years in uranium processing experience in Blind River. Our uranium is used around the world in the generation of safe, carbon free, and affordable base load nuclear energy. Continued production at the Blind River Refinery is key to Cameco's vision of energizing a clean air world, while respecting the values that guide all our decisions and actions.

More specifically, the safety of people and protection of the environment are the foundations of our work. We are committed to keeping our people safe and conducting our business with respect and care for both the local and global environment. We are committed to acting with integrity in every area of our business wherever we operate.

Through leadership, collaboration, and innovation, we pursue excellence in everything that we do, and we not only value of the contributions of every worker, but also work hard to demonstrate our respect for individual's dignity, creativity, and cultural diversity.

I will now pass the presentation to Dale Clark who will provide a brief overview of the Blind River Refinery and our accomplishments over the next -- the past licence term. Dale?

Next slide, please.

MR. CLARK: Thank you, Liam.

For the record, my name is Dale Clark, Cameco's Vice-President of the Fuel Services Division here in Ontario. Cameco is the licensed operator of the Blind River Refinery. The refinery is located approximately five kilometres to the west of the town of Blind River, on Lake Huron's north channel. Approximately two kilometres from our facility on the north side of highway 17 is our closest neighbour, the Mississauga First Nation. Our property covers an area of approximately 258 hectares in total, which includes a secured area of approximately 11 hectares representing the CNSC licensed area.

Next slide, please.

Blind River is the world's largest refinery and is the only standalone uranium refinery in the world. Since commissioning in 1983, Blind

River has safely produced over 410,000 tonnes of uranium trioxide, and at full production employs approximately 140 workers. The refinery is currently licensed to February 2022 and is licensed to produce 18,000 tU as uranium trioxide.

Next slide, please.

The refinery receives and processes natural uranium concentrates from around the world to produce uranium trioxide or UO_3 . The majority of the UO_3 produced is shipped to Cameco's Port Hope Conversion Facility, where it is converted into either uranium dioxide for CANDU nuclear reactors, or into uranium hexafluoride which is shipped internationally for use in light water reactors.

Next slide, please.

So this has been a busy and a very successful licence term and there are many highlights to note. To touch on just a few, I will share some notable accomplishments in the areas of environmental protection, safety, and community support.

In terms of our environmental performance, all air emissions and liquid effluent

discharges have been maintained well below the protective limits set by the CNSC for the entire 10-year term of this current licence. In fact, they have been maintained several orders of magnitude below the licensed release limits, without any environmental action level exceedances during this period. These results clearly indicate that Blind River operations are safe and do not result in any adverse effects to people and the environment around us.

In terms of safety, we are extremely proud of our safety culture and the commitment of our workforce that they have to looking out for each other and working safely every single day. The refinery has now operated for more than 15 years without a lost time injury, or well over 4 million hours. That is an incredible accomplishment and is a true testament to the dedication and the calibre of our people, our programs, and our commitment to safety.

As a result of these accomplishments, we are also very grateful to have incredible support from the community of Blind River. In our most recent polling, an overwhelming 96 percent of residents are

supportive of Cameco's operations.

It is because of this commitment to safety, the strength of our programs and processes, and the quality of our people that gives us and the community great confidence in our ability to continue to safely operate the Blind River Refinery during the next 10 years.

To the next slide, please.

So today we are before you to seek the renewal of the operating licence for the refinery for another 10-year period. Specifically, we are requesting to maintain the current production limit of 18,000 tU as UO_3 per year, along with the continued authorization to conduct the necessary activities required for and related to this production, as we have in place today.

We are also requesting to maintain the current approval in place to install and commission equipment required to increase the annual production capacity up to 24,000 tU as UO_3 , as may be required over the next licence term. Although we do not have current plans to install this equipment, it is

important to maintain this flexibility as business conditions may change quickly and we want to be in a position to respond appropriately. It is also important to note that this change already completed an environmental assessment in 2007 and was approved in our current licence by the CNSC commission in 2012.

The licence renewal request also includes an updated financial guarantee of \$57.5 million, based on a preliminary decommission plan that follows the CNSC guideline document. This plan is updated every five years, and the guarantee is in the form of an irrevocable letter of credit.

Next slide, please.

Equally important to our strong performance in the past, however, is our commitment to the future. We believe in continual improvement in all areas and look forward to another licence term of significant accomplishments. We are committed to open, timely, and meaningful communications. We will work hard to maintain and build a community partnership and support we have now. We also recognize an important need to strengthen our

relationship with the Mississauga First Nation and are committed to doing so.

Next slide, please.

Before turning it over to our general manager, Terry Davis, I also want to speak about COVID-19 and its impact on our operations. Throughout our response to this pandemic, the safety of our workers, their families, their communities, have all about Cameco's top priority.

As the pandemic began to tighten its grip in March 2020, we began suspending contract work, cancelled tours and visitors, and sent employees to work from home, where possible. On April 8th, 2020, we announced that UF₆ production at the Port Hope Conversion Facility would be suspended for approximately four weeks. And as a consequence, we had to temporarily suspend operations at the Blind River Refinery.

So much was changing and with many new government and public health directives coming into play, we needed to ensure that our workers were safe, that we were keeping up with best practices, and that

we always had an adequate workforce available.

Cameco quickly implemented and revised protocols across all our operations to limit the spread of COVID-19. This included site access screening, mandatory mask usage, physical distancing, enhanced cleaning and sanitizing measures, and work from home, where possible. We safely restarted both the UF₆ plant in Port Hope, and the Blind River Refinery as planned, and have continued to operate safely throughout the pandemic with no further shutdowns outside of scheduled maintenance programs.

In January and February 2021, we launched voluntary testing campaigns at all our Ontario sites, in which we completed hundreds of tests. In March, we were approved to receive rapid tests from the Ontario government, and since then have completed hundreds more tests. In Blind River, this testing was offered to employees weekly until the end of October, and I'm pleased to share that we have not had a single case of COVID-19 at the refinery at any point during the pandemic.

Now, effective November 15th, all

workers, contractors, and visitors to our Cameco operations, including Blind River, must be fully vaccinated. This is a significant step to ensure that we can continue to provide a safe workplace for our employees, families, and our communities.

Next slide, please.

As we all witnessed, the pandemic hit communities hard. In response to that, and in support of our communities where we operate, Cameco set up a \$250,000 COVID relief fund to help Northumberland County and Blind River area organizations who were being directly impacted by the pandemic.

In Blind River specifically, we supported 12 local organizations and we also donated P-100 masks and sanitizer to children's aid and to the local hospital. Our employees also got involved in creating new plexiglass barriers for use at a local hospital to help keep doctors and staff safe throughout the pandemic.

We will continue to do whatever we can to help not only our facility, but also our community get through these challenging times as best we can.

I will now ask Terry Davis, our General Manager, to discuss Blind River's performance in greater detail.

Next slide, please.

MR. DAVIS: Thank you, Dale.

For the record, I am Terry Davis. I am the General Manger of the Blind River Refinery. I joined the Blind River team almost one year ago, and I'm proud to lead a team that has had such great success in keeping people safe, maintaining radiation doses as low as reasonably achievable, or ALARA, and protecting the environment as we enter our fifth decade of operation.

Fundamental to our performance has been the strength of our management systems, the foundation of which is our Quality Management Program. This program guides all our safety and control areas, includes overarching processes such as health and safety, radiation protection, environmental protection, and training programs. Internal audits, as well as regulatory audits and inspections, are conducted on a regular basis to evaluate the

effectiveness of our management systems.

Blind River has a strong safety and reporting culture, as well as an effective correction action process. Workers report incidents and they are entered into our Cameco incident reporting system. We conduct investigations based on the significance of the incident and develop corrective actions. Our management systems, including the supporting programs, procedures and work instructions are mature and have been fully implemented.

Next slide, please.

Working safely is the responsibility of all individuals at Blind River and is actively promoted by myself, our managers, supervisors, and workers. We developed a safety charter that formalizes each worker's commitment to safety. All current employees have signed this pledge, and as GM, I meet with each new employee during orientation to review and affirm their pledge.

Maintaining a strong safety culture is achieved through continuous improvement and the consistent application of our mature Health and Safety

Management Program. Blind River has well-established systems and processes to identify, analyze, and control potential hazards in the workplace. Prior to initiating non-routine tasks, a job hazard analysis is conducted. As well, site inspections are routinely conducted by supervisors, members of our facility Health and Safety Committee and Safety Department personnel.

Workers receive standardized safety training. Safety meetings are regularly held to emphasize safe work practices and reinforce the use of proactive measures. The measures include job task observations, hazard recognition cards, and work permits. As shown on the slide, we maintained strong safety performance during the licence term. Our total reportable incident rate has been maintained at low levels throughout the licence term and is currently zero.

As Dale mentioned, this past June we celebrated 15 years without incurring a lost time injury. This achievement was possible because our employees are the backbone of our safety culture, take

great pride in the safety culture they have built and continue to nurture. Thirty-four (34) employees intervened in support of this renewal, because they are the ones that put in the hard work to keep ourselves and each other safe every day, and it is clearly important to them that their voice is heard when it comes to safety.

Next slide, please.

The Blind River facility continues to execute our systemic approach to training. This process provides the work force with both the skills and knowledge required to be performed while ensuring compliance to applicable internal and external policies and regulations. Training modules are reviewed and executed on a scheduled basis. New employee training plans are developed, and employees are granted qualifications as required, on completion of necessary training.

During the current licence term, a key highlight was the development and implementation of the Supervisor Radiation Protection training package. Execution of training and conventional safety programs

such as protection, control of hazardous energy, and emergency response, continue to contribute to our strong safety performance over the course of our licence term and will continue to do so going forward.

Production and operation training documentation is consistently reviewed, revised as necessary, and then trained on to keep all operators current in their skill set. Cameco has increased focus on providing mental health support to employees. Mental health first aid training, through the Canadian Mental Health Association has been offered to all supervisors. Awareness of mental health issues has become even more important as we continue to manage through the second year of the ongoing pandemic.

Next slide, please.

Blind River maintains a highly trained, proficient, emergency response organization. Our production operators are all members of the team, as well as many of our maintenance personnel. Several of our employees are also volunteer members of the Blind River Volunteer Fire Department. Blind River Refinery has a mutual aid agreement with this same

fire department.

Emergency response personnel maintain their skills through ongoing participation in tabletop exercises, drills, and simulations. All members are sent to Lambton College for a three-day training course as one of the prerequisites of joining the team and undergo routine retraining. As well, all members attend live fire training provided by the Sudbury Fire Department each year.

During the pandemic, we had to adapt our practices to ensure team members remained up-to-date in their training by reducing class sizes and having additional sessions.

The only event during the licensing term that triggered the emergency response capability on site was the yard fire at the refinery in 2020. Our investigation identified several corrective actions that have been implemented. These actions dealt with both the cause of the fire, reducing likelihood of a reoccurrence, and the response to the fire, improving the response for any future emergencies.

Next slide, please.

Consistent with the goal of keeping our radiation doses as low as reasonably achievable, or ALARA, radiation protection is managed in accordance with our mature Radiation Protection Program.

To begin with, our extensive program meets the requirements of the Radiation Protection Regulations. We update and implement any requirements from new regulations to ensure continued compliance.

At the refinery, radiation exposures are controlled through a combination of engineering controls, such as shielding; administrative controls, such as worker training; zone control; personal protective equipment; and the use of work permits.

Our defence and in-depth approach has led to a successful radiation protection program that uses many different controls. For example, personal monitoring, urine analysis, lung counting, contamination control, waste handling, ALARA program, respiratory protection, exposure control and monitoring, and finally training. The effectiveness

of these controls is routinely tracked and confirmed through comprehensive monitoring of both our workers and their work areas.

Finally, our performance is also assessed through the annual target-setting, internal audits, and annually during management review.

Next slide, please.

As you can see in the graph on this slide, we maintained strong radiation protection performance throughout the licence term. All measured annual average and maximum effective doses to workers were well below the annual regulatory limit of 50 mSv per year for nuclear energy workers, and Cameco's internal annual dose guideline of 20 mSv per year.

That we were able to continue to achieve this level of performance over so many years of operation is an indication of robustness and maturity of our program, the effectiveness of our training, and the professionalism of our radiation protection personnel.

Next slide, please.

Cameco's Environmental Management

System is registered to the ISO 14001 standard. Blind River has a robust environmental protection program that meets the requirements of the CSA N288 suite of environmental standards. These ensure we meet our commitment to environmental protection and regulatory compliance.

This program provides us with a systematic framework that we use to identify our environmental aspects, implement appropriate controls and to measure and continually improve our performance.

Blind River's comprehensive environmental program measures the quality of our stack emissions, liquid effluent discharges, and the condition of the surrounding environment. As Dale mentioned previously, Cameco's environmental performance has been strong throughout the current licence term.

All stack commissions and liquid effluent discharges from the refinery were well below regulatory and action levels. Further, the environmental risk assessment, or ERA, was reviewed in

2020 in accordance with N288.6. The ERA review concluded that human health and ecological risks attributable to the operation are negligible. This review has been posted to our website.

Next slide, please.

Uranium emissions to air from the dust collection exhaust vent, DCEV, and absorber stack are illustrated on this slide. These uranium emissions are well below the action level of 2.2 and 1 gU/h respectively, and a very small fraction of the current and proposed release limits.

Next slide, please.

The incinerator uranium emissions are illustrated on this graph and again, are well below the action level of 1.5 gU/h and a very small fraction of the current and proposed release limits.

Next slide, please.

Nitrate and uranium concentrations for the liquid effluent discharge are illustrated on this slide. For all years during the licence period, the discharges are below the action levels and release limits.

Next slide, please.

The refinery has a waste management program for the management of radioactive wastes. The goal is to minimize the volume of radioactive waste generated. A summary of the program is available on our community website.

Material containing uranium is reprocessed, recycled, and reused to the extent possible. In the licence period, approximately 40,000 drums of uranium containing product were sent to a uranium mill for uranium recovery. This practice increases the recovery of uranium and reduces the volume of waste that is generated at the refinery.

Further, approximately 250,000 empty drums were processed, decontaminated to unrestricted release criteria, and sent for scrap metal recycling. Waste material that cannot be reprocessed, recycled, or reused, are safely stored on site until safely disposed of.

In the current licence period, we executed projects to dispose of approximately 25,000 drums of marginally contaminated material at a

permitted landfill in the United States. We are now making routine shipments to eliminate the existing inventory and to prevent future accumulation of waste at the refinery.

Approximately 750,000 kilograms of contaminated combustible material, or CCM, was incinerated on site during the licence period.

As a corrective action identified in the investigation of the fire in 2020, Cameco has implemented improved waste segregation at all three Ontario facilities, changed storage configuration of CCM awaiting incineration, and is currently diverting some of the backlog to a permitted facility in the United States.

I will now pass it over to Sara Forsey, who will talk about our public information program.

Next slide, please.

MS. FORSEY: Thank you, Terry.

For the record, my name is Sara Forsey and I am the Manager of Government and Public Affairs for Cameco's Fuel Services Division.

We have worked hard over the years to build and implement the public information program and public disclosure protocol that effectively ensures that Indigenous communities, residents, organizations, and other target audiences with an interest in the Blind River Refinery have the information they need about our operations and activities.

We are committed to keeping our target audiences informed, and our communications approach emphasizes transparency, clarity, timeliness, and two-way dialogue. We know that the nuclear industry is complex and highly technical, which can make understanding the information challenging for those without a technical background. To help with this, we have distilled complex and highly technical information into clear, plain language summaries, which include our safety report, preliminary decommissioning plan, derived release limits, and environmental risk assessment, all of which are available on our website. We strive to keep the website up to date and included a dedicated page for this licence renewal.

Our website was redesigned in 2015 to establish a more localized approach to relevant content for our communities, including Blind River.

Next slide, please.

Cameco commissions periodic public opinion surveys to better understand the public perceptions and opinions related to the Blind River Refinery. Since 2009, when surveying first began, we have maintained high levels of support for the refinery, with 93 percent or more residents identifying they are supportive of the refinery. In our most recent survey in 2021, that number is 96 percent.

This support is reflected in the number of positive interventions received for this licence renewal. Our employees, some of whom are members of the Mississauga First Nation, communities, and local organizations, have taken the time to have their voices heard.

Next slide.

Cameco has been working to build and maintain long-term, meaningful relationships with the

Town of Blind River and the Mississauga First Nation. We send our Blind River Refinery quarterly and annual compliance reports to Mississauga First Nation, Serpent River First Nation, the Town of Blind River, and the Township of the North Shore, and these reports are publicly available on our website. We also provide regular updates to the Mayor and Council.

In 2010, Mississauga First Nation and Cameco worked together to establish and sign a Memorandum of Understanding. This MOU outlines our shared, and agreed upon, interests in working collaboratively and building a relationship of mutual respect.

Over the current licence period, we have met with the Chief and/or Chief and Council at least twice per year and have had dozens more updates via phone and emails as needed. We estimate that we have had at least 100 exchanges with Mississauga First Nation on a formal and informal basis during this licence term.

Over the current licence period, we have supported Mississauga First Nation's requests for

assistance with 40 projects that range from the annual powwow and Little NHL, to upgrades to their ballfield and sports complex. We have always been responsive to Mississauga First Nation's requests and have worked together to identify opportunities for collaboration and support.

For example, following a train derailment on MFN territory about five years ago, Cameco donated a HAZMAT trailer and equipment, along with the required training, to the MFN fire department. This project was born of a collaborative effort between Cameco, the MFN Fire Department, Chief and Council, and MFN's Lands and Resources Committee.

Another important example is the creation of an environmental technician position. At the start of this current licensing period in 2012, Mississauga First Nation approached Cameco for initial funding and training for an environmental technician position at Mississauga First Nation. We provided that funding and training as requested. This environmental technician was also present during the MOE sampling of soils and vegetation in the

Mississauga First Nation.

More recently, in October 2021, Mississauga First Nation asked us to meet with them to discuss a report on flooding risk. Cameco immediately made our subject matter experts available, provided factual information, and answered the questions that were posed during the meeting. No other issues that have been presented in MFN's intervention were brought forward at that meeting.

Our relationship has entered a period of transition, as changes in leadership have occurred at both the refinery and Mississauga First Nation over the past year. Cameco built and maintained a positive and respectful relationship with Mississauga First Nation Chiefs during the current licence period and we look forward to continuing on a positive path together.

Mississauga First Nation identified in their intervention that they have an interest in making changes to how we notify of events, environmental protection, and harvest food studies for Indigenous people. We look forward to discussions on

these areas of interest.

We have reached out on multiple occasions to Mississauga First Nation since the filing of their intervention and election of their new Chief, and have offered to meet and discuss the concerns raised. We look forward to coordinating that with Mississauga First Nation and continuing those discussions, as we remain committed to working with them to address concerns and ensure they are provided with transparent and factual information.

Next slide, please.

We are proud to operate in Blind River. For about 140 Cameco employees, this is also the area they call home, where they raise their families, and where they enjoy the many aspects of community life. We have been actively involved in enhancing the quality of life and making a positive difference for many years in the community and in collaboration with Mississauga First Nation, as already discussed.

We make investments in the community because it is the right thing to do. Our community

investment program prioritizes initiatives that focus on youth, education and literacy, health and wellness, and community development.

Not only do we provide financial support but, as you can read in the many positive interventions, we also invest the time and resources of our people through many volunteer-based initiatives. Our employees are proud of the work they do, both at the refinery and in the community.

A great source of pride is the Employee Giving Campaign. This program has supported 17 projects since it began in 2004. Employees, along with support from Cameco, have donated over \$750,000 to important projects, such as much-needed equipment for the Blind River Hospital, literacy programs with the Blind River Library, and the purchase of a disability van for the Thessalon Algoma Manor.

Next slide, please.

Cameco has made a formal commitment to diversity and inclusion. We understand the value of a diverse workforce, and we embrace, encourage, and support workplace diversity and inclusion.

Cameco has made commitments to ensure women in leadership is at the forefront of our diversity agenda. We undertook specific initiatives to increase women in leadership and have one female Executive Officer, and four female Vice-Presidents. Cameco currently has about 488 female employees, representing a quarter of our workforce. At the Blind River Refinery specifically, approximately 25 percent of workers are women, and 17 percent of workers self-identify as Indigenous.

With that, I will now hand it back to Dale for the closing slides.

Next slide, please.

MR. CLARK: Thank you, Sara.

Continual improvement is another critically important aspect of any successful operation. In accordance with our management systems, we undertook measures during this licence term to monitor, evaluate, and continually improve our performance in all areas at the Blind River Refinery.

We do this by setting annual objectives to improve our performance in safety and

health, environment, radiation protection, and emergency response, and then monitor these through formal reviews.

In addition, our non-conformance and corrective action process provides us with an effective framework for investigating incidents, and to not only help prevent recurrence, but also facilitate improvement of our processes. We investigate and learn from all events, near misses, or significant findings.

During the current licence term, we also implemented two other significant new programs to drive continual improvement. This includes an operational reliability program and lean manufacturing principles.

The operational reliability program involves periodic assessment of site reliability programs, based on 29 different program elements that align with industry standards. Blind River has moved from a reactive rating to a proactive rating during the licence period and is working on improvements in key areas to continue to strengthen this proactive

approach.

Lean manufacturing principles is another key program we've implemented across all Cameco facilities in recent years. Lean is a set of tools developed to reduce the waste associated with the flow of materials and information in a process, from beginning to end. All employees have been trained in the fundamentals of the philosophy and methodology, and a select team of employees were lean practitioners to help successfully deploy these techniques and to lead small incremental improvement areas. Eight employees have been trained as practitioners in Blind River, as well as support from other corporate and divisional employees.

Improvements have also been made to site and divisional programs in all the safety and control areas. This has involved implementing new and/or updated versions of more than 20 different CNSC REGDOCs and CSA standards. Blind River is committed to continuous improvement in all areas of operation. This commitment ensures that we will be able to sustain clean, safe, reliable operations through the

future licence terms.

Next slide, please.

In conclusion, we are very proud of the success that the Blind River Refinery has had over the current licence period and are confident in our ability to continue that track record of success for the years ahead.

We have seen strong performance in all safety and control areas during this licence term, which shows the strength of our people, programs, and practices that we have in place. Our mature management systems have proven effective in managing our operations and changes during this time. In particular, we have proven to be a world leader in safety performance with over 4 million hours worked without a lost time accident.

We have seen excellent environmental performance by maintaining emissions at a fraction of the safe regulatory limits. We have strong overall support from the Blind River community with 96 percent support for our operations in the most recent polling. And we recognize that there is more that we can and

must do and we remain committed to continual improvement in all areas of our operation.

In short, Cameco is fully qualified to carry out the activities that the new licence will authorize and this strong record of achievement at Blind River demonstrates that a 10-year licence renewal is appropriate.

Next slide, please.

This concludes our presentation, but of course we are available to answer any questions that you may have. Thank you very much.

THE PRESIDENT: Thank you, Cameco, for the presentation. We will now move to the presentation from CNSC staff, as outlined in CMDs 21-H9 and 21-H9.A. Ms. Murthy, I will turn the mic over to you.

CMD 21-H9/21-H9.A

Oral presentation by CNSC staff

MS. MURTHY: Thank you. Good morning, President Velshi and Members of the Commission.

For the record, my name is Kavita Murthy and I am Director General of the Directorate of Nuclear Cycle and Facilities Regulation. With me today are my colleagues, Mr. Andrew McAllister, Director of the Nuclear Processing Facilities Division, and Mr. Mike Jones, Project Officer from the same division.

Also with us are CNSC specialists who have been involved with the technical assessment and the compliance oversight of Blind River Refinery. They're available to answer any questions that the Commission may have.

We are here to present CNSC Staff's assessment of Cameco Corporation's application to renew their Class 1B licence to operate the Blind River Refinery. Our presentation, identified as CMD 21-H9.A, provides a summary as well as the highlights from CNSC Staff's written submission found in CMD 21-H9.

Next slide, please.

We will start this presentation by providing the purpose of the hearing. Following that,

with an overview of the Blind River Refinery, Cameco's licence application, and CNSC's regulatory oversight and the summary of our technical assessment of Blind River Refinery's safety and control areas. We will then cover off details of other matters of regulatory interest, followed by the licence and *Licence Conditions Handbook*, finishing with CNSC Staff's overall conclusions and recommendations to the Commission on the licence renewal application by Cameco.

First I wish to note some errata in CNSC Staff's submission. Two errata were identified in CMD 21-H9 on page 2, staff recommendation number 2. The end date of the proposed licence is February 2032, not 3032. And on page 7, Figure 3, the 2020 effective dose should be changed from 2.4 to 2.5 mSv.

We also noted one errata in the Environmental Protection Review Report for the Blind River Refinery. On page 33 of this report in relation to the public dose, there is a sentence which states: "This is as a result of radiological substances deposited on the ground from historical operations

during the period of 1983 to 2009." This is incorrect and it needs to be removed. The public dose is primarily due to gamma radiation from current activity and not the result of historical operations.

These errata do not change CNSC Staff's recommendations.

The purpose of this public hearing is to review, discuss and provide information on Cameco's application to renew the Blind River Refinery licence for a period of 10 years. CNSC Staff recommend that the Commission conclude that Cameco is qualified to carry on the activities authorized by the licence and will make adequate provisions for the protection of the environment, the health and safety of persons, and the maintenance of national security and take measures required to implement international obligations to which Canada has agreed.

CNSC Staff recommend that the Commission renew Cameco's operating licence for the Blind River Refinery for a period of 10 years and accept the proposed financial guarantee amount of \$57.5 million Canadian in the form of a letter of

credit and authorize the delegation of authority as set out in the CMD.

I will now turn the presentation over to Mr. McAllister.

MR. McALLISTER: Thank you, Ms. Murthy.

Good morning, President Velshi and members of the Commission. For the record, my name is Andrew McAllister, and I am the Director of the Nuclear Processing Facilities Division.

The next few slides provide an overview of the location and layout of the Blind River Refinery and discuss the activities carried out at this facility.

This slide shows the location of the Blind River Refinery. I will not go over this again since it was discussed in the Cameco presentation.

This slide shows an aerial overview of the Blind River Refinery. Key facilities include the uranium trioxide refinery, plant services and administration, which are located in the central building. The central building also contains an

incinerator for disposing of contaminated combustible material.

Several auxiliary buildings are also on site such as cooling towers, a solvent makeup building, an effluent pumphouse, a sewage treatment plant and storage buildings. The rear of the site contains three lagoons for treated processed water and one lagoon for collecting stormwater before discharge to Lake Huron.

The Blind River Refinery began operation in 1983. On March 1st, 2012, the Commission issued a CNSC licence to Cameco to renew the operation of the Blind River Refinery in Blind River, Ontario for a period of 10 years. In November 2017, the Commission accepted Cameco's financial guarantee for decommissioning of the Blind River Refinery in the form of a letter of credit for \$48 million Canadian.

In September 2020, Cameco submitted an application to renew the current operating licence for the Blind River Refinery for a 10-year period with no changes to authorized activities or production limits. The application included a request to update its

financial guarantee to \$57.5 million Canadian through a letter of credit.

The Blind River Refinery processes natural uranium concentrates into natural uranium trioxide, or UO_3 . The Blind River Refinery receives uranium concentrates from uranium mines worldwide.

In the refining process, nitric acid is added to the uranium concentrate to produce a uranyl nitrate solution. The impurities are removed from the uranyl nitrate solution using a solvent extraction process. The purified uranyl nitrate is then heated and concentrated, producing a nuclear grade uranyl nitrate hexahydrate liquid. This is then thermally decomposed to form UO_3 powder.

The UO_3 powder is stored in two ways. First, specially designed bulk containers called tote bins which contain approximately 9.5 tonnes of material each. These tote bins are transported to Cameco's Port Hope conversion facility. And secondly in steel drums for shipments to other customers.

Throughout the licensing period, Blind River Refinery implemented and maintained a packaging

and transport program that ensures compliance with applicable regulations. Cameco is also required to have emergency procedures in place for the material that they handle regardless of whether it's on site or transported off site.

These procedures have been assessed by the CNSC, and staff are satisfied with the procedures and measures that Cameco has in place.

The current licence was last renewed on March 1st, 2012 and is valid until February 28th, 2022. The current licence authorizes Cameco to operate the Blind River Refinery facility for the production of UO_3 from uranium ore concentrates, possess, transfer, use, process, import, package, transport, manage, store and dispose of nuclear substances for the production of UO_3 , and possess and use prescribed equipment and prescribed information for the production of UO_3 .

In addition, in 2012, in the record of decision, the Commission authorized Cameco to increase annual production capacity to 24,000 tonnes of uranium as UO_3 subject to conditions specified in the *Licence*

Conditions Handbook.

In September 2020, Cameco submitted a licence application request to the Commission. In the application, Cameco requested that the Commission renew the operating licence for a period of 10 years and maintain the authorizations granted in 2012 and accept a proposed revised financial guarantee of \$57.5 million Canadian through a letter of credit in that amount, the terms of which will not change. No changes are requested to the authorized activities in the proposed licence.

Next, I will speak about CNSC Staff Indigenous engagement for the Blind River Refinery.

CNSC Staff have identified Indigenous Nations and communities who have expressed interest in being kept informed of CNSC licensed activities occurring in their traditional and/or Treaty territories. In our current pandemic environment, engagement with Indigenous groups has been largely through email, letters, telephone calls and video calls. This slide lists the engagement activities undertaken for the present Blind River Refinery

licence renewal process.

However, it's important to note that CNSC Staff have been engaging with these Nations and communities for many years. For example, the CNSC has a well-established relationship with the Mississauga First Nation, including regular updates, collaboration on environmental monitoring activities, and annual meetings with their leadership and community representatives. CNSC Staff continue to engage with Indigenous peoples to build trust and foster relationships long term.

I will now pass the presentation over to Mr. Mike Jones.

MR. JONES: Thank you, Mr. McAllister.

Good morning, Madam President and Members of the Commission. My name is Mike Jones and I'm a Project Officer in the Nuclear Processing Facilities Division.

I will now discuss CNSC's review of Cameco's licence renewal application.

Cameco submitted its licence renewal application on September 30th, 2020, requesting a

10-year licence term. There are no new licensed activities proposed in this application.

CNSC Staff verified that the information submitted in support of the application is complete in satisfying CNSC regulatory requirements, including the *Nuclear Safety and Control Act (NSCA)* and associated regulations for all 14 safety and control areas, or SCAs, and assessed Cameco's past performance and record. CNSC Staff conclude that the application complies with regulatory requirements.

The CNSC conducts environmental protection reviews, or EPRs, for all licence applications with potential environmental interactions in accordance with its mandate under the *Nuclear Safety and Control Act* to ensure the protection of the environment and the health of persons.

CNSC Staff conducted an EPR under the *NSCA* which assessed the environmental and health effects of the Blind River Refinery. CNSC Staff's assessment was primarily based on information submitted by Cameco as well as compliance and technical assessment activities completed by CNSC

Staff. This assessment was also supported by the CNSC's Independent Environmental Monitoring Program, or IEMP.

CNSC Staff's assessment, conclusions and recommendations are summarized in the EPR report for the Blind River Refinery, which is available on the open government portal, and supports the recommendations in CNSC Staff's CMD 21-H9.

As part of a pilot initiative by CNSC Staff, the EPR report was released in April. Consultation ran from April to August, and one comment was received.

Based on CNSC Staff's assessment, staff have found that Cameco continues to implement and maintain effective environmental protection measures to adequately protect the environment and the health of persons.

In 2012, the Commission authorized Cameco to increase annual production capacity from 18,000 to 24,000 tonnes of uranium as uranium trioxide. Cameco has not implemented the production increase during the current licensing period. As part

of the current licence renewal application, Cameco submitted an updated safety analysis report and an update on necessary plant modifications for the production increase.

CNSC Staff concluded that the proposed modifications to the Blind River Refinery facility to increase production capacity continue to be acceptable and meet regulatory requirements.

In the proposed draft licence, CNSC Staff have recommended that a facility-specific licence condition, 15.1, be added, which requires Cameco to submit a final commissioning report prior to commercial production at an increased production capacity greater than 18,000 tonnes and up to 24,000 tonnes. The requirement was previously in the *Licence Conditions Handbook* during the current licensing period.

The next few slides discuss CNSC's regulatory oversight of Cameco's Blind River Refinery.

Regulatory oversight is provided by CNSC Staff to ensure licensees operate in a safe manner and in compliance with the requirements of the

Nuclear Safety and Control Act and associated regulations. Licensing requirements are comprised of licence conditions, CNSC Regulatory Documents and CSA standards.

The CNSC has a dedicated facility assessment and compliance team with oversight of all licensed activities at the Blind River Refinery. CNSC Staff performs compliance verification activities such as desktop reviews of quarterly, annual reports and licence applications, inspections, and desktop reviews of event notifications and event follow-up reports with corrective actions identified.

This slide reports on two aforementioned aspects; namely, inspections for which over the current licence period CNSC Staff undertook 32 inspections. In addition, over the current licence period, there were 33 events reported to CNSC Staff as required by the *Nuclear Safety and Control Act*, associated regulations and licence conditions.

Thirty-two (32) inspections were conducted from March 2012 to December 2020 which covered all 14 SCAs. Cameco has taken timely actions

to correct and close all identified non-compliances.

Non-compliances and the resulting corrective actions implemented are tracked by CNSC Staff through to completion using CNSC's Regulatory Information Bank tool. CNSC Staff verify completion of corrective actions as part of ongoing regulatory oversight.

Cameco is required to report unplanned events to the CNSC as required by the *Nuclear Safety and Control Act*, associated regulations and licence conditions. During the review period, Cameco provided notifications of 33 reportable events which were of low or medium safety significance. Event reports that are significant in nature or may be of significant public interest are presented to the Commission by CNSC Staff during public meetings.

Of the 33 events reports, one met the criteria for an Event Initial Report and was presented to the Commission in CMD 12-M43. Other reported events included transportation incidents, 16 radiation protection action level exceedances, all below regulatory limits, and a yard fire. There were no

lost time injuries and no environmental release events.

CNSC Staff reviewed Cameco's event notifications and follow-up reports with corrective actions and found these acceptable. Cameco's website included all reported events.

In addition, CNSC Staff report annually to the Commission on Cameco's compliance performance in the form of the Regulatory Oversight Report for uranium and nuclear substance processing facilities in Canada. CNSC Staff conclude Cameco met regulatory event reporting requirements during the current licence period.

I will now summarize CNSC's assessment of the regulatory performance of Cameco's Blind River Refinery as it relates to our framework of 14 safety and control areas.

CNSC Staff use a rating system to describe licensee compliance. Regulatory oversight is performed in accordance with a standard set of safety and control areas, or SCAs. SCAs are technical topics used across all CNSC regulated facilities and

activities to assess, evaluate, review, verify and report on licensee regulatory requirements and performance.

The table on this slide shows the 14 SCAs that were assessed during the technical assessment. The bolded safety and control areas in the table will be discussed further in the presentation.

As detailed in CNSC Staff's written submission, CMD 21-H9, Cameco's application complies with regulatory requirements. Cameco has maintained a satisfactory rating across all SCAs during the current licence period.

I will start with CNSC Staff's assessment of the management system SCA.

Cameco is required to implement and maintain a management system in compliance with the CSA standard on management systems. In 2018, CNSC Staff performed a detailed desktop review of Cameco Blind River Refinery's management system program manual and identified that it meets the requirements of this standard. Blind River Refinery's management

team conducts annual management reviews to assess the effectiveness of Blind River Refinery's management system and to consider any trends.

Blind River Refinery also conducts internal assessments, has a design change program, and a records management process. Finally, Blind River Refinery has conducted safety assessments which confirm a strong commitment to safety. CNSC Staff conclude Cameco's management system meets regulatory requirements.

Next is CNSC Staff's assessment of the safety analysis SCA.

The Blind River Refinery licence renewal application supporting documents include an updated Safety and Analysis Report, or SAR, for the Blind River Refinery facility. CNSC Staff assessed and concluded that safety analysis of hazards is acceptable and demonstrated adequate safety through defence in depth.

The SAR, which identifies facility hazards, analysis of consequences and documents mitigation measures, is acceptable. The SAR takes

into account the proposed modifications for the production increase.

The table on the right side of this slide illustrates the defence in depth approach in Blind River Refinery. To ensure that SARs remain valid and accurate, the CNSC requires that SARs be reviewed a minimum of once every five years or whenever a facility undergoes significant changes, whichever is sooner.

CNSC Staff conclude that Cameco's Safety analysis report for Blind River Refinery meets regulatory requirements.

Next is CNSC Staff's assessment of the radiation protection SCA.

The radiation protection regulations require licensees to implement a radiation protection program. As part of that program, licensees must keep effective and equivalent doses received by and committed to persons as low as reasonably achievable, or ALARA.

Blind River Refinery has implemented a radiation protection program that meets CNSC

regulatory requirements. The program is effective in keeping doses to workers well below CNSC regulatory dose limits, as will be shown in the next slide.

Cameco has established action levels for various radiological parameters, including external whole body, skin and extremity doses, uranium in urine concentrations and lung count results. Sixteen (16) action level exceedances were reported to the CNSC during the licence period. An overview of the exceedances is provided in Appendix B.1 of CMD 21-H9.

In all instances, Cameco completed investigations and implemented corrective actions to the satisfaction of CNSC Staff.

As was mentioned in the previous slide, Cameco consistently maintained doses to nuclear energy workers, or NEWs, below the CNSC regulatory dose limit during the current licence period. The figure on this slide shows the total effective dose statistics for NEWs at Blind River Refinery over the current licence period.

Maximum annual effective doses

received by NEWs were well below the regulatory effective dose limit of 50 mSv in a one-year dosimetry period for a NEW. CNSC Staff conclude that Cameco's performance for the radiation protection SCA is satisfactory.

Next in the presentation is CNSC Staff's assessment of the conventional health and safety SCA.

Cameco has an effective health and safety program. Through their health and safety program, Cameco has established tools for identifying and controlling hazards.

Employees are trained to identify hazards and the various means of minimizing risk from the hazards. Safety of employees is maintained through the use of personal protective equipment, use of barriers and signage, as well as general housekeeping. Finally, there have been no lost-time injuries at Blind River Refinery in 15 years.

Cameco's conventional health and safety SCA meets regulatory requirements.

Next is CNSC staff's assessment of the

Environmental Protection SCA. Cameco has an environmental protection program for Blind River Refinery. CNSC staff assessed and concluded that Cameco's environmental protection program is implemented effectively and meets regulatory expectations.

Licensees are required to review and update their environmental risk assessment at least every five years, or when there is a major change to the operation. CNSC staff reviewed Cameco's updated risk assessment in 2020 and concluded that it is acceptable, and that the human health and ecological risks attributed to Blind River Refinery operations are negligible.

On an ongoing basis, CNSC staff review the environmental monitoring program results to confirm that the environment and human health are protected. CNSC staff conclude that Cameco's environmental protection program meets regulatory requirements.

Air emissions are monitored at the different stacks associated with the Blind River

Refinery and reported on. Emissions are compared to current release limits in this slide. In addition, the Blind River Refinery has environmental action levels in place. No action levels for atmospheric emissions were exceeded at any time during the licence period. Air emissions have been consistently several orders of magnitude below licensed release limits.

The table on this slide provides liquid effluent from the Blind River Refinery facility and compares it against the current licensed release limits. There are also action levels for liquid effluent releases. No action levels for liquid effluents were exceeded at any time during the licence period. During the licence period, concentrations of uranium, nitrate, and radium-226, have been several orders of magnitude below licensed release limits.

At the request of CNSC staff, for this licence renewal Cameco established exposure-based release limits, or EBRLs, at its air and liquid release points at the Blind River Refinery facility. The EBRLs are conservative and ensure that releases stay below certain levels to meet human health and

environmental quality criteria. CNSC staff assessed and accepted these revised release limits shown in this table on this slide, as they are protective of the health and safety of people and the environment.

Cameco calculates the maximum doses to the public from the Blind River Refinery from its air emissions, liquid effluent releases, and gamma radiation. The CNSC's requirements for following the ALARA principle, taking into account social and economic factors, means Cameco must monitor their facilities and keep doses to the public below the annual public dose limit of 1 mSv/year prescribed in the Radiation Protection Regulations.

The table on this slide shows the estimated doses to the community from the Blind River Refinery facility. The doses continue to be well below the regulatory annual public dose limit.

Now I will speak to CNSC's Independent Environmental Monitoring Program, or IEMP. This slide summarizes past IEMP results at the Blind River Refinery. Five IEMP sampling campaigns were conducted in the area around Blind River Refinery between 2013

and 2020.

Sampling occurred at the perimeter to the Blind River Refinery facility, along the Mississauga River, and in the Mississauga First Nations, and the Blind River communities. The samples included air, water, and soil. All samples were analysed for uranium. Water samples were also analysed for nitrate, and pH. In 2020, radium-226 was also analysed. The results are posted on CNSC's IEMP online dashboard. The IEMP results indicate that the communities and the environment surrounding the facility are protected.

Next in this presentation is CNSC staff's assessment of the safeguards and non-proliferation SCA. Licensees, including Blind River Refinery, are requested to accurately measure and account nuclear materials. Therefore, any weigh scale to be used should be properly calibrated to ensure the accuracy of the measurements.

Prior to October 2019, Blind River Refinery validated the accuracy of its floor scales by confirming the weight of a reference tote bin. The

CNSC and the IAEA determined this method was unreliable since it could not indicate if the scale was accurately measuring throughout its weight range. Furthermore, IEA and CNSC observed that the positioning of the tote bins on the scale had impact on the readings.

In consultation with the CNSC, the IAEA adopted to have large standard weights stationed in Blind River Refinery which the licensee now uses to regularly calibrate its scale. Furthermore, Blind River Refinery has now clearly marked the precise location where containers must be placed on the scale to ensure consistent measurements.

CNSC staff continue to monitor Blind River Refinery's scale performance by reviewing the annual calibration and quarterly calibration reports, and comparing it with the IAEA load scale during IAEA inspections. Cameco's safeguards and non-proliferation program meets regulatory requirements.

I will now pass the presentation back to Mr. Andrew McAllister.

MR. MCALLISTER: Thank you, Mr. Jones.

I will now discuss other matters of regulatory interest.

First, I will speak of Cameco Blind River Refinery's preliminary decommissioning plan. The decommissioning of a nuclear facility is required to be considered in all phases of the facility's life cycle, and a decommissioning plan is required in the licence application.

The Blind River Refinery licence renewal application's supporting documentation included an updated preliminary decommissioning plan, or PDP, which includes a cost estimate for a Class 1B facility. CNSC staff determined the PDP meets the requirements of the CSA standard and the CNSC regulatory guide on this matter.

The PDP captures strategies, activities, and costs estimated for the decommissioning of the Blind River Refinery facility. Information on the Blind River Refinery's proposed financial guarantee is covered in the next slide.

As part of the licence application,

Cameco Blind River Refinery proposed an updated and increased financial guarantee of \$57.5 million Canadian through a letter of credit for that amount, the terms of which will not change. CNSC assessed the proposed financial guarantee amounts and instruments and determined that they meet the criteria of CNSC regulatory Guide G-206. The proposed financial guarantee amount is credible and the financial instrument is acceptable.

CNSC staff have reviewed Blind River Refinery's Public Information Disclosure Program and determined that it identifies clear goals and objectives in terms of dissemination of information to targeted audiences; identifies multiple target audiences in close proximity to the licensed facility; provides contact information for members who want to obtain additional information; and outlines the communications approach that Cameco will deploy to reach target audiences. Blind River Refinery's Public Information and Disclosure Program meets CNSC requirements.

With respect to public engagement, a

number of events have occurred. The announcement for the Notice of Hearing was posted on CNSC's website on March 8, 2021, on May 12, 2021, CNSC staff held its first webinar. This, meet the nuclear regulator webinar, included information on Cameco's licence application, the CNSC's licensing process, information on how to participate in the hearing, and Indigenous engagement and consultation.

On October 6, 2021, CNSC staff held a second webinar. This webinar focused on four safety control areas that were of interest to the community as shown in the outline slide for the presentation, shown here.

The CNSC Participant Funding Program assists members of the public, Indigenous Nations and communities, and stakeholders, in providing value-added information to the Commission through informed and topic-specific interventions. The CNSC awarded a total of \$57,527.55 (sic) to Northwatch and the Mississauga First Nation, from the Blind River Refinery licence renewal process.

A total of 50 interventions were

received. Forty-six (46) of the interventions indicated support from local businesses, groups, and individuals. There is an Indigenous grouping of themes that include Indigenous engagement and consultation, requesting CNSC commitment to reconciliation, more involvement in the CNSC's independent environmental monitoring program, emergency preparedness and response, events and other concerns in the 1980s and '90s, health effects due to uranium processing, lack of environmental monitoring in nearby Indigenous communities, and preliminary decommissioning plan.

There is a grouping of themes in the other interventions that include support from local businesses, groups, and individuals; a request for licence condition for a mid-term performance review report; a request for licence conditions related to reporting of soil monitoring data; environmental monitoring; waste management and preliminary decommissioning plan; the sufficiency of waste information in Cameco's application; the incinerator having a separate licence; and the length of the

proposed licence period.

I will now present information on CNSC staff's proposed licence and Licence Conditions Handbook.

Cameco is requesting a 10-year licence term. The proposed licence includes standard licence conditions and one nuclear facility specific licence condition, 15.1.

The draft Licence Conditions Handbook, or LCH for short, uses the CNSC standard template which includes a preamble and compliance verification criteria, which includes CNSC regulatory documents and CNSC group standards. Guidance is also provided where applicable, in enhancing the effectiveness of the measures for each safety and control area.

When assessing the proposed licence term, CNSC staff consider a number of factors. Cameco's Blind River Refinery is a mature facility with established programs and a management system focused on continuous improvement. The licensee's review of the safety report and environmental risk assessment every five years, the licensee reporting is

in compliance with regulatory requirements.

CNSC staff maintain regulatory oversight through desktop reviews, inspections, and event reviews. CNSC staff report to the Commission and the public through the Regulatory Oversight Report. And the requested 10-year term is consistent with CNSC licences issued to other uranium processing facilities and nuclear facilities across Canada.

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

MS. MURTHY: Thank you, Mr. McAllister.

I will now present CNSC staff's final conclusions and recommendations.

Based on the technical assessment of Cameco's application and supporting information, CNSC staff conclude that the application complies with the regulatory requirements. The licensee's performance during the licensing term was satisfactory and met CNSC's regulatory requirements, and that the proposed financial guarantee of \$57.5 million, through a letter of credit in the amount, is a credible cost estimate,

and the financial guarantee instrument is acceptable.

CNSC staff recommendations are given on this slide. I will not go over them again. Basically, CNSC staff are recommending that the Commission renew the operating licence for a period of 10 years until February 28, 2032, and accept the proposed financial guarantees, as well as delegate authority as set out in CMD 21-H9.

Thank you. This conclude CNSC staff's presentation. We are available to answer any questions that the Commission may have.

THE PRESIDENT: Thank you very much, CNSC staff, for your presentation.

We will now move to the interventions and, Marc, I will turn it over to you for a few remarks, please.

MR. LEBLANC: Merci, Madame President.

Before we start, I would like to remind intervenors appearing before the Commission today that we have allocated 10 minutes for each oral presentation, and I would appreciate your assistance in helping us maintain that schedule. Your more

detailed written submission has already been read by the Members and will be duly considered.

There will be time for questions from the Commission after each presentation, and there is no limit -- or time limit ascribed for the question period.

I will ask that once your presentation and the associated question period are over, that you leave the Zoom session. You will be able to continue following the hearing via the live webcast on the CNSC website.

Madame la Présidente?

THE PRESIDENT: Thank you. The first presentation is by the Town of Blind River, as outlined in CMDs 21-H9.5 -- I guess just that one CMD. And I understand that Mayor Sally Hagman will be presenting.

Mayor Hagman, over to you, please.

MR. LEBLANC: You are muted, Mayor Hagman.

CMD 21-H9.5

Oral presentation by the Town of Blind River

MAYOR HAGMAN: Sorry about that. I should know better. I usually facilitate meetings.

I will say again, my name is Sally Hagman, and I am the Mayor for the Corporation of the Town of Blind River.

I am pleased to be speaking at this public hearing on behalf of the Town of Blind River. My family and I moved to Blind River 30 years ago as government employees, and it was no surprise to us that Cameco Blind River operations was the major employer in the community.

From my earliest recollections, people wanted to work at Cameco, and the reasons stem from the reputation that Cameco held then and continues to hold today. This is an employer of choice. There is stability in the workforce, and those who have joined the team of Cameco employees plan to stay until their retirement.

We are fortunate to have Cameco in our

community. Over the years, Chris Astles, and now Terry Davis, have made presentations to Town Council, as well as making presentations at our public information sessions and to community groups, such as Blind River Rotary. We receive up-to-date reports on the plant's emissions testing, as well as hearing of the plant's operations.

Cameco employees benefit from knowing that their health and safety and the health and safety of the community is paramount to this employer. The fact that employers are recognized for operating safe working conditions -- (stream lost / diffusion perdue)

MR. LEBLANC: You have muted yourself against, Ms. Hagman. We lost the last two sentences.

MAYOR HAGMAN: Oh, right. I will continue -- I get so excited about talking about Cameco, I should be more careful. Yes.

So I was just saying, Cameco's employees benefit from knowing health and safety and the health and safety of the community is paramount to the employer. The fact that the employees are recognized for operating safe working conditions and

rewarded for their adherence to keeping up the safety standards bodes well for the community at large.

The fact that there is an 18-hole prestige golf course, which I encourage you all to come and check out, is right next door to the refinery, bodes well both for the public to see what Cameco is, it also bodes well for the employees to take in a round of golf after work.

Being the company with the most employees affects both primary and secondary industry in our community. Our hospital, schools, shops, and stores all benefit from having Cameco as part of the town's infrastructure. And it's not just the presence of the company. Cameco employees volunteer at our clubs, recreational areas, school and hospital boards, churches, and countless other community organizations.

During my tenure as the physician recruiter, I along with prospective physicians, were given tours of Cameco operations. The smooth running of the plant was so evident, and the wellness of the employees was equally evident in both their verbal and non-verbal communications.

And speaking of communications, the Manager, both present and past, have been excellent in informing the town, as leads in community emergency management, on all mock drills that may be taking place. There was one incident where there was a fire that wasn't close to the plant, but the community was made aware of by the manager of the operations. The situation was contained and in case residents contacted the town about smoke in the area.

A few years ago Blind River was in the running as being a place that nuclear waste management organization, or NWMO, considered for storage of nuclear waste. Our community was open to this concept thanks to Cameco and the safe record held over the years. The NWMO project gave community members an education on nuclear waste, thus heightening our appreciation of what Cameco does in refining uranium.

Cameco supports our community by having their employees assist with community projects one day each year. Examples are working on the golf course, the tennis courts, putting up wind screens, clearing brush on our Boom Camp Trails, and saving the

taxpayer dollars for other initiatives.

Cameco supports students with summer hires, in fact, providing bursaries to students going on to secondary education. They have our next generation in mind and continue to find ways in which to serve the Town of Blind River.

As I said at the beginning of my speech, growth is always wonderful to see and the continued growth of Blind River operations we hope will happen as well. Cameco and Blind River are growing together, and we hope that this will continue for many years to come.

Thank you, miigwech, merci.

THE PRESIDENT: Thank you, Mayor Hagman. I will turn the floor for questions from Panel Members and we will start with Dr. Demeter, please.

MAYOR HAGMAN: Notice the cup.

MEMBER DEMETER: Thank you, Mayor Hagman.

I wanted to get a sense of your understanding of what the extent of the mutual aid

agreements are between your town and Cameco, relative to ambulance, emergency medical services, and fire. And as a second part of that, has COVID impacted any of those abilities to respond with the mutual aid agreements?

MAYOR HAGMAN: To your point, we have a wonderful relationship with Cameco as far as emergency management goes, and, no, COVID has not affected that. We are adhering to all the safe working conditions. We are adhering to Public Health guidelines in relation to COVID.

We, the Town of Blind River, have trained emergency firefighters, and Cameco equally has helped us out. In the past, Cameco had made a donation of a fire truck to the community. And, again, we both recognize the importance of emergency management, and we appreciate the relationship that the town has with Cameco and Cameco has with the town.

MEMBER DEMETER: Okay. I just wanted to clarify one issue relative to emergency medical services. Most hospitals in Canada are a bit strained right now relative to managing COVID issues as well

as -- so relative to receiving individuals who might have workplace injuries from Cameco, do you have a medical facility that could receive and treat such individuals and is it impacted by COVID stresses?

MAYOR HAGMAN: The North Shore Health Network is our local hospital, and they are well-versed in COVID protocols, and given the excellent safety record that Cameco has had, there hasn't been an issue of employees having to go to our hospital, either pre-COVID or post-COVID. If there ever was a situation where our hospital and our ambulance services were required, there would be no issue.

The Blind River site for North Shore Health Network is within 15 minutes on a slow day driving. Everything in Blind River is five minutes away. So we would be very confident in saying there is only one stop light between Cameco and the hospital. So when you only have one stop light in your community, and it's usually green because it's Highway 17, so there would be no issue with our ambulance drivers either.

Ambulance drivers are not under the North Shore Health Unit network, they are under the Algoma District Services Administration Board, and I get their reports, being on that board. And again, no issues have come up.

MEMBER DEMETER: Okay. Thank you.

THE PRESIDENT: Thank you. Ms.

Maharaj?

MEMBER MAHARAJ: Thank you for your presentation, Mayor Hagman. I actually don't have any additional questions, Madame Velshi. Dr. Demeter has covered it for me.

THE PRESIDENT: Thank you. Mayor Hagman, maybe a couple of very quick ones from me, please.

Do you hear of any concerns from your constituency about Blind River? I know there's very, very strong support for the operations. But there is 4 percent that are not supportive, and I wondered what their concerns are and if you've heard of those.

MAYOR HAGMAN: In any population, there is always a percentage of people who are -- how

you say -- just not happy people. It doesn't matter what you do. I'm afraid that one spin-off of COVID is negativity on Facebook, and I would say there's probably 4 percent that are not happy with the Town of Blind River as well. You can please none of the people all of the time, as we all know, and so you have to take your negative comments at face value.

In my mind, I would feel so comfortable in encouraging anyone, and I have encouraged people to go and work at the Cameco operations. It is an incredible place, and it always has been. So if you're hearing negativity, take it from where it's coming from, because I'm sure -- as I say, if they were going to be talking about the town, usually people will frown and say, "They should do better." But I always want to -- when they ask these negative questions, I usually say, "And what's your solution?" And usually you get a blank look, you know? So as I say --

THE PRESIDENT: Thank you. You know, Blind River is the only host community of a nuclear facility that we haven't had a Commission proceeding

at. This was actually planned to be in person had it not been for the pandemic, so I do hope that the future proceeding we can actually do it in person within the community.

Mayor Hagman, thank you very much for your intervention today and coming to present to us. It's much appreciated. Thank you.

MAYOR HAGMAN: Thank you so much. And I hope you'll take the opportunity to come and see our community when it's safe to do so. Thank you.

THE PRESIDENT: Thank you.

Our next presentation is by Ms. Karin Pilon, on the submission filed by herself, Ms. Janice Brown, and Ms. Cindy MacDonald, as outlined in CMD 21-H9.47.

Ms. Pilon, I'll turn the floor over to you.

CMD 21-H9.47

Oral presentation by

Janice Brown, Karin Pilon and Cindy MacDonald

MS. PILON: Good morning, President Velshi and Commission Members. I'm Karin Pilon, Support Services Administrator at the Blind River Refinery. And I'm also hearing on behalf of my colleagues, Janice Brown, Radiation Safety Officer, and Cindy MacDonald, Human Resources Coordinator.

As we stated in our letter and by way of further introduction, we are currently the longest serving employees at the refinery. Janice is our longest at 39 and a half years. I turn 39 in a couple days, and Cindy in a couple months. So our combined service does total well over 100 years.

Actually, my career began in Blind River with the company that built this refinery, so I've been watching from the very beginning, from the brown field and bare steel beams or pilings to the refinery we have today.

We felt that our tenure gives us an

important perspective on the history of the refinery from its construction and start up in 1983, on what has contributed to its development and successes over the years, and what we feel is important for our future and that we should share and give that information to you.

So in addition to the data that the CNSC continually requires from our company and that our senior team has provided, we want to offer what we have witnessed and describe what we have seen, the evidence of our experience.

To do this, we discussed our observations from history at length, the previous almost 30 years to the current licensing period, or the recent or last 10 years, and what we've seen. And that is the change in these last 10 years, which is the significant development in the Blind River Refinery culture.

The benefit of that culture has been shown in the empirical data that you've received in reports and presentations from our senior team, but we offer a further explanation. Realization that every

position matters, and each position contributes, the maturity of the Blind River culture has emerged and this stability has led to employee ownership of programs both in the community and at work, resulting in both the community support statistics and environment and safety statistics that you've seen.

As we look back and compare, in this current licensing period we've had no environmental incidents and holding. Our previous safety record was just over 11 years, and now we're currently celebrating over 15 years, lost time accident-free and counting. Since the payroll deduction plan was introduced, employee have personally assisted 16 area projects. And we can report that we've just completed this year's campaign and again the employees have continued their support, the project for a local hospital this time, continuing to commit funds from their paycheques into the future.

About the last 20 years, employees have done hands-on work in the community on Cameco Cares Day. But again, that culture has developed. Now the employees arrive early for that day of

community action and their training takes over. They gather in teams, and they'll watch out for each other and automatically gather their PPE to work safely in our community. And while COVID restrictions have suspended this Community Action Day, today employees continually inquire about when this day of community action can resume.

Again, over the last 10 years we have seen that confidence and pride in our programs readily shared by the employees. The result is seeing an increase in the kids who used to hear about Cameco in schools, now working here at Cameco instead of automatically leaving the area. They attended relevant postsecondary education because of the encouragement received from the employees and our programs.

A specific example of a program is the STARS program in the schools, but the evidence is the next generation of qualified local employees that we have here, engineers, tradesmen, lab technicians and so on. And that's ongoing. The majority of our co-workers raise our families here in Blind River and

the Mississauga First Nation. But now we have employees from communities from all along the North Shore region as well, from Elliot Lake to the north, Espanola to the east, west Iron Bridge and Thessalon, and everywhere in between.

With the significant increase in training over the last 10 years, every single week there is some sort of training or safety presentation occurring. We have seen that it's now common place and expected that there's going to be thousands of hours of training done here each year. Employees realize the 10-year licence requires continuous inspections and audits, and the employees accept and expect to do their part. It's also part of the culture. It's not surprising that we now are aware in this current relicensing process that a full 25 percent of our co-workers submitted written support.

So high standards have been set, programs developed that all employees in their various areas have contributed to, and in doing so are making their jobs and the culture sustainable and more transferable to the next generation.

We can go on. But what we have realized is that these results are the evidence of the stability of the last 10 years. Employees have accepted the continual ongoing training on procedures and participate in programs both in the community and at work. They've continued to develop and taken ownership, and that's what we want to emphasize. Stability provides the culture that provides the results.

At the beginning there was initial developments, then the focus was always continual improvement. We all heard, we'll get there, let's keep trying. Now the workforce has shown we're here, we've arrived, that together we can safely make a good product.

There's been a significant growth in maturity in the culture at the Blind River Refinery, and that's not by accident. We want to stress, is that besides having great leadership, it's important to recognize that the work of the employees requires that solid foundation. They require the security to be able to plan and count on their future here.

Our message from this century of service, is that the positive Blind River Refinery culture has developed on the stability of the last 10 years. That produced the results, both the statistics and our observations have proven it. We have seen what the employees can do and can continue to do for the next 10 years and beyond.

In summary, the last 10-year licence period granted by the CNSC was a success and we strongly support relicensing again for the next 10 years.

Thank you for your time and the opportunity to share our observations.

THE PRESIDENT: Thank you, Ms. Pilon, for your presentation and submission.

Let me start with Ms. Maharaj, if you have any questions, please.

MEMBER MAHARAJ: Thank you, Madame Velshi and thank you for your presentation, Ms. Pilon.

I did find that it is remarkable that the three most long-serving employees at Cameco are all women, and I think that is an interesting

phenomenon in today's day of equity and inclusion.

I'd like to ask you a little bit more about Cameco's policies around equity, inclusion, and diversity. The representative of Cameco spoke to 25 percent of the employees being women and 17 percent self-identifying as Indigenous. How do you find Cameco's culture around equity, inclusion, and diversity?

MS. PILON: Well, we have just recently had presentations as well, and we have training and our supervision has training, and I find that it's very positive here at the refinery. We have two of our superintendents are ladies, and we have several people in our workforce who are doing non-traditional roles as well.

I am speaking of one lady in particular, who is not only a process operator, but also is on the emergency response team and definitely in non-traditional roles. I can also think of tradesmen -- excuse me, tradespeople. So I think that it's very positive.

MEMBER MAHARAJ: Fantastic. You also

spoke about a tendency -- or you noted that people in the community are satisfied with Cameco's safety and operations and tend to come back, rather than what you might see in a smaller community where young people leave. What would you attribute that returning or legacy phenomenon to?

MS. PILON: The opportunity. I think that's one of the things that my colleagues and I chatted about is, well, making them aware of the opportunity. We have very recently hired some lab technicians who went away and got the education and came back. I can think of two other positions where, through learning about the opportunity through schools and through the employees, that they know what they need to do and the opportunity is here. The stability, the opportunity is here.

MEMBER MAHARAJ: Fantastic. And there was one comment made by Mayor Hagman that also in this context drew my interest. And she mentioned that there are some scholarships available by Cameco. Can you tell me more about that scholarship program?

MS. PILON: Well, I know that locally

here, I assist the General Manager with the implementation of bursaries at the local high schools. So we provide -- we have two high schools, the French high school and English high school, and we provide bursaries there. But also, Cameco provides -- oh, and to the elementary schools too. We don't forget their graduations. But also too, there are bursaries granted from the corporate level.

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

THE PRESIDENT: Thank you.

Dr. Demeter?

MEMBER DEMETER: Thank you for your presentation and century of experience that you've presented. But I have no further questions. But thank you for your presentation.

THE PRESIDENT: Ms. Pilon, a question for you. You've talked about, we've arrived, and the maturity of the programs. How is Cameco making sure that complacency doesn't set in?

MS. PILON: Yes, that's a very good point. Personally, I think it's because we have in

our safety programs it's the repetitive, when we have our safety meetings, but we also try and have different programs. We have safety award programs. We have programs where we continually try to make them interesting and involve the employees, and I think that's where we can try and prevent complacency.

THE PRESIDENT: Thank you. Thank you very much. We very much appreciate your intervention.

MS. PILON: Oh, thank you.

THE PRESIDENT: It's always really helpful to us to hear directly from the employees and the shop floor, and you have done an excellent job in representing your co-workers today, so thank you.

MS. PILON: Thank you. Thank you very much.

THE PRESIDENT: We will now take a break for lunch, and we will resume the presentations by intervenors, and we will come back at 1 p.m. Eastern Standard Time. Thank you. We will see you shortly.

--- Upon recessing at 11:52 a.m. /

Suspension à 11 h 52

--- Upon resuming at 1:00 p.m. /

Reprise à 13 h 00

THE PRESIDENT: Good afternoon, and welcome back. We will resume with our interventions and our next presentation is by the Mississauga First Nation, as outlined in CMDs 21-H9.50, 21-H9.50A and 21-H9.50B. Ms. Mayer, I believe you are making the presentation on behalf of the Mississauga First Nation. I'll turn the floor over to you.

MS. MAYER: Good afternoon. (Ojibwe spoken)

Good afternoon, my name is Laura Mayer, I'm a member of Mississauga First Nation, and community of Chi-Naakinagewin Director which handles legal development. I attended Nipissing University and I hold a four-year bachelor's degree in Gender Equality and Social Justice, and I completed my Juris Doctor at Osgoode Hall Law School. I was called to the bar in Ontario in 2019.

My two colleagues are going to introduce themselves and will also be part of the presentation. To my right is Peyton Pitawanakwat.

MS. PITAWANAKWAT: (Ojibwe spoken)

My name is Peyton Pitawanakwat. I sit here today on behalf of Mississauga First Nation as an Environmental Technician for the MFN Land and Resources Department, as a councillor and most importantly a community member. My colleague to my right will introduce himself.

MR. NIGANOBE: (Ojibwe spoken)

My name is Brent Niganobe, Councillor for Mississauga First Nation. I hold a BA honours in Indigenous Studies with a minor in Sociology from Trent University. I also graduated with a Law and Justice degree from Sir Sanford Flemming college.

MS. MAYER: We also have Kerrie Blaise on the line. She's a lawyer from the Canadian Environmental Law Association and our legal counsel on this matter.

Just to note ahead of time, we're prepared for about a 30-minute presentation. However,

this morning we were asked by Mr. Leblanc on behalf of the Commission to condense to 25. We will try our best to meet this new requirement. However, we won't be able to speak as slowly as we would have liked for the translation. We request to have final remarks at the end of the question-and-answer period to summarize our submission.

The length of the time to prepare the submission, and engage with the community, and present today, is not proportionate to the length or the complexity of the licence requested by Cameco. Note that throughout the presentation we will be making references to the 27 recommendations in the written submission, 14 maps, and archeological and community health studies, and a supplemental which includes the voices of approximately 40 people who engaged our internal engagement session on November 4th.

To start off our presentation, I'm going to turn the floor over to my colleague Brent Niganobe to talk about the land on which Cameco Blind River Refinery rests.

MR. NIGANOBE: I would like to draw

your attention in appendix D and H in the evidence submitted. Also that I'm just addressing that there -- the statement that the land was not occupied or used. So I'm going to be drawing on historical written documents.

So I'd like to draw your attention to Champlain's very old drawing of a map of the Mississauga river dated in 1632. This historical map has a description which translates from French to "place where the savages dry raspberries and blueberries every year". The map placed the Mississaugas on the east bank.

Also, I draw your attention to the French Jesuit relations. In that they noted that the Mississaugas are named by three names, Jesuit André is quoted in the Jesuit Relationships of August 28th, 1670 as writing that these people are situated upon the river bank rich in Sturgeon. He wrote that the landing place is where their Nation has erected its cabins. So he's mentioning our settlement.

Prior to Father André, explorer Alexander Henry has written on the mouth, that noted

that the sturgeon fishing amongst the Mississaugas was the base diet during the summer months. Again, mentioned a summer settlement.

Next slide, please.

In 1710, joint superintendent of Canada noted that the Mississauga come together in the spring on the bank of the river to plant corn. He also noted, as previously had the Jesuits, that fishing was good, especially for sturgeon. He mentioned that we move seasonally and noted that the people leave their village to go inland for winter to find food and hunt.

However, he states that there are people who stay behind prior to the summer months, writing that can travel do so, but those who cannot march stay behind and live in the village.

In 1746, a settlement is shown on the east bank, this time at the Anvil map. And the same is true for the Faden historical map dated 1793.

Next slide, please.

There's two archeological surveys done in this area and they are done by Laurentian

University, where Cameco currently sits. There was one completed in 1975 and one in 1980. There's also a food archeological study completed. Those highlights are that they found a large cigar-shaped longhouse which is 70 feet by 20 feet. These lodges traditionally used by the Mississaugas for the white dog ceremony.

There's also an abundance of fire rock found and bone, bits of charcoal, chert flake which is used for spears and arrows, and those varied in size. The Eldorado road site that artifacts were found and recovered was one point projectile, 12 chert flakes, nine body sherds, three slate fragments. Of those two, one was decorated and wrapped in cord and those were dated from 800 AD to 1000 AD. And the projectile points were made from chert flake, copper beads -- native copper beads were also found, and it was guesstimated that the area had been lived -- been occupied for 1,000 years.

The following sites are also mentioned, the White Tail deer site, Cormorant, Renard, Sweet, and Moonlight Beach. And carbon

sampling from the area of the Renard site is again, 800 to 1000 BC, an indication it was probably occupied with 200 years of its emergence of the Lake Huron Basin. Pottery was also found. At Patrick Point, a stone structure was used -- was found, and this was used by the Mississauga for traditional ceremonial use.

Next slide.

Going to more of our traditional knowledge. So I would like to say that my family was signatories of the Mississauga annuity payments of 1891, so our traditional knowledge comes from that. And also our family was one of the last ones to use the river for trapping and hunting. So my tradition, my knowledge comes from Elders in my family.

Our traditional territory stretches approximately 242 square kilometres north. So during the summer months it is said amongst us, that we lived along the mouth of the Mississauga River on the north shore of Lake Huron on the east bank. The mouth of the river was an important gathering place for us traditionally during the summer. This area was used

for trading, fishing, and conducting important ceremonies.

Another frequent area was the islands on the mouth of the river that had been used for fasting, berry picking, and hunting, which is still used today. During the summer months we have planned meetings, governance meetings that would be held, and these would be done to settle disputes and issues that arose during the winter.

Some of the islands were used as controlled burns by the Mississaugas. The Mississaugas introduced rattlesnakes to the area to ensure that there was steady berry growth and vegetation. And also that -- it's mentioned on the east side of the bank that corn again was grown and also wild rice.

The fish in the river were speared or dip netted traditionally and it's still used -- still done today. Spearing usually happens at night. It as well should noted that the Robinson-Huron trading company moved beside us. Settlers often stationed themselves beside us, and this is mentioned in July

1861, in the Hudson's Bay archives and it verified the original spot.

The reserve is part of the Robinson Huron Treaty. This Treaty was signed after the Mississaugas had confronted the Queen's representative in the worst mines, who started logging and mining the area. And this treaty was signed in 1850 by Bouekeoshs. However due to encroachment we now -- the reserve has moved further north of the river.

I would just like to draw your attention to two historical traditional stories that were passed down that are hundreds of years old. And one of them is the Pink Belly Sturgeon story and also the story of the Thunder bird, and our prophecies in the Serpent Chief.

So these stories, I won't recite them, but these stories, when we tell them, and when our Elders tell them to us, and my grandfather told them to us, these stories were specifically mentioning that area and we were told to think of that area where Cameco is when we do tell those stories and hand those stories. And those storied are meant to be passed

down as prophecies when the Mississaugas will re-emerge, and those are passed down to generations.

So Miigwetch and thank you for this opportunity.

MS. MAYER: Thank you for that, Brent. Next slide, please.

If you look here, you can see some of the outlines of our surveys done to categorize some of our traditional sites and some of our sacred sites. It's a little bit drawn back from the map previously. You can see down at the south end, that's where Cameco's area is, and you can see along the riverbanks, kind of some of the documented sites in addition to our oral histories.

Next slide, please.

This map is referencing our more traditional territory. At the very south end of the map, you'll see in the light pink that's our reserve lands. Our traditional territory, as Brent mentioned, stretches 242 kilometres north, up to the arctic watershed.

Next slide, please.

As a preliminary matter, this morning during Cameco's submission we heard of the records of engagement with MFN. We would like to briefly note that it's in our submission that these more frequent discussions have been occurring since the licensing process was scheduled.

For MFN to move forward with these conversations, we do oppose a 10-year licensing term because a shorter term would allow us to more fully engage with both Cameco and CNSC, regarding the impact of Cameco's operations on MFN territory. Phone calls, emails and meetings with individuals, in our view is not a collaborative relationship.

In the interests of time, we direct Cameco and CNSC to recommendations number 3, 10, 21 and 23, which provide more detailed responses and our position on the way that Cameco can better uphold the rights of MFN and MFN's expectations for consultations.

I just want to characterize some of the ideas about no new adverse impacts. We object to the CNSC's position that the licence renewal is not

expected to cause any new adverse impacts to potential or established Indigenous and/or Treaty rights and therefore, the duty to consult does not apply.

The duty to consult is triggered when Indigenous rights may be potentially impacted. These impacts do not need to be certain; only that there is a potential for impacts. Making a new decision on an existing matter such as this renewal also triggers a duty to consult.

The CNSC framing of the duty to consult only being relevant should there be new or adverse impacts is wrong at law. The Supreme Court of Canada has recognized that the duty to consult is an ongoing obligation throughout the life cycle of projects, and in this instance the CNSC has an ongoing consultation obligation in response to any further impacts resulting from the existing licence.

We reject the arguments by decisionmakers that there is no duty to consult on the basis of the decision to have no new physical effects. It is incumbent upon being aware of the potential for impacts that the CNSC promptly communicate with MFN

and advance meaningful collaborative engagement where there is time for research, review and information sharing so that MFN can assess the benefits and risks at the time of the proposal.

If we look at recommendation number 5, that outlines that CNSC discharged this duty prior to proceeding with any decision, including this renewal that may affect MFN's constitutional and treaty rights.

We direct your attention, please, to pages number 8 and 9 of the submission that the CNSC should uphold the United Nations Declaration on the Rights of Indigenous People. UNDRIP serves as an interpretive aid for domestic laws in Canada. It is an established principle of law that human rights standards like UNDRIP be used to interpret laws passed by federal and provincial governments, and this includes the *Nuclear Safety and Control Act*.

MFN is concerned that the lack of reference to UNDRIP and free, prior and informed consent principle within the CNSC Staff Commission Member Document and its policy on Indigenous

engagement, including Regulation Doc 3.2.2 on Indigenous engagement. As we've set out in recommendations 6 and 7, we can't consent to this licence renewal.

Next slide, please.

MFN was shocked by the framing of the refinery's history by Cameco which conflicts both written and oral accounts of the site's past as a significant cultural site and has been a site of vibrant Indigenous occupation and life. When the refinery was built, there was no honouring of MFN rights and the sacred cultural significance of the site.

The Mississauga Delta where the refinery is located was MFN's traditional summering area retreat where we would harvest traditional foods to supplement our diet after spending the winter months further north. The Mississauga people recall the finding of artefacts at this site, from pottery to stone structures and headstones which were taken to museums in Ottawa.

We also recall the nearby burial

grounds on the adjacent lands, which is the present-day golf course. It is important to note that these burial mounds remain to this day.

In 2016, a delegation of youth and elders from our community travelled to Ottawa to see the artefacts, which have not yet been returned. We would like to point the Commissioners to specifically consider recommendations 1 to 3, which concerns Mississauga's inherent rights and the vital work of consultation and reconciliation.

Next slide, please.

We understand that the CNSC has a duty to protect human health and environment under the *Nuclear Safety and Control Act*. Upon review of the documentation, MFN has found that there gaps in environmental monitoring data concerning community health and wellness, in particular the public dose rate at defence lines on page 14 of our submission, which expresses that MFN has a number of concerns related to the gamma radiation dose to the public and action levels at the refinery's fence line.

First, MFN requests that CNSC have

CNSC Staff explain why the action level for the north fence of the Blind River Refinery has changed from 1.1 mSv per hour in the current licence to 0.25 mSv per hour in the proposed licence.

While we are supportive of this reduction, this is a significant change not explained in any of the licensing material.

Secondly, MFN queries why action levels are not in place for the full parameter of the fence surrounding the facility, especially as the west fence line frequently exceeded 1.0 millisieverts per hour.

MR. LEBLANC: Excuse me, Ms. Mayer.
It's Marc Leblanc speaking.

The interpreters cannot follow you, so if you need to speak a bit slower and go through your presentation, please do so.

Thank you.

MS. PITAWANAKWAT: Recommendation 13 outlines an action level for 0.25 mSv per hour should be set for all fence lines at the refinery and not just the north side, which is adjacent to a golf

course. We recognize that there is a need for a community health study before the decision on the licence can be made.

Critical to MFN's involvement in this licensing hearing is an ongoing concern communicated from community members about the health and environmental impacts from Cameco's refinery. MFN has a longstanding interest in understanding the potential risks to health and environment.

In the 1990s, MFN sought the assistance of the International Institute of Concern for Public Health, who undertook a preliminary health and environmental effects study of Cameco's refinery. This study came in response to concerns about impacts to our health after 178 kilograms of yellow cake was accidentally released from the Cameco stacks.

The report from 1991, attached in full at Appendix N, made a number of findings which are still formative today. Before any renewal is granted for the refinery, it is critical that a community health and wellness study be conducted.

We have also requested the creation of

a new Indigenous Liaison position to ensure that there must be direct involvement in environmental monitoring with the CNSC.

MFN seeks to be directly involved in the development, implementation and sharing the findings resulting from the CNSC IEMP. A distinct role must be set out for MFN with capacity funding so that we may hire an individual to oversee environmental monitoring and report back to the community.

There must also be direct involvement in environmental monitoring with Cameco. MFN recommends a new position be funded by Cameco for an Indigenous environmental liaison. We seek the opportunity to hire, train and work with an Indigenous environmental liaison from our community in order to increase the community's trust in Cameco's operation.

Without independently verified emissions data, the MFN community can only rely upon Cameco's emissions reporting. For this reason, MFN requests the opportunity to be directly involved through the creation of an Indigenous environmental

liaison position.

Next slide.

There has been no mention of climate change in the licensing documents or licence application. MFN urges the CNSC to review the licence renewal with express consideration given to climate impacts and climate resiliency. Currently neither Cameco's licence application nor CNSC Staff's CMD make any mention of climate change.

MFN remains concerned about the impact of climate events on the refinery and its infrastructure, such as the stormwater lagoon that collects surface water runoff from the site.

MFN is aware in 2015, Cameco constructed a berm outside the fence line to mitigate potential risks from flooding. This was in response to a flood risk assessment study which had identified under worst-case conditions a risk of floodwaters entering the site at a depth of 0.7 metres at the south end and 0.2 at the north.

Flood assessments, however, have generally been based on modelling with deterministic

methods that do not take into account uncertainties. When operations at the refinery end, Cameco plans on creating a long-term waste management facility at the site.

In terms of the future of the site and waste, MFN has reviewed the licensing document's consideration of decommissioning and the future of the site. We find the depth of consideration and lack of mention of MFN's role to be troubling oversights.

As Cameco's decommissioning plans are not publicly available, MFN can only rely on the CNSC Staff's framing, which reads: "Cameco has selected a prompt decommissioning strategy for BRR, including dismantling and removing the buildings and equipment from the site and remediating it back to a state familiar -- similar to its natural state."

Cameco's strategy for managing waste from decommissioning is to construct a long-term waste facility to contain the remaining contaminated soil and building level in a properly designed and secured facility occupying a small area on the site.

I would like to highlight three

particular concerns, concern one being there are only three paragraphs in the CNSC Staff's CMD which discuss decommissioning planning.

MFN submits this is not enough to satisfy section 9 of the *NSCA*, specifically the CNSC's role in preventing unreasonable risk to the environment and human health.

Concern number 2, there can be no storage nor disposal of hazardous material on our lands absent our free, prior and informed consent. As set out in article 29.2 of UNDRIP, states have an obligation to take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of Indigenous people without their free, prior and informed consent.

Concern 3, Cameco has indicated its preferred decommissioning strategy is prompt dismantling followed by the construction of a long-term waste management facility.

MFN has not and will not consent to a decommissioning approach which sees hazardous and radioactive wastes left on our ancestral lands. Given

MFN's proximity to the site and inevitable impact on Treaty rights, such a decision requires far greater involvement and commitment from both the CNSC and Cameco to seek MFN's free, prior and informed consent.

While we both understand that the CNSC approach is decommissioning as a separate licensing matter, decisions are presently being made about the suitability of decommissioning methods which will ultimately inform the decommissioning process absent our full and informed involvement. Any decisions regarding decommissioning, which should be made well in advance of actual closure, requires our early and full engagement.

We remind the CNSC that Cameco's refinery is less than one kilometre from MFN and is located on our Treaty lands.

Next slide.

Our supplemental submission summarizes our community findings. There must be fair and authentic engagement with adequate timelines to make sure community members have input. There must be acknowledgment of the historical and ongoing exclusion

of Mississauga from decisions about the site and land.

There is expressed high interest in having accurate health data inclusive of traditional foods and medicines. There must be inclusion of traditional knowledge when developing environmental studies, and there is expressed opposition of future development of new nuclear technology.

Next slide.

MS. MAYER: This slide summarizes our request from MFN to the CNSC that you deny Cameco's request for a 10-year licence renewal, that a 10-year licence length diminishes the opportunity for information sharing, direct involvement and engagement based on MFN's right to govern traditional lands.

Direct Cameco to revise its licence application, taking into account all 25 plus recommendations from MFN.

Direct Cameco to undertake cultural competency training, which includes skills-based traditional and intercultural competency, human rights and antiracism, and affirm the CNSC commitment to reconciliation, fully adopting UNDRIP and supporting

Treaty relationships based on the principles of mutual recognition and shared responsibilities.

Next slide, please.

We have completed our presentation and we welcome any questions from the Commissioners, but we would like to remind you that we would like to do one final remark at the end of the question-and-answer period.

THE PRESIDENT: Thank you very much for the presentation.

We'll open the floor for questions, and we'll start with Dr. Demeter.

MEMBER DEMETER: Thank you very much for the presentation and the abundantly comprehensive written submission with the historical aspects.

I have a number of questions, but I think I'll start with the biggest question I have. Based on staff's presentation, Cameco, a number of the other intervenors, and I'll just quote the staff presentation:

"To date, the identified
Indigenous groups have not

expressed any specific concerns with regards to the licence renewal process. Should any concerns be identified, CNSC Staff will provide additional information with regards to ongoing engagement, including any concerns expressed by Indigenous groups in a supplemental CMD."

(as read)

So I see a real disconnect between all the materials we've received relative to staff, the licensee, a lot of other intervenors, and the presentation just given and the information.

So maybe I can go around and maybe staff can help me understand this disconnect. I did not see a supplemental CMD in the packages and there seems to be a real contrast between the opinion and perspectives of staff, licensee and other intervenors and the current intervenor and their presentation and submitted information, so help me reconcile these differences.

MS. MURTHY: Kavita Murthy, for the record.

So in the past where we have received interventions, we have developed a supplemental submission in which we have dispositioned all of the interventions and the points made in the intervention. However, we wanted to have an opportunity to have a discussion with the Commission on the matters that have been raised in this and all of the other interventions, so we have moved away from providing you a full intervention -- disposition of interventions for CMDs. That, in particular, is the main reason why we decided not to submit a supplemental CMD in this case.

MEMBER DEMETER: You understand that I was quoting your current CMD, which said you would submit a supplemental CMD if there was issues raised, so I'm just quoting the current status, which did not talk about any change to your process. So I'm not talking about historical comments.

MS. MURTHY: Kavita Murthy, for the record.

Yes, you are right. I will see if one of my team members has a response for this, Dr. Demeter, but I take your point.

--- Pause

MS. MURTHY: I am sorry, Dr. Demeter, I don't have anyone who's ready to respond to this question. We'll get back to you.

Thank you

THE PRESIDENT: Ms. Murthy, there were a number of parts to Dr. Demeter's question. One was around the supplementary CMD, and that's fine. You said you'd much rather do the discussion here.

So having heard the concern around engagement or inadequacy of engagement and consultation, which was Dr. Demeter's real question, how do you reconcile staff saying, you know, things are fine, the Mississauga First Nation thinking quite differently? Help us understand the gap there.

MS. MURTHY: Thank you. Kavita Murthy, for the record.

I would like to ask Mr. Adam Levine from the Indigenous and Stakeholder Relations Division

to speak to this question, please.

MR. LEVINE: Thank you very much. My name is Adam Levine, Team Lead for Indigenous Relations and Participant Funding, for the record.

So in our initial CMD that was submitted to the Commission and the public, at the time of writing the CMD, we had conducted our initial notification and early engagement with Mississauga First Nation and all identified Indigenous Nations and communities. And at that time, we hadn't heard any specific concerns or issues with regards to the renewal. However, subsequent to that, we conducted a number of engagement sessions with Mississauga First Nation.

We had two different virtual community sessions where we answered questions about the renewal application, about the process, how to get involved, and answered all their questions and concerns and conducted follow-up as well in response to all questions raised.

During those sessions, the specific concerns outlined in Mississauga First Nation's

intervention were not identified or discussed to the length or degree that they're presented here, and so we weren't aware of those specific concerns until the intervention was received.

And our approach is to have the discussion here at the Commission proceeding to ensure that we can have that dialogue to explain our process and how we want to address the concerns of Mississauga First Nation moving forward.

We want to thank Mississauga First Nation for articulating that. We've been working with MFN for well over a decade with regards to the Blind River Refinery. We have a lot of great -- a great track record, we believe, with our engagement and relationship, and we have a lot to build off of to address these concerns moving forward.

If you'd like more information about our specific plans for addressing the concerns moving forward that are outlined, I can definitely do that.

THE PRESIDENT: We'll turn to Mississauga First Nation and then to the licensee in a moment, but we'd like to hear your perspective on the

duty to consult and do you believe that the level of engagement you've had and its sufficiency.

MR. LEVINE: Adam Levine, for the record.

So in terms of the duty to consult, it's raised when the Crown or agent of the Crown is making a decision that could cause adverse impacts to the exercise of Indigenous or treaty rights. And when looking at the application before the Commission, it's being requested to renew the ongoing operations of the Blind River Refinery and continuing the activities that it does today that it's authorized to do under our licence.

When we look at that, and as you've heard through staff's presentation, the operations are protective of the environment, they're protective of workers and the local communities, including Mississauga First Nation, who is just adjacent to the facility.

And certainly my colleagues in environmental protection can go into more details on that front, but from our assessment, the ongoing

operations will not cause any new adverse impacts to the exercise of rights and the information provided by Mississauga First Nation extremely useful and helpful, but it does not necessarily change our assessment on that front.

But regardless, we conducted our thorough engagement process as we always do. We started the process over a year ago in November 2020, notifying Mississauga First Nation and all interested Indigenous Nations and communities about the application and process and conducted a number of follow-up activities, including the opportunity to apply for PFP. And we think that the information brought forward by Mississauga First Nation is very helpful, especially information that we've never had before about their land use, historical use and current use, Indigenous knowledge and perspectives that will, I think, be really beneficial for all of us to understand and better implement moving forward together.

THE PRESIDENT: Thank you, Mr. Levine.

I'll turn to Mississauga First Nation

for your response from what you've heard from staff.

MS. MAYER: This is Laura Mayer, for the record.

I think our response would be that we were under the understanding that having this Commission meeting was actually to elicit concerns, and so that was our intent putting that submission forward, was to lay out our concerns in a concise way.

We hope that the CNSC Staff wouldn't have a preconceived notion about what they're going to hear and their opinion on the matter before hearing our submission and reading our intervention.

Regarding the duty to consult, I think that the CNSC is the agent of the Crown and so it's a duty held by the Commission and not necessarily by their agent or proponents.

I know that the law around duty to consult is always changing and altering, but we believe that the duty to consult is triggered simply under the renewal of this licence because it will be continuing to operate, and so our access to our traditional lands, and important traditional lands,

will continue to be adversely affected.

THE PRESIDENT: Thank you, Ms. Mayer.

Dr. Demeter, I'll turn back to you in a moment, but let me just ask one follow-up question to Ms. Mayer.

You know, your comment that staff should not have any preconceived notions on what intervenors are going to present, but, you know, if these engagements have been happening effectively, one would hope that there wouldn't be surprises and that those conversations have been happening over time and so it's not so much preconceived as much as being well informed about what the issues, the concerns, the aspirations are.

So from your perspective, are there any specific suggestions you have to staff for strengthening the kinds of engagement and consultation?

MS. MAYER: Yeah, I can speak to that.

I think that in the past -- MFN engages with a lot of different kinds of licensing renewals, a lot of proponents, and I often comment the

fact that we are often overloaded in terms of how much we have to consult with different groups.

I think that even having a stronger relationship with the CNSC where we are having this on the public record will strengthen further engagements moving forward in the future because I think that community members will come out because they'll feel like they're being listened to. I think that was part of the reason why there might not have been more attendance at some of those earlier engagement sessions because sometimes, especially in an Indigenous community, you feel like maybe you're saying things but you're not necessarily being taken into account. So I hope that this process and having this engagement with the CNSC will create a better dialogue moving forward.

THE PRESIDENT: Thank you.

Dr. Demeter?

MEMBER DEMETER: Just to finish this -- that's helpful. It helps me understand the context of what was presented when.

For Cameco, there's a number of

references in the documents presented about a Memorandum of Agreement with Mississauga First Nation, and I'd like to know, without knowing the particulars, the status of that memorandum and whether there's been some change in leadership on either side of the fence between Cameco or Mississauga First Nation that has led to any changes to that memorandum and your understanding of it. Is it still a productive tool for you?

MR. MOONEY: Thank you, Dr. Demeter. It's Liam Mooney, for the record.

With respect to the agreement that was signed with the Mississauga First Nation, that was signed in 2010, and we have tried to live up to the terms of that agreement, looking at mutual respect and honour as being part of the framework.

It is a very brief agreement, but overall, it does contribute to our desire to have supportive communities wherever we operate which, as we've indicated in our previous presentation, is a key value and measure of success for Cameco.

On changes that have taken place since

the agreement was signed, as we had discussed, Terry Davis is the new GM.

Chris Astles had been the GM of the Blind River facility for more than two decades before he retired in late 2020, and I understand he is presenting in his individual capacity later in the proceedings.

But overall, I think that we were surprised with this intervention. We have had formal meetings, not just during the relicensing since the relicensing request went in, but over the length of the licensing term. Many of them, as was indicated, were informal, but some of them were formalized meetings with the Band and Council -- Chief and Council to discuss issues that had been raised.

In the grand scheme of things, I think that there has been some changes of leadership within Mississauga First Nation as well, and I think that what we take out of this discussion is that there's an opportunity for us to move forward and improve the level of dialogue and transparency for our organization with the Mississauga First Nation.

MEMBER DEMETER: Thank you.

THE PRESIDENT: Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madam
Velshi.

I just wanted to close a couple of loops on this question before we move off of it.

My first question is for Mississauga First Nation. Ms. Mayer, you provided us with a supplementary filing of a community engagement meeting on November 4th. That was obviously relatively recent, and I understand that notice of this particular hearing was provided to the public, including the First Nation, in March of 2021.

So in between March of 2021 and November of this year, were there any other engagements amongst yourselves or community sessions where you may have generated reaction or response to the application that was filed by Cameco and, if so, can you point us to where that information has been communicated to Cameco or CNSC?

MS. MAYER: Hello there. I think as most organizations are dealing with right now,

COVID-19 has really limited our ability to engage with our communities, and especially because we have a lot of elders who deal with lack of ability to deal with technological issues, so in this past year we've only just been able to start meeting in person and that is really the way in which our traditional methods of decision-making happen.

So I would say that this conversation about Cameco and our relationship with Cameco has come up at pretty much every meeting that had to do with land use probably since I started at least six years ago, but I would probably say in perpetuity. It always comes up about what our relationship is and how to make it better and questions about the environmental impact when they come up at health studies. I feel like that has been attempted to be translated to Cameco.

I know -- I can only speak for myself. I was a councillor from 2017 until 2020. I attended at a meeting where a former GM had come and met with us, and we had at that time asked for independent third-party monitoring and talked about how we could

improve some of that environmental monitoring. And I don't believe that it was done or completed, and I don't know if that's our fault for not following up and putting it in writing, that we didn't submit it in that way, but it was a strong suggestion from the political leadership at that table to do that.

I think that other people could probably provide you written submissions and affidavits on the different kinds of reactions and conversations that they've had with Cameco and the different suggestions that were given, but as for myself, that's the impression that I have when I try and respond to that question.

MEMBER MAHARAJ: Thank you very much, Ms. Mayer.

So then there has been -- other than this one supplementary filing, there has been an ongoing relationship between the Mississauga First Nation and Cameco where these conversations have been occurring. Is that accurate?

MS. MAYER: I think that that's accurate. I think that the statement of working

relationship that was signed in 2010, that those formal meetings have occurred and the presentations have occurred, but I don't know if all of the suggestions were maybe written down in a formal way because, as Mr. Mooney from Cameco had mentioned, it's not necessarily a very in-depth document. It's a working document that just mandates that there be two meetings, and there's not necessarily a mandate that there is a follow-up process or a responsibility process that comes after those two meetings.

MEMBER MAHARAJ: Okay. And then I just had one final question in this arena, Madam Velshi, if I may.

We understand that when you're discussing the duty to consult there's a spectrum of depth of consultation that correlates to the intensity and the significance of the impact. It's obviously undisputed that Cameco's facility has been operating since 1983 and that the current application for extension is to continue the existing operations, and I understand that you have a position with respect to whether that continues to create an impact and whether

or not that impact may be new.

However, if you could please comment on where you feel on the spectrum of consultation to deep consultation, as it has been set out in some of the case law, this particular application would fall, that would help us understand your position a little bit better. And I see Ms. Blaise is also online, if that would help you.

MS. MAYER: I'll speak to it first and then maybe I'll turn it over to Ms. Blaise.

I think that Mississauga First Nation's perspective is that it would be deep consultation on any renewal or any licence renewal, any change in the processes that Cameco is undergoing simply because of the land upon which it rests and the proximity to the community and the impacts that it has to the community as a whole. So I think that that would be my response to that.

I will turn it over to Ms. Blaise if she has some are further comment on that.

MS. BLAISE: Thank you so much, Laura, and thank you, Commissioner Maharaj, for the question.

Just to follow up on that, the duty to consult, you're right, does have a spectrum of responses depending upon severity of effects. However, the duty to consult is triggered when there may be a potential impact. And it was in the CNSC Staff's CMD that found, I believe it was at page 75, that there wasn't going to be an impact and, therefore, the duty to consult wasn't even triggered. And so it's from that starting point that Mississauga First Nation has been raising the issue that the duty to consult hasn't been discharged, so we don't even get to the question of where along the spectrum we currently are and what that engagement, what that consultation should look like and the accommodation from that.

Thank you.

MEMBER MAHARAJ: Ms. Blaise, if I can just follow up, then, with you, understanding that the staff's position has been that there is no duty to consult because there is no new impact, I understand Mississauga First Nation takes a different view. So on that basis, the fact that the facility is

continuing to operate in the same manner as it has operated in the past 10 years, explain to me how there is a substantial enough new impact in the position of your client to trigger deep consultation because there has obviously -- as Ms. Mayer has indicated, there has been consultation throughout.

MS. BLAISE: Thank you for the follow-up question.

So again, it is the duty of the CNSC, acting as the agent for the Crown, to discharge that duty. And the Supreme Court of Canada has recognized that this is an ongoing obligation that goes throughout the life cycle of a project. So it's not just a one-off, it's not just triggered, you know, at the start of a new licensing matter, but, rather, a renewal can trigger it, the continuation of a project can continue to require ongoing consultation in this instance.

And so it's evident in this instance that further impacts will occur just by the very virtue of the licence continuing, be it operations, be it decommissioning, and in this instance for this

renewal to be granted, there will be ongoing impacts. And so it's incumbent that the CNSC satisfy themselves, as the agent of the Crown, that the duty to consult has been adequately carried out.

And in making that determination, they must -- the CNSC must make that decision in tandem with Mississauga First Nation and their protocol for consultation, which we've enclosed in full at Appendix M, and the expectations from the community about what meaningful, engaged, fair consultation looks like.

MEMBER MAHARAJ: Thank you.

Madam Velshi, I'll let others take a turn. I could probably have a detailed legal conversation with this point, but I think I have enough information for now. Thank you.

THE PRESIDENT: Thank you.

Maybe I will turn to Cameco and see if you wish to add anything to this discussion around consultation, engagement, and what you've heard. Going forward, I know you've requested a meeting after you saw the submission with the Mississauga First Nation. Anything else you wish to add or bring to our

attention?

MR. MOONEY: Thanks for the question. It's Liam Mooney for the record.

We do believe the CNSC has correctly stated the current interpretation of the duty to consult. That duty is engaged at a low threshold, whether it's contemplated Crown conduct to the licencing decision by the CNSC, potential adverse effects, and potential or established Indigenous and/or Treaty rights.

Because there are no changes being requested at the facility or to the licence terms, we agree again, that there are no new adverse impacts associated with this licensing decision. When we look at it in the context of the Federal Court of Appeal decision in *Athabasca Regional Government v. Canada* which involved a CNSC decision-making process, there the Court determined that the duty in relicensing context requires provision of notice and relevant information in a very -- the exact same relicensing circumstances that we're in.

I think that when I look at the way

the -- it's being framed, I think that what I read the staff CMD saying is that it's not expected to cause any new adverse impacts, but not necessarily that the reg doc does not apply -- sorry, that the duty to consult is not engaged. I think that in that context, there's abundant information about the consultation that has taken place by the CNSC staff in the lead up to this.

Some of the decisions that are being quoted are very distinguishable on the facts. The Taku River decision in particular, when you look at a project that had been some time, from the time it was approved to the time it was going to be conducted, we are moving from in that case nil to new physical effects. This is a renewal of a longstanding operation with no change in physical effects, operating at a fraction of regulatory limits.

So we feel quite strongly that in the circumstances CNSC staff has reached out to MFN and other First Nations in the vicinity of the operations and has carried forward the Crown's duty to consult in that regard.

THE PRESIDENT: Thank you, Mr. Mooney.

I'll turn back to Dr. Demeter, please.

MEMBER DEMETER: Thank you very much.

I'm going to move to some more technical issues.

I found it also very curious -- and it's actually interesting, it's in the Licence Condition Handbook as an action level, that understanding that the dose limit to the public will be 1 mSv, irrespective of what part of the facility you're adjacent to. But the north fence line gamma radiation action level is .25 mSv per hour and what's special about the north fence versus -- I know there's water bounding one of them, but there's non-water bounding three sides of the square.

So why is this not an action level on all three sides that bound the land? And maybe I'll start with Cameco about how they got that and then CNSC.

MR. MOONEY: It's Liam Mooney for the record. I'm going to ask Rebecca Peters to provide you some context there.

As you know, action levels are not

limits, but they are a means of potentially identifying an issue and they have been used effectively at the facility for taking steps as additional shielding or storage of materials. But Rebecca will talk a little bit about why the different action levels at different fence lines at Blind River.

MS. PETERS: Thank you Liam.

Rebecca Peters, for the record.

The north fence line at the Blind River Refinery is the only part of the fence line that the public has access to. The remaining fence lines, the west, south and east fence lines, the areas surrounding those fence lines are controlled by Cameco. They are monitored by our security, and there is not routine public access to those areas.

Therefore, it is -- the action level was set for the north fence line because of the possibility that a member of the public could spend an extended period of time adjacent to the facility along that fence line.

Action levels are set based on performance, so we do monitor the west, south, and

east fence lines, and action levels could be set at a future time for these fence lines. But they would be based on the actual monitoring data for the specific fence line receptor location. So they would not be equivalent to the north fence line. They would be based on the guidance that's set out in the CSA standard N288.8 for the setting of action levels.

One other point is that the critical receptor for the facility, so the theoretically most exposed member of the public, is set to be a member of the public who works at the golf course, which is adjacent to the facility, and is also a local resident, and that location is represented by a dosimeter at the golf course.

So we have two measurements along that north fence line, one at the fence line itself and one a little bit further away at the golf course, and that is why we've got an action level set at that north fence line only.

MEMBER DEMETER: Just to clarify. So at the other fence lines, there is no traditional activities -- hunting, gathering, trapping? Is there

a buffer zone that's not allowed between the fence line and some other further distance? When you say that, you know, there's no people there, but I'm thinking of traditional activities by the Indigenous peoples that might occur there.

MS. PETERS: Rebecca Peters for the record.

That is property owned by Cameco and it is monitored by our security. Anyone who is on those lands would have to check in with our security first, and they would likely be asked to move to another area, as that is part of the exclusion zone that was defined when the refinery was built in the 1980s.

MEMBER DEMETER: Okay. That answers my question. Thank you very much.

THE PRESIDENT: Maybe a follow-up to that. Help explain the reason for the change in the action level from a 1 to -- .2 mSv per hour.

MS. PETERS: Absolutely. Rebecca Peters for the record.

The action level was reduced -- we did

actually a review across the fence line gamma action levels across our Ontario facilities and identified that Blind River was using a slightly different method of calculation. So in order to be consistent, that method of calculation was corrected so that the reported data takes out the background from the actual placement of the dosimeter in the field. So it's really just a change in the calculation to reflect the actual dose received at that location.

THE PRESIDENT: Thank you. Ms.

Maharaj?

MEMBER MAHARAJ: Before I go ahead, Madame Velshi, I believe that the Mississauga First Nation has a hand up. It's just a little hard to see against the background.

THE PRESIDENT: Sorry. Over to you, Mississauga First Nation. Thank you, Ms. Maharaj for pointing that out.

MS. MAYER: This is Laura Mayer and this is going to be Brent Niganobe for the record. He's going to speak to the fence line issue.

MR. NIGANOBE: Yeah, I'd like to make

note on the record that we still use -- we still do fish. Some families heavily depending on that, such as netting, like I mentioned earlier, still spearing and that type. On the other side, I know that there are hunters and I know people have snared in the area. So I just wanted to make sure that it is known to Cameco that those areas are still used traditionally for food and medicines.

THE PRESIDENT: Thank you.

Ms. Peters, do you want to comment on that? Because I thought you said that they would have to check with your security before they even accessed those areas.

MS. PETERS: Rebecca Peters for the record.

Yes, that property is owned by Cameco. I do understand there is fishing that occurs along the river, but that is further from the fence line of the facility, and with radiation dose, it decreases with time, distance, and shielding. So the measurements that we do are based on someone actually being exposed at the fence line, with a setback further from the

fence line the dose would be even lower. And all of that is accounted for in our derived release limit documentation, which is how we determine what the appropriate levels are for the fence line.

So those receptors are assessed, although we do request that people on our property do check in with us prior to using that property.

THE PRESIDENT: Thank you.

Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madame Velshi.

I would like to ask some questions around the environmental monitoring and the information that we received from Mississauga First Nation that they would like to see more involvement in an independent environmental monitoring program.

So my question is first to staff. When I reviewed the submissions, I understand there already is an independent environmental monitoring program in place. So could you help me understand where the gap is between what is currently in effect for independent -- and by that I understand that's

third party -- environmental monitoring, and the request from Mississauga First Nation for independent environmental monitoring?

MS. MURTHY: Kavita Murthy for the record. So first I'll let Kiza Sauvé from the Health Sciences and Environmental Compliance Division speak to the design of the IEMP and how the monitoring is done. And I believe the second part of the question was related to the involvement of Mississauga First Nation in environmental monitoring. So for that either Kiza, or following that Adam Levine can add, and I can close off if interesting anything left.

Please go ahead, Kiza.

MS. SAUVÉ: Thank you. Kiza Sauvé, I'm the Director of Health Science at Environmental Compliance Division. So the independent environmental monitoring program and Mississauga First Nation has quite a history, in that we've done sampling in 2013, '14, 2017, 2018, and 2020.

When we design the program, we're looking at the releases from the facility, we're looking at where the land is used, we're looking at

publicly accessible areas, areas that are used by Mississauga First Nation, and other Indigenous Nations and communities in the area.

In the earlier days of independent environmental monitoring program, we did not have very much engagement. We did have a situation where we were hoping to do some sampling on Mississauga First Nation lands, but unfortunately it was a situation where we couldn't access their lands, and then the following year we made a mistake and didn't access their lands, because we hadn't the previous years. We repeated the sampling plan that had been done in 2013 in 2014.

Recognizing that error, moving forward in 2015 and '16, we had discussions with Mississauga First Nation about independent environmental monitoring and the performance of the Blind River Refinery. And then with their inputs into the 2017 plan, locations on their lands were added, air, soil, and water. And in fact, Peyton joined the team to go out sampling in 2017 and 2018, and in fact in 2020 Peyton was an extremely important part of the team,

because due to the pandemic, we couldn't send as many samplers up, so Peyton joined the team to help even with safety aspects of joining our field technicians.

We continue to talk about where we should be sampling. As an example, we have an air monitoring station during IEMP at the nursery, or daycare on site, because that's an important location, of course. And moving forward we just want to keep talking about, you know, should our locations be changed? Should we add places? We've added locations upstream based on requests from Mississauga First Nation. We're also looking at adding food, if necessary, if that's something that they're interested in.

But in terms of that third party, or outside of the CNSC monitoring, those are the discussions that I guess we need to hear more about. That's not something that we can do ourselves, obviously, but we want to hear more about that.

MS. MURTHY: Kavita Murthy for the record.

So before I pass it on to Adam, I know

Kiza, the IEMP team, once the IEMP results are published, also holds sessions too with the communities to explain the results. And so perhaps maybe perhaps you could touch on those?

MS. SAUVÉ: Sure. Kiza Sauvé for the record.

So we haven't done a great job of explaining the results. I'm going to be humble on that. In that, we often come and do the sampling, and then we sometimes send a report, or we say here's the information on the website. In speaking with another Indigenous Nation, we have now prepared -- we call it a rack or a brochure card, where it's a quick snapshot of where we sampled, what we sampled, and what the results indicate.

So that's kind of part of the program that we're working a little bit further on, is it's important to go back and explain what our results are, and hopefully that will help with the communication aspect as well.

MS. MURTHY: Thank you, Kiza. So I do take note of that, and I see that Adam is also online.

So Adam Levine if you would like to add something, go ahead.

MR. LEVINE: So just to add, I guess more -- Adam Levine for the record.

More so for the forward-looking, what we're going to be wanting to do with the Mississauga First Nation going forward. That we're obviously fully committed to the relationship. We've been engaging with Mississauga First Nation on an annual basis or more when we can, especially around the IEMP. This is such an important area for us to collaborate on and we've learned a lot from them over the years and definitely have more areas to improve.

So Mississauga First Nation through their intervention and their discussions today, have provided a lot of great data and information about their traditional land use, valued components and history and culture. So I think we want to get back to discussions with them about how we better reflect that information in our monitoring, in our oversight work in general moving forward.

So I think there's a lot of great

areas for improvements, working together on that, and they have really helped us improve our engagement on this front with many Nations and communities we work with across the country. So I want to thank them for that, and we definitely want to improve upon the great work you've been doing so far.

Thank you and miigwech.

MEMBER MAHARAJ: Madame Velshi?

THE PRESIDENT: Yes, please go ahead, Ms. Maharaj.

MEMBER MAHARAJ: I'm still a little confused. When we talk about the IEMP, I understand that to be independent. So is it -- is the IEMP a program run by the staff?

MS. SAUVÉ: Kiza Sauvé for the record. I'll answer that directly.

Yes, the independent environmental monitoring program is a CNSC program. We are independent of the industry. We sample in publicly accessible areas around the facilities we regulate.

MEMBER MAHARAJ: Okay. Now, the Mississauga First Nation has sought more involvement

in that program, and they've said today that they would like there to be more consideration of a position. And Ms. Sauv , you've indicated that -- I'm sorry, I've got to grab your name properly -- forgive me, Peyton, I remember your first name, but not your last. So please, no disrespect intended, but that Peyton had participated and been very helpful.

Is that participation formal or was that -- is that part of the design, that somebody from the First Nation, from Mississauga First Nation, participates with you, or was that incidental because of COVID?

THE PRESIDENT: Let's ask Mississauga First Nation to respond first.

MEMBER MAHARAJ: Please.

MS. PITAWANAKWAT: Hello, Peyton Pitawanakwat for the record.

And I would like to say that my involvement with the program constituted me chauffeuring the individuals to the sites to ensure that our community was aware of their presence, and that was basically the extent of my participation in

the IEMP.

MEMBER MAHARAJ: Perhaps staff could add to that. Participation as a chauffeur is one thing. Participation in design is a separate issue for me, it's a separate question.

MS. SAUVÉ: Thanks. Kiza Sauvé for the record.

In the discussions leading up to the sampling, the locations that we chose to sample at was determined based on discussions with Mississauga First Nation. It could be that it might not have been Ms. Pitawanakwat that was doing those discussions, but there was also -- those discussions did definitely happen. That's why we added the location at the nursery. It's why we added the location further upstream. We also wouldn't be on site without them being aware of us there.

My understanding -- I wasn't at the sampling -- but I'm speaking with the field tech right now in that there's lots of discussions and conversations that happened during that time. So the design hasn't changed a lot in the last couple years

of the sampling. We've kind of been doing the same locations for the last three or four times. So that might be a time to relook at where we're sampling. That might be a good opportunity for us to engage again on those locations.

The other piece I would add -- you asked about COVID versus not, and, no, we've been -- there has been somebody from Mississauga First Nation with our team since 2016. And again, as Peyton mentioned, partially because we don't want to be on their lands without them there.

The other piece I would add is when we started independent environmental monitoring, we thought our engagement would be more on just discussions of the sampling. And moving forward, at most places that we sample, we are including participants from Indigenous Nations and communities, either to watch and have conversations, or to teach us more about the species that we're sampling. Because we're trying to sample more medicinal plants and food. So the engagement and participation of Indigenous Nations and communities is just becoming more and more

every year.

MEMBER MAHARAJ: Thank you very much.

THE PRESIDENT: Thank you.

Dr. Demeter, and in the interests of time, if you can pick a question directed at the Mississauga First Nation, we'll get to the other questions later on today. So over to you.

MEMBER DEMETER: Actually, I'll leave my question until later. It deals with environmental monitoring and technical issues, so I'll leave it until later.

THE PRESIDENT: Thank you.

Ms. Maharaj?

MEMBER MAHARAJ: I did have a question about the position on decommissioning for the Mississauga First Nation, and I just wanted some clarification with respect to their expectations. Because the application in front of the Commission today is for an extension of the operating licence, but the information provided by Ms. Mayer is that there has been insufficient information in a sufficient time ahead of decommissioning.

But I would like to understand from the First Nation, what additional information are you looking for about decommissioning at this point in time? Is there something specific, or is it a general concern?

MS. MAYER: Hi. This is Laura Mayer for the record.

I think that our duty as Anishinaabe People is to always consider the Seven Generations. So we don't think in terms of 10-year licences. We're thinking seven generations down the line, which is around 250 years. So in any decisions that we're making and recommendations that we're making to the community, we have to consider what that land is going to look like in 250 years.

So when we look at this, we have to understand, what is the decommissioning going to look like? We know that that plan is not necessarily public record because of national security issues, is my understanding of it. So we don't know other than that little paragraph about what the decommissioning plan is for the Cameco site, if that makes sense. I

might leave it over to Kerrie if she has any other comments on that.

THE PRESIDENT: I guess she doesn't. But we will be discussing the decommissioning issue later on, in any case, because there are some other aspects of it that I know the Commission will want to get greater insights on.

Similarly, Ms. Mayer, I just wanted to let you know that some of the other issues that you have raised have been raised by other intervenors, so we will get to them later on. I just want to make sure that other intervenors who have planned on appearing in front of us at a certain time, that we respect their schedules as well.

So per your request, I will ask you for your closing remarks that you wanted to make, and so I'll turn it over to you, Ms. Mayer.

MS. MAYER: Thank you again. This is Laura Mayer, for the record.

We hope that this submission draws attention to the inherent Treaty rights of Mississauga First Nation, especially in light of the ongoing

Robinson-Huron annuities claim, which outlines the right of Mississauga First Nation to share in the development of our Treaty lands.

It is our duty as Anishinaabe people to consider the seven generations before and the seven generations yet to come, and it is our intention to have our concerns registered in the Canadian public record.

We recognize that CNSC has a duty to protect human health and environment under the *Nuclear Safety and Control Act*. To meet these two obligations, we do want to have an expanded environmental program and the duty to consult and accommodate is not met by simply referring to the standard clause language.

The Crown must demonstrate its understanding of the affected Aboriginal group's concern and must substantially accommodate these concerns.

We look forward to meeting with Cameco and the CNSC to meet with us to re-establish our relationship in the spirit of reconciliation and in

the United Nations Declaration on the Rights of
Indigenous Peoples.

Miigwech.

THE PRESIDENT: Miigwech. And thank
you so much for your presentation, your submission and
your appearance in front of the Commission today.
Thank you.

Our next presentation is from Mr.
Stephane Lemieux.

Mr. Lemieux, I wondered if you would
be all right if we allowed Bruce Power to go next
because I know they've got some scheduling
constraints. Are you all right with that? Mr.
Lemieux?

MR. LEMIEUX: Yes. Yes, that's fine.

THE PRESIDENT: Thank you so much.

Why don't we move to Bruce Power's
presentation, at outlined in CMD 21-H9.41.

And Mr. Scongack, I'll turn the floor
over to you.

CMD 21-H9.41

Oral presentation by Bruce Power

MR. SCONGACK: Thank you very much, Madam President. Thank you, Mr. Lemieux, for accommodating the schedule.

Unfortunately, I have a celebration of life this afternoon to attend, so I really appreciate you accommodating that.

Just before I provide remarks on behalf of Bruce Power in support of this licence renewal application, I'd like to recognize and acknowledge the fact that I am presenting today from the Bruce Power site, which is located on the traditional territories of the Saugeen Ojibwe Nation and the traditional harvesting territories of the historic Saugeen Métis and the Métis Nation of Ontario.

I will take the intervention as read, but there's a few comments I would like to highlight from a Bruce Power perspective in support of the proposed licence renewal of Cameco's Blind River

Refinery.

As many of you know, Cameco is a fuel provider for Bruce Power. They have -- one of the largest commercial arrangements that we have as an organization is between Bruce Power and Cameco. As a result of that and as a result of our commitment to excellence and strong partnerships, we have a high degree of confidence in the demonstrated track record and the expected future performance of Cameco in three key areas: safety first, environment, and community.

I want to spend a few minutes and talk about all three of those elements as noted in their licence application.

The first is from a safety perspective. As noted, Cameco has continued to demonstrate protection of the public, the environment, communities and employees, and I would note that their industrial safety performance is one that we are all envious of and want to continue to aspire to, having operated their facility for 14 years without a lost-time injury.

And being an organization like Bruce

Power is where we have safety first as our number one value, I can tell you that kind of industrial safety performance, while it's something you never take for granted, that is outstanding performance and it really is a strong indication of the kind of safety culture they have in the organization but, of course, that's something we never take for granted, and also their commitment to the environment and radiological protection and by adopting the principles that we do throughout the industry of ALARA, as low as reasonably achievable.

We would also note from an environmental safety pillar that the completion of an environmental protection review that concluded that Cameco has a negligible impact on the environment and, as referenced, and we have an independent environmental monitoring plan out of Bruce site that is led by the Canadian Nuclear Safety Commission, which has also verified this. Again, knowing Cameco, knowing their strong safety culture, despite the fact that they have a negligible impact on the environment, I know and I can attest firsthand that it's an

organization that will continue to work to improve that performance and always do better.

From a community perspective, they are a community-minded company both across Canada, but in particular as it relates to the site. And I would note recent public opinion polling that concluded 97 percent support for continued operations of the facility.

One of the areas that I most admire when it comes to Cameco's community engagement is the leadership that they provide not only in northern Saskatchewan but across the country, being a leading organization when it comes to progressive Aboriginal relations. The work that they have done in employment, community engagement, business development, creation of Indigenous-led businesses -- I can tell you one Indigenous-led business that we have worked with Cameco on and brought that Indigenous-led business to our facility here in Ontario is a real testament to the work that they do to not only engage the community but create that mutual benefit and that longer-term partnership

within communities. They have a track record and are qualified to operate the facility.

And what I would say in closing is the work that they do at this facility, the work that Cameco broadly does to provide us the fuel we need for our facilities, it's an absolutely essential component to a net zero Canada. We can't achieve net zero as a country in Canada and as a province like Ontario without the critical role that our nuclear fleet plays. And of course, when it comes to the purview of the CNSC, the CNSC has a responsibility to ensure that the activities on our site and all nuclear licensees are carried out in accordance with not only regulations, but some of the highest standards, and I think Cameco has continued to demonstrate that and I have no doubt that with an approved 10-year licence they will continue to drive to excellence and continue to demonstrate that strong performance.

So with that, I'll wrap up my conclusions. I'd be happy to take any questions from Members of the Commission. Thank you very much for the opportunity today.

MR. LEBLANC: President Velshi may have difficulty with the unmute button.

Ms. Velshi, if you'll allow me, I'll ask if the Members have questions. Here you are.

THE PRESIDENT: Sorry about that.

Dr. Demeter, any questions from you?

MEMBER DEMETER: Thank you for the intervention.

One sort of short question. This community support poll has been mentioned a couple times in different interventions and I wanted to ask Cameco whether that public poll included Indigenous Nations and peoples as well as sort of the town workers. What was the extent of that poll and who did it include?

MR. MOONEY: It's Liam Mooney, for the record.

The poll itself is of the broader community. I can say that we are working to ensure that there is adequate representation of the Mississauga First Nation as our nearest neighbour. The structure that was taken doesn't give us

visibility on who answered. It's anonymous in the polling context. So we're taking steps with our independent polling expert is to try and ensure that there is a sample size that's specifically tied to the Mississauga First Nation.

So we don't know for sure in the previous polling results, but we are taking steps to improve the polling result -- the methodology of the polling going forward.

MEMBER DEMETER: So the methodology as it was for this poll included the possibility of a member of MMF answering the poll. You can't see who answered it, but it wasn't that they were excluded from being a possible participant.

MR. MOONEY: That's correct. It wasn't exclusive, but it wasn't targeted, necessarily. So that's something that was flagged to us that we need to improve. And as Mr. Clark talked about, you know, we're in this -- we have been doing this for a long time and continual improvement is part of that.

So the polling methodology has become more sophisticated over the years and your ability to

work with that within that framework, I think, has as well. And I think we've grown over the years that we've done this polling over many years. Suffice to say, I think we take some level of confidence that that support isn't just a one-year snapshot. It's consistently been extremely high in the Blind River area.

So even if the sample didn't necessarily target a particular Mississauga First Nation, for example, I think that over the years it has been conducted, those numbers that there would be.

MEMBER DEMETER: Thank you.

THE PRESIDENT: Thank you.

Ms. Maharaj?

MEMBER MAHARAJ: I have no questions for this intervenor, Madam Velshi, thank you.

THE PRESIDENT: Thank you again, Mr. Scongack, for your intervention and appearing in front of the Commission.

So we'll now get back to Mr. Stephane Lemieux and to your presentation as outlined in CMD 21-H9.6.

Mr. Lemieux, over to you, please.

CMD 21-H9.6

Oral presentation by Stephane Lemieux

MR. LEMIEUX: Bonjour, Madame la présidente et les membres de la commission. Good afternoon, President and Commission Members. I am Stephane Lemieux. I am the NDE technician at the Cameco Blind River Refinery.

I'll present today in English out of respect for my colleagues, but I was really happy to know that I had the opportunity to present it in French, so merci.

Talk about my career started at Cameco Blind River as a labourer in Sample and Feed in 2004, and shortly after I worked as a process operator for 15 years. This was shift work in the heart of the plant, and here I learnt all the process operations and control room operations during that time.

This is where I learnt the importance of safety, the environment, quality assurance and the

continual improvement of these values. Now my new role as an NDE technician allows me to enhance these values and support the maintenance, engineering, and reliability departments.

So what motivated this change in my career was partly the fact that I wanted more of a work/life balance. Getting off shift work was definitely a big motivator, and the fact that I had the opportunity to play a bigger role in safety and the environment.

I'd like to share how Cameco helped me get there by paying my way through school to become an NDE technician, all while keeping me on the payroll. This allowed me to support my family, spend quality time with them, and all while going to school. You know, without this support, the opportunity to better my education and secure this position would not have been possible. And this changed my life.

The reason I bring this point up today is because my dad returned to school to get his teacher's certificate when I was in my mid teens and travelling to and from night classes for four years on

his own money, you know, and time is precious these days. This shows me that Cameco's committed to the well-being and the work/life balance of their employees and allowed me to have this time.

Also, the Cameco STARS award program. You know, it's in all the schools in Blind River and the surrounding areas. My children, they were proud to come home about these awards when they were little and even share with their friends, you know, that "My father works at Cameco".

So Cameco supported my children's sports teams, their academic programs. You know, they provided school bursaries for my daughter who's currently in her second year university, and she's doing well, you know.

And it has had an impact on my son's career path. He just applied to a four-year environmental science program at Ottawa U.

You know, I believe this influence stems back to the Cameco STAR days. This also shows me that Cameco is committed to our future generations.

As you're aware, you know, from the

previous testimonies, Cameco celebrated 15 years without a lost-time injury this year. No environmental accidents or incidents during the 10-year current licence period also. This is something we pride ourselves on.

The environment's important to me. You know, I'm an avid outdoorsman. I fish and I spend time on the Mississauga River and the north shores of Lake Huron, and I'm always glad to point out the refinery to my friends or family when I'm out there fishing on the river. It makes for a good conversation and it gives me the opportunity to share Cameco's commitment to the environment.

Also, I'm grateful for you, the regulatory agencies. You know, you work with companies to create these strong, safe and healthy work cultures that we have today. This ensures that I have a safe and healthy work environment to come to every day.

In closing, I just want to say with confidence that in the past 17 years, I've witnessed Cameco is dedicated to the safety and well-being of

its employees, has a very strong commitment to the environment, and is committed to supporting our local communities and our future generations. Therefore, I encourage the Commission to renew Cameco's Blind River Refinery's 10-year operating licence. And thank you for allowing me to share today.

Merci.

THE PRESIDENT: Merci pour votre présentation, M. Lemieux.

Let's ask Ms. Maharaj if you've got any questions.

MEMBER MAHARAJ: No, I don't, Madam Velshi.

Mr. Lemieux, thank you very much for your very heartfelt and authentic presentation. We can tell that you're a dedicated employee and that your sentiments are true and genuine.

So thank you so much for coming. It's important for us to hear from people who are actually involved at the ground level.

THE PRESIDENT: Thank you.

Dr. Demeter?

MEMBER DEMETER: Thank you as well for sharing your personal experience and your family experience. I think it is important for us to hear from individuals who work in the industry what their experience has been, as well as hearing all the technical information.

So I don't have any specific questions, but I wanted to thank you for sharing your story.

THE PRESIDENT: Thank you.

Again, Mr. Lemieux, thank you very much. Thank you also for accommodating our previous presenter. We very much appreciate your appearing in front of us today. Thank you.

MR. LEMIEUX: Merci, Madame.

THE PRESIDENT: Our next presentation is by Joan Morningstar and Miss Sarah Gabrielle Baron as outlined in CMDs 21-H9.43 and 21-H9.43A.

I'll turn the floor over you.

CMD 21-H9.43/21-H9.43A

Oral presentation by

Sarah Gabrielle Baron and Joan Morningstar

MS. MORNINGSTAR: Thank you. I'm Joan Morningstar and I'm from Mississauga First Nation.

You have to excuse my language because I had cancer and it attacked all my fine and gross motor skills along with my talking and walking. So I would like --

MS. BARON: Next slide.

MS. MORNINGSTAR: In the late summer of -- I mean in the late summer of the early '80s, I was hired to clean trailers used for the buckhouses for the men at the Eldorado site. I was the only person from Mississauga First Nation working there.

I was laid off and I didn't know why until I was called back to work two weeks later. During that week when I returned, I was cleaning the last room when I heard music.

I checked all the rooms to see if a radio was on. There was no radio on. I went back to

the room where I was cleaning, I sat on the bed and I started to listen to the music. First I could hear faint drumming, then faint voices of men, women, and children wailing.

The drumming and voices became louder. The wailing and drumming swirled above me and filled the room. Their grief and sorrow brought tears to my eyes.

That evening I went to talk to my mother-in-law. I told her what I experienced.

She stated that we disturbed something there. She said they probably disturbed the burial ground. She instructed me to go back to work and ask around.

At work the next day at lunch, I sat down with my friend and asked her again what happened when they laid me off.

She looked all around to make sure there was no one near us. She looked at me and looked down. She said, "We were told not to tell you. The boss said we would get fired if we said anything to you".

She looked at me and said in a quiet voice, "They dug up a burial ground".

My friend said they had archaeologists in and a big spotlight hooked up at that excavation area 24/7. She said the helicopters came in to take away the burial remains out. She looked in the direction of the dig. I thanked her.

That evening I sat with my mother-in-law and told my mother-in-law about the burial ground they dug up and took our people and their sacred items, what you call artefacts.

My mother-in-law gave me instructions to make an offering of food and tobacco. She said to go out to the excavation site and make the offerings and talk to them.

That weekend my husband and I went by Mississauga River on the canoe. We parked the canoe where the burial ground was.

We climbed the bank. We walked to the treeline and entered.

Once in there, we could see the depressions around each rectangle. I stood at some of

them, of the excavation digs, and thanked my people for reaching out to me.

When it got too much for me to comprehend, I sat down by a tree and started to cry. These archaeologists don't know the sacredness of what they stole from us. Again I could hear the drums and the wailing of men, women and children.

Once we were done, I returned to talk to my mother-in-law. My mother-in-law told me to find our people and bring them and their sacred items home.

It has been a long journey of searching for my people. She, my mother-in-law, is 98 years old now. I hope that I can fulfil her wishes and bring our people home.

My final thought is, my question to the Creator was and still is, why was Mississauga First Nation not made aware of the burial ground and the removal of our people?

Miigwech.

MS. BARON: Thank you, Joan.

I'd like everyone, if they can, to close your eyes and think about where a loved one is

buried or maybe think about one of the World War I or World War II memorial sites. Hope you're doing what Joan has to live with every day since the early '80s.

Now imagine that an invading force comes in and rips your ancestors' bodies out of the ground and you don't know where they're taken or destroys those World War I or World War II memorials. That's what's happened here.

Next slide, please.

Everything I'm going to tell you has come from Joan. It is a collaboration between Joan and myself.

The United Nations Declaration on the Rights of Indigenous people is now law, and it empowers Joan and others like her to demand that the Cameco Corporation site be shut down, that this licence not be renewed.

There are other legal documents in our deposition -- in our written intervention, things like the Royal Proclamation of 1763, the Silver Chain Covenant Belt, which is also known as the Treaty at Niagara Wampum, the Queen's Bargain, which was a

long-suppressed document Joan told me about, from Queen Victoria.

These all recognize Indigenous Nations as nations and, therefore, they empower Joan to call for this to be shut down. We respect that the Mississauga Nation Band Council operating under the racist *Canadian Constitution* and the *Indian Act* has also called for it, but Joan is operating as an Indigenous woman, as a traditional knowledge-keeper.

Statements calling for a moratorium on new developments of the nuclear industry exist from the Anishinabek First Nation, The Assembly of First Nations in 2018, the Wolastoq First Nation, and the Iroquois confederacy of the Haudenosaunee Nation. And by ignoring those calls for a moratorium on all new nuclear development, including the renewal of this licence, the Canadian Nuclear Safety Commission is now breaking national and international law.

Beyond that, there are multiple statements, and Joan's entire lifetime of traditional teachings and knowledge, that empower her to be a protector of the life and natural systems all around

her, and those documents are also in our written statement.

Next slide, please.

The Canadian Nuclear Safety Commission and Cameco continually test for air, soil and water and they always say that it's "within allowable limits". And we are here to tell you that there is no safe amount of exposure to uranium or any of its by-products.

Joan is suffering from cancer, and she can talk to you all day long about cancers in her community, and she is very deeply concerned about poisoning and duress on the living beings in her community, above and beyond just the humans that are suffering.

Next slide, please.

Health Canada has no important role in ensuring human safety. Again, the Cameco and the Canadian Nuclear Safety Commission always say that the soil, air, and water testing are within allowable limits. However, all you need is a grade 9 basic science class to tell you that bioaccumulation of

toxins is the most direct, long-lasting, and deadly impact on all life forms in any ecosystems.

Canadians in any area impacted by the nuclear fuel chain should demand the empowerment of Health Canada as a regulatory body over the Canadian Nuclear Safety Commission, and we must have never-ending studies on bioaccumulation of uranium and all of its by-products associated -- of associated industrial waste in humans and all life forms, at all communities impacted, including Ottawa.

Joan is demanding this for her community and a halt to the Blind River Refinery and incinerator until this condition is met.

Next slide, please.

The Cameco and the Canadian Nuclear Safety Commission are basically lying about the increased amount of production that's going to happen. We know that the Liberal government is all-in on small modular nuclear reactors. We know that small modular nuclear reactors are being pushed around the world. We know that the quota for Blind River Refinery is set artificially high. Therefore, they should be

providing a business plan that takes into account the definite increase in production, and that is not happening.

The entire nature of the original agreement between Blind River Refinery, Cameco, and Mississauga First Nation is no longer valid. We need a full stop to this agreement and a brand new one started.

Next slide, please.

From the title, right down to everything that's happened today, they are hiding the fact that an incinerator is a part of this relicensing application. It's being hidden that an incinerator exists here. The Canadian Nuclear Safety Commission openly admits that it has no jurisdiction over nuclear waste. Therefore, who is regulating this incinerator?

Joan's community is impacted by these airborne toxins. When uranium is burned, it becomes ceramic uranium, which is a known deadly carcinogen. It causes lung cancer, which Joan is suffering from right now. The incinerator must be shut down permanently and immediately.

Next slide, please.

There are other indicators of racism in the Cameco and Canadian Nuclear Safety Commission relationship with Mississaugi. Going right back to the early '80s, Joan was a representative of the Elders' interest and their traditional ecological knowledge. She says that they were telling Eldorado at the time that the water table goes in a circle and that was not a good place to be putting this because it would contaminate the community.

Those elders were never listened to. They were locked out of the band office when the signing occurred. There were lots of rumours, Joan says in her community, that the band members at the time were being bribed and were receiving bribes. That needs an investigation, and the truth needs to come out before anything proceeds.

Joan has indicated a racist double standard, and you can see in her written submission that she was hired by the band in 2015, and she did a really great job looking at the safety measures that the company had for Blind River, and that none of

those safety measures were in place for the reserve. And she doesn't feel that those issues have been resolved in the past seven years.

This is not in our written statement. Joan has just started researching this. But there was a last minute change of the location in the early '80s, away from the settler town of Blind River and closer to the Mississaugi First Nation, and Joan is pretty sure that there is not proper environmental impact assessment on this new location.

Next slide, please.

There are other indicators of racism in the Cameco and Canadian Nuclear Safety Commission relationship. Things like they say a mail-out happened. In October we learned that apparently a mail-out happened. But Joan and her neighbours have no recollection of receiving this mail-out. A failure in the October meeting to name the Mississaugi First Nation, noting that Blind River is five kilometres away, but failing to notice that the Mississaugi reserve is a kilometre away. And clearly trying to whitewash this relationship when we've seen today that

this relationship is broken.

Next slide, please.

The Canadian Nuclear Safety Commission is a "captured" regulator. In, I think it was 2018, the Canadian Environmental Law Association and Greenpeace did a freedom of information search that showed that the Canadian Nuclear Safety Commission lobbied to have small modular nuclear reactors exempt from an environmental impact assessment, and they are. Canadians knew -- if Canadians knew that our nuclear regulatory body had done this, if Canadians knew that small modular reactors were exempt from environmental impact assessments, they would be aware that this regulator is captured and cannot be trusted to regulate on our behalf.

We are calling for a moratorium on all new nuclear developments, and more than 70 non-profit groups around the country have signed a similar letter in calling for a moratorium on all new nuclear developments. We would like to see an arms-length inquiry that can be completed, and a proper citizen-led body instituted to regulate the nuclear

industry.

With all due respect, you are a captured industry, and you are working on behalf of the industry, not on behalf of Canadians.

So next slide, please.

And you can see that under the *Freedom of Information Act* at the end of our written submission.

As empowered by the Indigenous law, Anishinabek Nation law, Canadian law and international law, Joan Morningstar is calling for an immediate shutdown of the Blind River Refinery and incinerator. Bones and artifacts of her ancestors were stolen and have never been returned. You are lying when you say they are in Ottawa and those are just fragments. There is much more to that story that needs to come to light.

There is a long history of current experiences of racist double standard on the safety protocols on the settler community of Blind River and Mississaugi First Nation. There are allegations of bribes during the initial negotiations, and we see

evidence of bribes and tactics even continuing today.

If the communities are not -- do not feel like that they can adequately talk about what's happening here because they are bought off by all the wonderful gifts that are given to them. There is inadequate testing of the groundwater. We believe that there is lying about the increase in production, because of the SMR push nationally and globally.

Health Canada has no jurisdiction over the Canadian Nuclear Safety Commission, and it must, to test for bioaccumulation of toxins in the humans and in the life. High rates of cancers among the Mississauga First Nation and sicknesses in the surrounding life forms.

There is inadequate regulatory oversight and reporting on this incinerator, its activities and its effects. There is no national or provincial plan for existing waste. Waste languishes at the Blind River Refinery location. They openly admit that there is no plan for this waste, and shipping it down to the United States where we don't know how it's being used is not okay. We need to take

responsibility for our own waste. It's not okay to continue making waste when we have no plan for the waste that we have.

The United Nations Declaration on the Rights of Indigenous People law requires that First Nations' multiple calls for a moratorium on new nuclear be respected, and that includes new developments at Blind River Refinery.

Next slide, please.

This agreement is no longer valid. The original licence for Blind River Refinery, including the incinerator, did not include the incinerator, and it was only for 12 years. It's been reviewed twice already. Therefore, the original agreement between Blind River Refinery and Mississauga First Nation must be formally renewed.

In light of the community's high rate of terrible cancers, it is not likely that this licence will ever be renewed if it was given that chance to have proper consultation starting again, starting fresh.

We're asking you to please visit "Say

no to Cameco" on Facebook to stay informed. We're quite sure this captured regulator will approve the Cameco renewal licence. This location refines 80 percent of the world's uranium yellowcake. Civil disobedience will be required to get it shut down. We are asking for solidarity with other First Nations organizations and non-Indigenous organizations.

Thank you.

THE PRESIDENT: Thank you, Ms. Baron and Ms. Morningstar. I actually don't even know how to respond when you conclude by saying don't trust this Panel that is going to be making the regulatory decision, and you believe this whole process is a waste of your time and everyone's time.

MS. BARON: I did not say that it was a waste of time. I did not say that. Do not put words in my mouth.

THE PRESIDENT: Right. But the very fact that you're saying it's a captured regulator, means you're questioning the validity and the legitimacy of our decision. But we do have a due process. We respect you appearing in front of us and

raising the issues.

You've raised several issues. Some are outside our mandate, issues such as disputes between intervenor and the Band Council, allegations of bribery of then officials, or allegations of racial discrimination, for example. But there are many others that do fall within our mandate, and we would certainly like to delve into those a bit more.

So let me start off by asking Ms. Maharaj if she has got other questions.

MEMBER MAHARAJ: Thank you, Madame Velshi.

I would like to first thank Elder Morningstar for her story. That was a very moving story, and I appreciate the opportunity to hear it from you.

I did want to ask a question with respect to the involvement of, I guess, your group of people within the First Nation with respect to the current environmental assessment and the current testing, Ms. Baron. Is there an opportunity for you to be involved with learning what the results are for

the environmental testing, and have you had an opportunity to ask the questions that might be important to you?

MS. BARON: I think you should ask that question of Joan Morningstar, actually. I'm just helping her out.

MEMBER MAHARAJ: Either one of you may answer.

MS. MORNINGSTAR: Could you repeat that, please?

MEMBER MAHARAJ: Certainly. I was wondering if you have had the opportunity, Ms. Morningstar, to find out what the results of the environmental testing are, and to ask questions about how those tests were done and what those results mean?

MS. MORNINGSTAR: I have sent an email to CNSC about the testing back in the '80s for the underground water, and apparently I guess there was none. I asked for the assessment, environmental assessment, for that area now, and apparently they said that they included the assessment in the Blind River assessment.

I then further asked them if that was a normal procedure, to include two assessments in one, and I asked them for the exact page where Mississauga assessment was and the exact page of where the underwater testing was. I didn't get no response.

MEMBER MAHARAJ: So I was speaking more with respect to the current environmental testing that's being done, Ms. Morningstar. Have you had an opportunity to speak with anybody from Cameco or from CNSC about the results of the current testing?

MS. MORNINGSTAR: I have no knowledge of the current testing. First time I heard it. Pardon?

MS. BARON: Go ahead, Joan.

MS. MORNINGSTAR: First time I heard about the testing.

MEMBER MAHARAJ: Okay. I will --

MS. BARON: And we do state clearly that there is no safe amount.

MEMBER MAHARAJ: I understand your position, Ms. Baron. Just to finish responding to Ms. Morningstar, perhaps staff and Cameco can comment

about reaching out to Ms. Morningstar to provide her with information about the current testing results and action levels.

MS. MORNINGSTAR: All my dealings with Cameco and CSNC (sic), they didn't even know where we were. When they put a meeting down, they would put Blind River, not Mississauga. They called us the dreamcatcher in Blind River. So I had to correct them. I want them to have a map of exactly where we are, because the time when there was a fallout, representatives came, and they had a big map and they showed where Mississauga was and they showed where the fallout went. They showed that -- so I was there.

They showed the fallout went this way. Totally missed the reserve. I said, "Okay." So I said, "Can I go up?" They said yes. So I asked them, I said, "Where is the reserve again?" They said over here, they pointed in a circle and they said the fallout was here. I said, "Well, for your information", I said, "where you pointed where the Mississauga is", I said "that's Eastman subdivision." Where the fallout was was directly over our community,

because I know how to read a map. I grew up basically in the bush. I read maps, compass, everything. So they have to --

MS. BARON: This would be a good time to tell them about the fallout morning.

MS. MORNINGSTAR: Yeah, when I got up that morning, it was -- we didn't know because nobody told us, and when we got up, I had a white car -- we had a white car, a big white Cordova. And that morning there was a dark yellow greenish powder that all covered the car. So I walked out there and I didn't know what it was and I put my hand in it.

So today I've got lung cancer and my ex -- he's my ex now, he has cancer. My next-door neighbour died of cancer. My friend across the street got breast cancer. My other friend -- and there was a guy who worked at Cameco who died of cancer. My other friend down the road, she died of cancer just last year. There seems to be people dying. I can tell you more and more of the people that died from cancer in our community in the 38 years that Cameco has been here.

I was very active outside. I skied. I played the guitar. I'm a senior. I'm a musician. I hike. I do everything. Snowshoe. Today I can't do nothing because cancer attacked my walking skills, my talking, my fine and gross motor skills. I can't even play the guitar no more. I can't sing. I had 30 radiation treatments and seven chemo. And I didn't abuse my life. Just because I'm a Native doesn't mean I drink or did drugs. I didn't do that. I took very good care of myself. I went to bed early. I ate right. And this is what happens when you do that. You know?

We got a plant a mile from us on our doorstep but we're not considered? Read my reports from 2015. I didn't make nothing up. Everything is cut and paste from Cameco's 2015 annual report. Read that. You'll see there's no mention of Mississauga. The emergency evacuation plan, no mention of Mississauga. But Cameco got emergency evacuation plan for the golf course? Blind River but not us?

It's right there. It's the truth. Deal with the truth, not hearsay, that all these

chemicals are good for the environment and Mother Earth. The killing that goes on daily every second. Look shape Mother Earth is in. It's going to get worse.

MEMBER MAHARAJ: Thank you so much, Ms. Morningstar. I really appreciate hearing what you have to say, and I think you've answered my question. So I would just like to hand it back to Madame Velshi. I don't have any further questions for Elder Morningstar or Ms. Baron.

THE PRESIDENT: Thank you, Ms. Maharaj.

Maybe I'll ask Cameco to comment on what Elder Morningstar has said and about this event of 2015. Can you shed some light on that, please?

MR. MOONEY: It's Liam Mooney for the record.

I think that there was an annual report, as was indicated, that did not specifically mention the Mississauga First Nation and that has been corrected, and subsequent reports do point to the Mississauga First Nation. Our annual reports do

report in relation to that.

On emergency response planning, my understanding from our former GM, who I understand is soon up, was that there was a good deal of discussion about our emergency response plan, as well as helping Mississauga First Nation develop an emergency response plan.

So we do have a mutual aid agreement with the Blind River Volunteer Fire Department, who also has then an agreement with the Mississauga First Nation. I think that on the topic of emergency response, that has been something that was flagged given the proximity of Highway 17, and there was some mention earlier in the morning of an effort that was made after a vehicle came off the road to help better prepare the Mississauga First Nation for those sorts of events. Not specific to Cameco, but because of the highway being there. And Cameco donated a trailer and assorted firefighting gear to better prepare Mississauga First Nation for its response.

The other point that was being raised was in relation to an event that our records show took

place in 1990. In that conversation, we understand that there was a release of about 178 kilograms of uranium, there had been an operator error that allowed the bypassing of a collection facility. It was detected and was stopped after that. From that, I think that there was a number of corrective actions that were put in place.

As we've indicated a couple of times already, we have had very low emissions. We've exceeded no action level at the facility during the current licensing term. And that's something that we're very proud of and we think reflects well on the world class safety performance that's critical to the functioning of the facility.

THE PRESIDENT: Mr. Mooney, Elder Morningstar has talked about the high rate of incidence of cancer in her neighbourhood. Has Cameco looked into that? Have you had discussions with the Public Health Agency or whoever may be monitoring that to see if it needs further investigation? And I'll ask staff the same question.

MR. MOONEY: It's Liam Mooney for the

record.

We don't quite have the same circumstances where Dr. Irvin, as you know, in northern Saskatchewan we talk to quite regularly. In his presentations he does discuss the cancer incident rate and what it looks like across a broader population, and I think his comment during the last relicensing proceedings was that one in three people eventually get cancer.

That's not to at all downplay the significance of it. It is a horrible disease, and we would like to not see it afflict anyone that we know and love. But I think that we haven't, to answer your question, engaged specifically in that regard, but it's something that perhaps broader conversation with the public health authorities may be warranted.

THE PRESIDENT: Let me see if staff has any insights on this. CNSC?

MS. MURTHY: Yes, thank you. Kavita Murthy, for the record.

Kristi Randhawa is online. She's an epidemiologist, and she can comment on the studies.

Thank you.

MS. RANDHAWA: Hi. Kristi Randhawa, for the record, Radiation and Health Sciences Officer.

So as Liam Mooney mentioned, cancer incidence in Canada, I think the number is now two in five Canadians will be diagnosed, with lung cancer being one of the most commonly diagnosed cancers.

And CNSC does monitor the public health unit reports. We've summarized that in the environmental protection review report. In terms of health impacts from the nuclear facilities, studies carried out over several decades have repeatedly demonstrated that people who live near these facilities are as healthy as the general population.

Based on exposure and health data, CNSC Staff have not observed and do not expect to observe health effects or outcomes attributable to the operation of Blind River Refinery.

And in terms of that event that happened in 1990, when you look at the exposure, although it may have had observable -- as you mentioned, you can see the uranium or what may have

been yellowcake, I guess, on the cars, the exposure to the community was less than one percent of the public dose limit. So at these levels, we don't expect to see health outcomes.

And in terms of uranium exposure, we're more likely to see the effects to the kidneys, and we consistently study workers to really see health effects because these are the people who have those higher exposures, and we have the exposure data on them. So they can provide an indication of the health effects that we expect or would expect to see possibly in the community, and we're not seeing those health effects in workers.

THE PRESIDENT: Thank you very much.

Dr. Demeter.

MEMBER DEMETER: Thank you.

And especially thank you, Elder Morningstar, for sharing a very personal story and your historical reflections and knowledge.

I wanted to follow up on two issues. The first one is, I have, you know, in part of my past career been quite sensitized to the bioaccumulation of

heavy metals dealing in public health, mostly, with lead around industry so I understand the concerns raised about bioaccumulation of heavy metals.

And I wanted to ask staff help me understand the difference between -- one of the intervenors, MMF, had Appendix N in their CMD which was from the International Institute of Concern for Public Health which talked about uranium soil levels in vegetation, water, air, so forth. But all the information from the CMDs from Cameco and from staff looking at uranium deposition in and around the plant show that the levels are equivalent to that of background in Ontario.

So I wanted to dig deep -- like I wanted to get a sense of how deep these samples are taken to determine if they would pick up historical contamination that happened 20 or 30 years ago versus just surface contamination which might have happened in the last year.

MS. MURTHY: Kavita Murthy, for the record. Just give me a moment. I'm looking for the right person to provide you with the response to that

question.

MS. BARON: And are you asking about bioaccumulation in living human beings or historical depth, like soil depth? What exactly are you asking?

MEMBER DEMETER: Well, I'm looking for the root deposition. It has to start with deposition in soil and vegetation, water and air. And if it's not there now and not there historically, then the human bioaccumulation is not as big an issue if you look at causal links. So I'm looking for historical -- whether the current sampling of uranium in the soil would pick up historical contaminations that might have happened decades ago versus what's happening in the current state, so --

MS. BARON: Well, with all due respect this morning, we heard that Cameco said that soil levels at historical sites are the main source of public contamination and that the Canadian Nuclear Safety Commission considered that an errata and said that gamma radiation is the main source. That's a direct quote from this morning.

THE PRESIDENT: CNSC Staff, your

response, please.

MS. MURTHY: Kavita Murthy, for the record.

Melissa Fabian Mendoza from the Environmental Assessment Division -- Environmental Risk Assessment Division is online. She'll provide the answer to that.

MS. FABIAN MENDOZA: Good afternoon, everyone. Melissa Fabian Mendoza, Director of the Environmental Risk Assessment Division.

I'll start just by speaking about the accumulation of uranium in soil and the air at Blind River Refinery, so the key thing to note here is that there is no accumulation of uranium in soil and the air at the Blind River Refinery due to the current facility operations.

Our CMD Table 13 specifically provides annual average uranium concentrations in soil from 2012 to 2020, and although uranium continues to be deposited to the soil, the 2020 data are the lowest for the sampling sites within the 1,000 metres from the facility and in the range of uranium

concentrations detected since 2012 for sampling locations outside the 1,000-metre area.

So there's no statistically significant increasing trends in soil uranium levels due to the current uranium emissions from Blind River Refinery. If it's helpful, I can also provide some information on uranium's behaviour in the environment, but I'll ask if that level of detail is requested.

Thank you.

MS. BARON: And incinerators.

THE PRESIDENT: Ms. Baron, please put your hand up if you do have something to say and I'll give the mic to you.

Dr. Demeter, does that satisfy your question?

MEMBER DEMETER: It didn't deal with whether or not the current sampling would have picked up historic deposition. You said 2012 to 2020. I mean, if it doesn't pick it up, that's the answer, but, you know, it depends on how deep you go down. It's like an archaeological dig where the samples will refer back to a strata of time.

MS. FABIAN MENDOZA: Melissa Fabian Mendoza, for the record.

I'll ask our specialist, Dr. Michael Ilin, to speak more to how that historical contamination would be picked up under the current sampling regime.

So over to you, Dr. Ilin.

DR. ILIN: Good afternoon. My name is Michael Ilin. I am an environmental ecosystem specialist.

Actually, I'd like to approach this question from the basically soil monitoring program and objectives of the soil monitoring program. Actually there are just two main objectives. The first one is to address soil quality in the vicinity of the facility, and second is to determine if there is an accumulation of uranium in soil due to current facility operations.

Basically to address these objectives, CNSC staff use existing federal and provincial soil quality guidelines, and CNSC staff consider all information available, including the surveys done by

the Ministry of the Environment since 1981 in the Blind River Refinery area. The soil monitoring program done by CNSC and the monitoring data obtained during the CNSC independent environmental monitoring program.

With regard to the accumulation of uranium in soil, it's a question outside of the soil quality basically because there could be accumulation of uranium even within natural soil. So basically if soils are mature or uranium concentrations, for example within the background range, the soil is considered like uncontaminated. If soil concentration is above the background level, CNSC staff used the federal and provincial standards and guidelines to assess the risk associated with these concentrations.

The accumulation of uranium in soil due to the deposition from the airborne emission is a very slow process. When we consider current relatively low emissions of uranium from the Blind River Refinery. So sometimes it takes several years to catch the changes in the soil concentrations. However, we have the data from CNSC that basically

conduct their soil sampling on an annual basis, and we could compare the concentrations. These concentrations are provided in the annual compliance monitoring reports. The reports include maximum levels, minimum levels, and average levels. So all these concentrations are measured in two soil horizons, the surface soil which is the top 5 centimetres of soil and the ^ below from 5 to 15 centimetres. So basically it's quite important to determine the rate for uranium accumulation in soil and whether this accumulation could reach the levels that basically is not acceptable or could be not safe.

So basically we have all evidence currently demonstrating that current operations of Blind River Refinery cannot result in accumulation of uranium in soil, okay?

And we have all evidence, including the Ministry of the Environment data, demonstrating that since 2003 or even 2000, there is no accumulation of uranium in soil near Blind River Refinery.

Thank you. I tried to address this question as I could.

THE PRESIDENT: Thank you, Dr. Ilin.

Ms. Baron, over to you.

MS. BARON: Hi. I just want to say that that's not the point.

The point is that you could study soil all day long. You have an incinerator that is sending ceramic uranium in the air, probably when the wind is going to blow it over Lake Huron. It's cumulative over time and there is no safe amount. You could science it all day long.

We need Health Canada to step in and have jurisdiction over the scientists, with all due respect, at Canadian Nuclear Safety Commission, and we need to look at bioaccumulation in the humans, in the life, and see if there's a correlation to the cancers that Joan Morningstar, as a traditional knowledge-keeper, is telling you is happening.

And with all due respect, there's an elephant in the room. Let me quote Article 12 of United Nations declaration. The right to repatriation of their human remains states, which is the Crown, which is the Canadian Nuclear Safety Commission,

"shall seek to enable the access and/or repatriation of ceremonial objects and human remains in their possession through fair, transparent and effective mechanisms developed in conjunction with Indigenous peoples concerned."

Can we talk about that, please?

THE PRESIDENT: Thank you.

Well, maybe I will ask Cameco. Do you want to comment around human remains or disturbance of human remains, the concerns that have been raised?

MR. MOONEY: Thanks for the question. I'm going to ask Dale Clark to walk us through our response in that regard.

We do take the matter seriously and understand the sensitivity of it and, given how it has been raised, we have looked into the matter and Dale will provide our response.

MR. CLARK: Thank you, Liam. Dale Clark, for the record.

As Liam just said, I would also echo we certainly respect the sensitivity and the significance of questions in this area.

Of course, Cameco was not the proponent of the original assessment in the approval process at the time of the construction of the refinery. Cameco was formed in 1988. The site was constructed and initially operated by a Crown corporation, Eldorado.

But that said, we've gone back. We've looked at the records that we have or are aware of. We have looked at the archeological studies carried out for the area in the late 1970s and 1980s as part of siting of the facility and, in fact, I believe were referenced in the earlier presentation by Mississauga First Nation as well.

We have no record of a -- no documentation, no record of a discovery during construction. There is a reference in those -- in one of those reports to two burial sites at around that time, both of which are north of the Eldorado property where the refinery was built.

I can also share that we've heard verbal accounts from a former employee of some remains that may have been discovered during construction and,

in fact, the activity stopped in the area at the time of construction, the area turned over to federal authorities, to the appropriate government department responsible at that time. We've not found any documentation, any record of that, but there have been a verbal account of that.

And one other reference that we're aware of, we found a reference to a discovery of remains and artefacts found to the east of the refinery in the gravel pit, eastern or -- I believe. So that is land that belongs to the Town of Blind River, not directly related to the construction of the refinery, but again similar timeframe, in the late 1970s. That was actually recorded in the Mississauga First Nation community newsletter as well.

So we have no record of any other -- any discoveries during construction of the refinery itself. That said, we would certainly, you know, welcome working with the leadership of Mississauga First Nation to go through the reports, the studies that we have, that they may have, and work together to find the right solution going forward.

THE PRESIDENT: Thank you.

Ms. Morningstar? You're on mute.

MS. MORNINGSTAR: I would like to say I'm a true witness to that burial ground. I saw the excavation site and I was there. For them to not say it wasn't there, I don't know who does not want to give the facts out.

I want the people back. I talked with the archaeologist that did the dig. He told me not to call him back. He also didn't put it in his archaeologist's report.

I've been working on this since 1980. His reports were declined because he did not accurately report everything.

Thank you.

THE PRESIDENT: Thank you, Ms. Morningstar.

And Mr. Clark, you've heard from Ms. Morningstar and you're willing to -- you know, you've offered to work with the Mississauga First Nation Elders, knowledge-keepers, and here's an opportunity to hear from Ms. Morningstar and get some insights

into this.

Ms. Baron, last question or comment from you, please.

MS. BARON: Yes. With all due respect, it's not up to Cameco; it's up to the Canadian Nuclear Safety Commission and up to you, Ms. Velshi. You are the representative from the Crown. I'll read it one more time from UNDRIP:

"States shall seek to enable the access and/or repatriation of ceremonial objects and human remains in their possession through fair, transparent and effective mechanisms..."

Please don't pass this off to Cameco.

THE PRESIDENT: Thank you. Thank you for that.

We will now take -- thank you for your submission. Thank you for your presentation. Thank you for coming today, Ms. Morningstar, and sharing your very painful stories with us.

We'll take a break now and we will

resume at 3:35 with the rest of our interventions.

Thank you.

--- Upon recessing at 3:20 p.m. /

Suspension à 15 h 20

--- Upon resuming at 3:35 p.m. /

Reprise a 15 h 35

THE PRESIDENT: Welcome back,
everyone. We're ready to continue with our
interventions and our next presentation is by Mr.
Chris Astles as outlined in CMD 21-H9.45.

Mr. Astles, the floor is yours.

CMD 21-H9.45

Oral presentation by Chris Astles

MR. ASTLES: For the record, my name
is Chris Astles. I am a life-long resident of Blind
River. But more importantly, I am a retired employee
of Cameco, where I spent my entire career at the Blind
River Refinery.

After graduating with a degree in Mechanical Engineering, I started my employment with Lumus Canada, the construction company that was building the UO₃ refinery for Eldorado. Upon completion of the construction, I was lucky and I was hired by Eldorado, which became Cameco, where I was able to spend the next 37 years of my life in various roles from Process Engineering, Maintenance Engineering Supervisor, Operations Superintendent, and finally as General Manager for the remaining 19 years of my career. And probably Cameco's longest serving General Manager at any of their operations, and it's something I'm quite proud of.

During my tenure as General Manager, I was able to be part of a strong team that had to face numerous challenges, but had the privilege of creating a successful operation with strong performance in all areas of the operation.

I created a personal culture goal for myself that was based on what I called the three Cs. I held myself accountable to maintaining specific qualities for myself, focused on my commitment to the

success of the refinery, the employees, and the local communities, recognizing that my lowest level of commitment would be the next person's highest.

I also realize that the success of the refinery was built around open and honest communications, that keeping employees and the local communities well-informed would help them understand what is happening at the plant, as well as reduce any confusion or misinformation as to its activities.

And finally, I recognized the value of caring. That I truly did care about the people at work, the people that live in our communities, as these are the people that I grew up with, I live with, and I socialize with. And these are also the people my kids have grown up with and have gone to school with, and we recognize the value of a family commitment to the decision-making process of our daily work.

I was (technical difficulties / problèmes techniques) of the Blind River refinery to adopt the 3 C concept. This allowed us to work together, committing to a culture of continual

improvement. In our everyday activities, we always strived to become better, even if it was just in baby steps.

Once we were able to continually reduce or -- we were continually able to reduce our impact to the environment. Reducing uranium emissions to a fraction of regulatory limits. We maintained a very thorough monitoring program that included all the process stacks, sampling of high vol stations, effluent and ground water sampling, lake and river and soil sampling.

The reduction in emissions was accomplished by implementing process changes that had an impact on the environment, such as designing recycle streams for the recycle of our processed condensate, adjusting free acidity control of the same condensate which allowed for the elimination of ammonia as a process chemical -- dangerous chemicals on site. Today that ammonia storage tank is sitting empty, it's purged and rinsed out.

We eliminated exhaust streams in the refinery that had no scrubbing or filtration system so

that all uranium processing equipment ventilation must pass through scrubbers or bag house filtration systems. We were also able to reroute manholes out in the yard to ensure any storm water collection systems drained within the refinery to the lagoon system. And specifically (technical difficulties / [problèmes techniques transmission difficulties]) it was an issue at the last licence hearing where it actually drained to a ditch outside the fence line and that has been rerouted to inside the property.

The design and control process at the refinery ensured that we used proper controls and oversight to ensure that any of the changes did not have a negative impact on the operation, or to the safety of employees or the environment. I could spend the next hour providing a list of process improvements, but I'm sure you'd get tired of listening to me.

The site also used third-party experts or consultants to help us validate our performance where we would implement changes for improvements. Our ground water monitoring program was reviewed by

consultants on several occasions to ensure that we were properly evaluating the groundwater flow under the property, and over the years we continued to add additional wells to enhance the monitoring program.

We used third-party oversight for our stack emissions on an annual basis, ensuring our monitoring program was providing accurate data and providing the information to ensure the operation was performing safely. We also used consultants to validate the flood potential of the facility, providing the design of the flood berm surrounding the property to protect the site from flood risk in the event of a 1,000-year storm, wave action, and simultaneous dam failure along the Mississauga River.

These are examples we would obtain professional expertise to help further enhance the safety and environmental performance of the site.

I would also like to talk about the safety performance and culture at the site, but it can be summed up in a simple statement. Over 15 years LTI-free. This achievement is not by luck. Continuing to operate the refinery accident-free is a

testament to the safety programs and the culture that exists with the employee group which is looking out for each other, working as a team, believing in the safety culture, living the principles of the safety charter, and believing in the family concept.

Numerous safety culture assessments have been carried out over the years, and these evaluations support the belief that the Blind River Refinery employees have a strong safety culture.

My one additive to this is that it is not a coincidence that the good safety and environmental performance coincides with the commitment to training programs and the creation of a standalone multidisciplinary safety and training department.

Blind River has the highest number of training support per employee in all of Cameco, which is a testament to the site's belief in a robust and thorough training program. The program has been frequently evaluated and audited by the CNSC over the years, and we were always commended on the organization and structure of the SAT methodology.

Finally, I want to talk about the commitment the Blind River Refinery has had to the local communities. The communities of Blind River, Mississauga, Algoma Mills, Thessalon, and others along the North Shore all benefit from the support of Cameco. The employees at the refinery are spending their wages in these communities, they support the local economy and are members of the communities, raising their families.

Annually the refinery was given a budgeted amount of dollars to support local events and groups, of which we are quite innovative in the distribution of the dollars. Just to let everyone know, it was not always a lot of money and so we had to be very careful as to how we distributed it. But we did become innovative on how we could support the local communities and truly tried to make a difference.

We held our annual appreciation day doing a day of cleanup with all the employees where we would shut the refinery down and send the work force out to do projects in the community. We did our

annual giving campaign, which was unique for Blind River initially, we are we could pick and support a different organization every year, having an impact on the community in the development of playgrounds, support to hospitals, improving the local library, supporting a senior's manor.

And it wasn't unique just to Blind River, we affected Elliot Lake, Sault Ste. Marie, Thessalon, all along the north shore. We supported local emergency response organizations or fire departments with a donation of equipment. We provided training for local firefighters in the town of Blind River, Mississauga, Huron Shores and the north shore, where we would send volunteers from their organizations to participate in training at Lambton College with our employees to enhance their qualifications and capabilities. This was always a challenge as these groups are made up of volunteers, so the individuals would have to use a week's vacation to participate in the training. But people did participate.

We also carried out annual on-site

training with the local fire departments with participants from the town and Mississauga, so that they would be familiar with the site, comfortable working with our Cameco responders in the event of an emergency and have a good evening with the boys.

We also were involved in the local schools, providing incentives to the teachers to help the students with the STARS program, supporting co-op programs and student placements, giving equipment to the trades programs. We participated in graduation ceremonies, supporting athletic programs, the science fairs. We even contributed and provided all the equipment for a local school to have a movie theatre, which is something that is used all along the north shore now because there are no local theatres anymore. We always looked at the students of today are going to become our employees of tomorrow.

Over the years we had an apprenticeship program with Mississaugi where we would work collaboratively with them and for the creation and development of individuals looking for a trades ticket, where they would provide the individual, we

would share the costs of wages, and Cameco would provide the training.

Also, over the years, we have provided technical support and advice for the town and Mississauga in reviewing different bid documents and submissions from vendors, and providing maintenance support to Mississauga specifically for the support of their water treatment plant, where they had equipment failures over there and they would call up and we would send our tradespeople over to help them out to ensure they had ongoing water supply.

Once again, I could go on about the impact Cameco has had in the communities, but to summarize everything, all you have to do is look at the community surveys that we have conducted over the years where we have scored well over 90 percent in the community trust and support, and here again this is not by luck. This has taken a lot of work and effort by the employees and the support of the company itself.

Lastly, I want to talk about the regulatory oversight that the refinery has to comply

to. As everyone here knows, we are regulated by the CNSC and have to comply to IAEA international regulations, both of which involve frequent inspections. As well, other provincial and federal regulators have oversight of the refinery operations. The site continually met and exceeded all of its obligations and requirements. This has always taken a lot of work and commitment, but the organization was developed to meet these with different programs and policies.

With that, I would like to say thank you for the opportunity to speak and I am very willing to answer any questions. Thank you very much.

THE PRESIDENT: Thank you, Mr. Astles, for your presentation today.

Dr. Demeter, to you first for questions.

MEMBER DEMETER: Thank you, Mr. Astles, for sharing your information and personal history with the organization. I have no specific questions.

THE PRESIDENT: Ms. Maharaj?

MEMBER MAHARAJ: Thank you, Madame Velshi. Mr. Astles, you mentioned at the beginning of your presentation three C concepts. Could you tell us what 3C means?

MR. ASTLES: The three Cs are , commitment, communications, and caring. When I became the general manager, initially I struggled as to what is it going to take for Blind River to succeed under my leadership? And I came up with the philosophy that if I could adhere to what I coined as the 3Cs, then the refinery's culture would continually improve.

MEMBER MAHARAJ: I see. Okay. Thank you. That's very helpful.

Beyond that, I have no questions, Madame Velshi. Thank you, Mr. Astles. It's been great to hear from you.

THE PRESIDENT: Thank you.

Mr. Astles, I don't know if you were here earlier today when the Mississauga First Nation made their submission. And one of the areas they identified where they had made a recommendation and seemed to think that Cameco had not followed up on was

around an independent review of the environmental monitoring program.

You talked about bringing third party consultants to look at groundwater monitoring and stack monitoring, etcetera. So I just wanted to get your insight because it was probably during your tenure as the General Manager and what your thoughts were on their intervention which seems to indicate that there is a whole lot of work to do with the relationship.

MR. ASTLES: I guess -- yeah, I have been watching all day because I'm interested in this, having been a long-term employee. And I am surprised -- or I was surprised at the intervention, because over the years I communicated an awful lot with Mississauga, being part of the community, meeting regularly with the band and council, the Chief, etcetera. So I was surprised at how this has gone.

However, I also know over the years we have had a lot of discussions on the environmental performance, programs that are in place, and we've always talked about third-party overview, and it was

always discussed that they should be the ones that find the third party to avoid any conflict of interest and we have always offered up to assist in the financing of it. But we didn't want it to appear that Cameco could be manipulating the data, or picking specific contractors that would favour Cameco. We were truly wanting to go independent.

THE PRESIDENT: Thank you.

Maybe I'll ask Cameco as a follow-up question to that, because one of the other recommendations from them was funding for a liaison officer, I believe. We didn't get a chance to ask you your thoughts on that particular recommendation and what the scope of that role could be, particularly around giving them reassurance from their perspective around independence.

MR. MOONEY: Thanks. It's Liam Mooney for the record.

In that regard, we go back to first principles on this. We have very low emissions, in fact they're essentially back to background at our fence line. We have looked at the different models in

relation to monitoring and additional monitoring in that regard, as was just mentioned. We have had the experience of having third parties come in to review our monitoring programs. And Commissioner Maharaj was asking questions about the independent environmental monitoring program that the CNSC has carried out a number of times over the current licensing terms.

Mr. Astles, in his capacity as General Manager, had agreed to provide funding for an environmental technician in the 2012 timeline, and we helped set that program up and provide some funding in that regard. And we were reviewing the record and from 2015 there was a report in the Mississauga First Nation newsletter indicating that the emissions in that regard were well below the Ontario licence limits in that respect.

The program did kind of -- I think that perhaps with the arrival of the independent environmental monitoring program, again not looking at a very large environmental footprint. So there might have been the two kind of colliding and more effort going into the IEMP that the CNSC operates. But we

have shown a willingness to do that, just to provide some further reassurance that our monitoring programs are robust and rigorous, and we are not having environmental effects.

So I think that we have had a history of that, and as Mr. Clark referenced in an earlier response, I think that what we're looking at is, going forward, is there an opportunity for us to improve the relationship and provide some visibility there?

Recognizing again the very low environmental effects associated with the facility.

THE PRESIDENT: Thank you very much.

Mr. Astles, thank you very much for your submission and for appearing in front of the Commission. It was very, very helpful hearing your role in bringing the organization to where it is today. Thank you.

Our next presentation is from the Canadian Nuclear Association. As outlined in CMD 21-H9.46. And Mr. Coupland is here with us to make the presentation. So over to you, Mr. Coupland.

CMD 21-H9.46

**Oral presentation by the
Canadian Nuclear Association**

MR. COUPLAND: Thank you and good afternoon, Madam Chair and commissioners. For the record, my name is Steve Coupland and I'm the Director of Regulatory and Environmental Affairs at the Canadian Nuclear Association. I'm pleased to have the opportunity to speak to the Commission today in support of Cameco's re-licence application for the Blind River Refinery.

You have already received written comments on behalf of the CNA and its members, and I would like to for the record briefly touch on some of the key points in our initial submission.

The recent COP26 meeting in Glasgow served to once again emphasize the critical role electrification will play in reducing climate change. Of course, electrification only reduces emissions if it comes from clean sources. Nuclear energy is one of those clean sources. And as the Commission knows,

Canada is the world's second largest producer of uranium, and the Blind River Refinery is an important part of Canada and the world supply of nuclear fuel.

As I've said to this Commission in the past, the increasing global need for uranium does in no way trump the fundamental requirement of safety to workers, the public, and the environment. However, we do need to ensure that a critical nuclear facility, such as the Blind River Refinery, are able to continue to operate in a safe and responsible manner if Canada and the world are successfully -- are to be successful in addressing the climate change crisis we now face.

Fortunately for us, Cameco is one of the most experienced uranium mining and refining companies in the world and they've safely operated their facilities, including the Blind River refinery, for many years. It has been pointed out here on numerous occasions, but I'll flag it again, that in June of 2021 the Blind River Refinery celebrated 15 years without a lost time accident, which is a very significant achievement and speaks to their safety culture.

Cameco's number one value is the health and safety of its workers, the public, and the environment. In keeping with that value, it employs a comprehensive safety and risk management system reinforce those values. Part of that commitment, Cameco continually strives to improve safety and its processes.

In the current licence period, the Blind River Refinery has enhanced programs to align with newer or updated CSA standards, as well as new and updated CNSC regulatory documents. This continuous improvement has led to the CNSC rating that Blind River Refinery performance is satisfactory in all safety and control areas for each year of the existing licence.

Like all CNA members, Cameco takes great pride in protecting the environment. I think it's worth noting that the Blind River Refinery has not had an environmental incident during the current licence period. The Blind River facility is compliant with the world-leading ISO 14001 environmental management system, and the facility conducts extensive

sampling of water and air emissions, including in high volume sampling of ambient air, both near the refinery and in the town of Blind River.

The monitoring results demonstrate that the Blind River Refinery did not exceed any environmental action levels and was well below the limits set by regulatory bodies throughout the current licence period.

Cameco is committed to open communications and public disclosure and believes that the best way to build and sustain public trust and support is by operating with the highest health, safety, and environmental standards, and then communicating them to the public in an open and transparent way.

The Blind River Refinery, as has been mentioned, has strong community support, and that's been demonstrated with public opinion research that began in 2009. Again, the most recent survey, 2021, indicated 96 percent of Blind River residents are supportive of Cameco's operations and there's 100 percent awareness of the facility. Ninety-four (94)

percent of the residents agree that Blind River is a safe, healthy place to live, including 77 percent who strongly agree. That's a pretty significant number.

Before I conclude, though, I would like to address Cameco's relations with Indigenous communities, because that's been a topic of some discussion. Cameco takes great pride in its longstanding relationships with Indigenous communities and is generally considered to be one of Canada's leading corporations with respect to Indigenous relations, as has been demonstrated by the numerous awards, the gold level distinction Cameco has received from the Canadian Council for Aboriginal Business.

Cameco has had a longstanding relationship with the Mississauga First Nation, and that relationship was formalized in an MOU in 2010. In accordance with the MOU, the Blind River Refinery GM meets with the Mississauga First Nation Chief at least twice a year, and I understand that there's been over 40 formal meetings between Cameco and the Mississauga First Nation over the course of the licence, the current licence.

Given the historically positive relationship between Cameco and the Mississauga First Nation, the CNA was surprised by the Mississauga First Nation intervention. And looking at it, I think it's important to highlight that some of the issues outlined in the intervention have been discussed in the past and that Cameco was under the impression that they had adequately been addressed. But clearly further discussion needs to take place, and the CNA is confident that Cameco is committed to addressing those concerns as well as others raised in the intervention.

In addition, the CNA knows that Cameco remains committed to continuing their relationship with the Mississauga First Nation based on the principles of mutual respect and good faith dialogue. We believe based on Cameco's long track record of respectful dialogue and relationships with Indigenous communities at all their sites, we're confident that a mutually beneficial relationship will remain in place and a pact forward will be established to successfully address the concerns raised by the Mississauga First Nation.

CNA believes that past performance is the best indicator of future performance, and we believe that Cameco's proven track record of safe, environmentally responsible operation, combined with its commitment to continuous improvement and its commitment to a cooperative and respectful relationship with the Mississauga First Nation demonstrates that Cameco is a trustworthy and reliable operator. The CNA is pleased to recommend that the CNSC renew Cameco's licence for its Blind River Refinery for the requested 10-year period.

Thank you. I'm happy to answer any questions you might have.

THE PRESIDENT: Thank you, Mr. Coupland, for your presentation.

Ms. Maharaj, over to you for any questions, please.

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

I believe I'm good. We've touched on most of these issues already. We've had quite a number of strong supporters of the application, so

thank you for adding your voice.

THE PRESIDENT: Dr. Demeter.

MEMBER DEMETER: Thank you.

Thank you, Mr. Coupland, for your presentation. It's a bit of a stretch to link my question to your presentation, but I will try.

Do we still have the federal climate individuals on the line, Environment and Climate Change Canada?

MR. LEBLANC: Yes, we do.

MEMBER DEMETER: So my question is, given what we've been seeing in B.C., is it possible that we could have significant overland flooding to the levels of, you know, metres above the ground, and what would be the environmental impact -- maybe that's more of a CNSC question -- of that flooding on this operation?

We said this wouldn't have happened before, but we're seeing this happen more often, and is that a possibility given the latitude, longitude and altitude of this operation?

MS. MURTHY: Kavita Murthy, for the

record.

Dr. Demeter, you want CNSC Staff to answer; right?

MEMBER DEMETER: Wel, I think Climate can answer it.

Is it even a possibility in this geography from a weather standpoint of view and how far above sea level this operation is, and if it did happen, then what would be the CNSC's risk assessment?

MS. MURTHY: I see that Duck Kim from Environment and Climate Change Canada is online, so I'll let Duck go first and then I will have someone from the Environmental Risk Assessment Division.

Thank you.

MR. KIM: For the record, my name is Duck Kim. I'm the Senior Nuclear Coordinator for Environment and Climate Change Canada.

First of all, due to climate change or due to the events, recent events such as what you have mentioned regarding the flooding in B.C., storms have become more severe in many cases, and so Environment and Climate Change Canada and the CNSC is involved in

developing new guidance for flooding risk assessment. So that's going forward. That is in progress. But generally speaking, the trends that we are seeing is likely to continue.

And as far as this particular site, Blind River Refinery, I think we heard from just a previous intervenor, a former GM, that the flood risk assessment was based on thousand-year storm events, and that is also including the concurrent failures of the dam and high water or wave -- sorry, high wave activity. And so that would be the kind of conservative assessments that we would expect for flood risk assessment.

And based on what we have seen, we feel currently that the flood risk assessment done for the Blind River facility is adequate.

Now, going forward with new guidance, there may be some adjustments, but that's the current expectation and understanding.

THE PRESIDENT: Thank you, Mr. Kim.

Ms. Murthy, to you for CNSC input.

MS. MURTHY: Thank you. I would like

to ask Melissa Fabian Mendoza from the Environmental Risk Assessment Division to speak to this, and maybe one of the specialists in that group.

Please go ahead.

MS. FABIAN MENDOZA: Thank you. So Melissa Fabian Mendoza, Director of the Environmental Risk Assessment Division, for the record.

So CNSC Staff do examine whether a licensee or proponent has considered climate change during technical assessments related to safety analysis, environmental assessment and then environmental risk assessments, and these assessments take place as part of the licence application, licence renewal, and periodic safety assessment process.

And when it comes to climate resiliency assessment, we take a very conservative approach through a bounding analysis.

I think it's already been well discussed by our colleagues at ECCC that Blind River Refinery, Cameco, did conduct a flood hazard assessment of a worst-case scenario assessment. This assessment indicated that the area where the refinery

is located would be flooded to some extent under probable maximum flood conditions as well as under probable maximum flood conditions combined with a cascading dam failure.

Cameco constructed the berm as a mitigation measure as a result of this, and CNSC Staff have reviewed this flood assessment as well as the mitigation measures put in place and have found it to be appropriate.

I hope that answers the question.

MEMBER DEMETER: I'm satisfied with that answer.

THE PRESIDENT: Thank you.

Maybe we'll take this opportunity to ask if Ontario MECP has anything they'd like to add.

Mr. Dorscht, are you with us?

MR. DORSCHT: Just a minute. I'm just trying to activate my camera.

Ron Dorscht, for the record, MECP. I'm the supervisor of the Sault Ste. Marie office.

I have nothing to add on the climate change front or anything.

THE PRESIDENT: Thank you very much.

Mr. Coupland, thank you very much for your submission and your presentation. We very much appreciate that.

Let's move on to our next submission. It is a presentation from Northwatch as outlined in CMDs 21-H9.51 and H9.51A, and we've got Ms. Brennain Lloyd with us to make the presentation.

Ms. Lloyd, over to you, please.

CMD 21-H9.51/21-H9.51A

Oral presentation by Northwatch

MS. LLOYD: Thank you, Commissioner Velshi. I have some slides. I'll just wait for them to come up. Thank you.

Good afternoon. I'm joining you from the Robinson-Huron Treaty area, Nipissing territory. I am with Northwatch. We're a regional environmental non-governmental organization in northeastern Ontario --

--- Technical difficulties / difficultés techniques

MS. LLOYD: I believe I lost connection and I'm reconnected.

MEMBER DEMETER: I think we all are.

THE PRESIDENT: We're all back.

Sorry, Ms. Lloyd. We can start again.

MS. LLOYD: Thank you. I'll abbreviate the introductions.

I'm Brennain Lloyd from Northwatch --
--- Technical difficulties / difficultés techniques

MS. LLOYD: Louise, if I could have the slides, too, please? If not, I can carry on without them.

THE PRESIDENT: Ms. Lloyd, why don't you continue and I'm sure they'll catch up with you momentarily.

MS. LLOYD: Very good. Thank you.

So we have an interest in the Blind River uranium refinery. In fact, our founding members were very active in the discussion prior to the decision and the construction of that refinery.

We previously intervened in licence reviews since around 2004, certainly 2006, 2011, and

we've commented on a number of the Regulatory Oversight Reports.

The first issue we want to comment on is licence term. That's Slide 2.

We did really object to the extension of the licence term from five years to 10 years in 2011. 2006, we objected to it going from two years to five years, mostly because of the lack -- the reduction in transparency and opportunities for public engagement and increases in discretionary decision-making that we thought would flow from that.

Staff is again -- Cameco is again requesting the 10-year licence term. Staff is again recommending that. And the staff rationale is that there will be a periodic review every five years, safety analysis report, environmental risk assessment, and that that, combined with the Regulatory Oversight Report, is adequate.

Our experience is different and, in large part, based on the experience of the last 10 years. For example, the mid-term performance report in 2017, mid-term, we requested that and we were told

by CNSC Staff, "Oh, that was the 2015 Regulatory Oversight Report", not at all comparable to the level of detail that we had seen in the mid-term performance report in previous licence terms.

In addition, there are a number of shortcomings with the Regulatory Oversight Report, particularly if it's going to be suggested that they substitute for mid-term performance reports or for shorter licensing terms.

They're very general, they're often repetitive. They're difficult to find on the -- particularly to find the most recent on the CNSC website, and they simply, you know, don't -- they're inadequate to the task.

In the case of the most recent review, Cameco's mid-term environmental risk assessment was prepared in draft in 2016, but it wasn't completed until 2020, and I recall no opportunity for public comment on it prior to this licensing period.

Next slide, please.

We have tracked through a number of licensing periods uranium concentrations in soil.

It's not the only performance indicator that we should be concerned about, that you should be concerned about, but it is one which we've been tracking. And in 2011, we actually had an independent soil sampling undertaken, and it identified that there were four sites. Our team was only able to access four sites with the assistance of Cameco, but due to winter conditions, they were able to access four sites and six sites, and four of them showed increases.

And Sites 2 and 4 showed significant increases since the 2007 sampling, increasing of 150 and 100 percent, respectively. And remember, Sites 2 and 4 by the fence line, significant increases from 2007 MOE report to 2011, the Northwatch monitoring.

Next slide, please.

What we could see from our limited sampling program and the MOE studies -- what's on the screen now is actually an MOE report -- is that there's considerable variability both from monitoring site to monitoring site, from sample site to sample site and, over time, considerable variability.

So next slide, please.

With the information that has now been made available to us -- so in 2013, the Minister of the Environment released its next report, its 2012 report, and it also showed that a small number of sampling sites showed increases in concentrations, others remained relatively consistent, and a few showed some decreases.

In 2015 -- what's depicted on your map is the MOE monitoring sites. In 2015, Cameco's monitoring report reported, and this is astounding, that as a result of the construction of the berms just referred to, the berms that were constructed as part of flood management, some historic Cameco soil sampling in locations in the vicinity of the fence line were compromised, Site 2 and 4, significant sites near the fence line. They were compromised.

So those sites -- those sample locations are now out of the sample site, they're out of the data site. We consider that to be really a reckless disregard.

Next slide, please. I'll just turn it myself.

And we now -- at the 2011 review of Cameco's application, what we have are only -- we have no map, we have no identification of the sampling locations. We have only averages and maximum concentrations.

We have no data specific to the sampling locations. We've requested this from Cameco, and Cameco has denied that request.

We can see even from this limited amount of information that there are some increases year to year. We can't say that they're trends and we can't identify where they are. We can't compare them historically to the earlier sampling information.

And I'm really pleased to see that Ron Dorscht is here. I understand or I expect that MOE has conducted another set of sampling reports, but I've been unable to locate it. So perhaps if one of the Commissioners could ask Ron whether MOE has done another report since 2013 and where it might be available.

I was struck by the comments earlier by Ms. Mendoza and by Dr. Ilin that there are no

increases in the soil, and that Dr. Ilin even said that the MOE studies showed that there are no increases in the soil, and that's certainly not what the reports indicate. So that's a problematic statement, I think, for the Commission to be provided.

Next slide, please.

So this persistent lack of detailed information and the averaging out of the monitoring results is really a limitation, but it's further compounded by an absence of any production numbers. We can no longer find -- even in Cameco's corporate reports, we can't find production numbers. They weren't provided in any of the CMDs, the licence application, the supporting documents or in Cameco's report so we can't compare on a per unit basis, are the releases increasing or decreasing on a per unit basis.

And we think this is important. One of the reasons it's important is Cameco has sort of a quasi approval to increase production from 18,000 to 24,000 tonnes. If we see -- and I can't say they're trends, but we see increases, 2017 to 2019, 2019 to

2020 in the documents -- in the current documents.

 Cameco's production, we assume, was reduced during COVID year, and we can't make that comparison.

 We also -- another unknown is, we don't know of the uranium releases. We don't know what of those releases are from production versus incineration. And we also -- I'll jump a little bit ahead into the waste management issues, but we also don't know of the incineration what volume of material -- uranium contaminated material that's been incinerated, what proportion of it is from Port Hope and what proportion of it is from Blind River. And that's all, I think, important information for us as a public interest organization, but for you as Commissioners to understand sort of the details of this site.

 Next slide, please.

 We did commission Hutchison Environmental Sciences Limited to support our review looking at environmental performance, and they did provide a number of, I think, really helpful

observations and recommendations for enhancement of the monitoring program currently undertaken.

Next slide, please.

Waste management is also an issue that we've tracked through a number of licence periods, and we continue to be concerned that the information provided falls short of what is required, including it falls short of what's required by the *Nuclear Safety Control Act*, and this isn't the only licence that we've made this comment on.

Dr. Demeter, I think you were there in Chalk River in 2018. This was discussed, I think, at some length, but the information is simply not provided in the detail.

I do think 2011 -- 2021 had more information describing in a general way the waste stream, the waste inventory than 2011 did, but it still doesn't meet the requirements of the *Nuclear Safety Control Act*. It doesn't provide, for example, to quote from the Act, "the name, quantity, form and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed".

And it goes on.

I want to comment in particular on a statement in the 2012-2019 Operational Performance Report and Forward Outlook, and the comment was that the Blind River Refinery incinerator is considered a central processing operation of the Fuel Service Division and processes contaminated combustible materials from Port Hope, from the conversion facility, and from Blind River. And it goes on.

We agree that it's a waste management facility and we really question why it's not licensed separately from the refinery and why the commensurate level of information isn't available.

I do know we've had difficulty with some of the nuclear generating stations with that splitting off. There can be a downside with the splitting off of the waste management from the operations, but I would ask that the Commission consider this and get some independent legal advice on the option. What's the rationale for it being in one licence and what would be the benefits or disbenefits of having two licences?

Next slide, please.

So another issue which I just want to comment on briefly before we conclude is around the preliminary decommissioning plan, and I'll say that 2011 in Port Hope, I was there two days early for the Port Hope facility hearing, and that is the first time I learned that Cameco intended to ship all of their decommissioned waste from their two facilities in Port Hope to Blind River. That's the first time I heard it.

And this year, this licensing, the preliminary decommissioning plan I think its the first disclosure of a document released relative to the Blind River relicensing that acknowledges that. And in the decommissioning plan, they say that they have an assumption that the decommissioning -- an assumption that the waste from Port Hope, both the conversion facility and the fuel facility, will be transported to Blind River.

The preliminary decommissioning plan first states that the site will be remediated and returned to a natural state, and then it states that

it will become a waste management facility for not just Blind River decommissioning waste, but Port Hope conversion facility decommissioning waste and the fuel manufacturing facility decommissioning waste.

We object in the strongest of terms to this strategy, if you can call it that, of creating a massive radioactive waste facility on the shore of Lake Huron and transferring those decommissioning wastes from Port Hope facilities to Blind River, and we fully and heartily support the statements made by Mississauga First Nation this morning that their territory are not to be used as a radioactive waste facility in the long term.

So thank you.

We did make a number of requests, recommendations, and they're on the screen. And perhaps I'll close at that and welcome your questions and comments. Thank you.

THE PRESIDENT: Thank you, Ms. Lloyd, for that presentation.

Dr. Demeter, we'll start with you, please.

MEMBER DEMETER: Thank you, Ms. Lloyd.

I wanted to sort of get my head around the nitrogen and nitrate effluent. So when I read CNSC's CMD Table 11, it has a nitrogen -- nitrate as nitrogen is 1,000 milligrams per litre and a footnote saying that the screening assessment determined that these parameters did not require an exposure base release limit because they're well below existing protected water guidelines and therefore only warrant limits -- did not warrant limits, but monitoring.

So that's -- and then I look at the Cameco average nitrate concentrations in effluent discharge, and they're in the range of low teens to a maximum of 39, which is well below the thousand milligram per litre as nitrogen action -- limit or action level of 120.

But then based on the intervenor, I looked up the Canadian Council of Ministers of the Environment guidelines for nitrate emissions, and for long term -- for short term it's 550 milligrams per litre, so that meets that, but for long term in freshwater effluent, it's 13 milligrams per litre,

which this doesn't meet.

So what's with -- why would we not use the CCME long-term effluent guideline for nitrate emissions from this facility?

Maybe I'll talk to staff first and then Cameco can add in.

MS. MURTHY: Kavita Murthy, for the record.

I'd like to ask Jeffrey Lam from the Health Sciences and Environmental Compliance Division, please.

MR. LAM: Good afternoon. My name is Jeffrey Lam. I'm an environmental program Officer at the CNSC.

So as mentioned, it is not appropriate to compare effluent against the CCME guidelines because the CCME guidelines apply in the environment and not at the end of pipe. So this is why when we use the CCME guidelines, it's mainly used towards the release -- the environmental data that's measured in the receiving environment, whereas the end of the pipe, we will apply that to the licence limits.

As for a nitrate, it did not exceed any environmental guidelines in the environmental risk assessment, and it therefore is screened out the assessment to an effluent exposure based release limit.

MEMBER DEMETER: I'm sorry. Honestly, I didn't understand why the 13 milligrams per litre freshwater CCME guideline doesn't apply in this circumstance. Help me understand that.

MR. LAM: Jeffrey Lam, for the record. The CCME guidelines are for the environment, whereas the exposure based, what we're trying to calculate is for the end of the pipe. So when we calculate based on meeting CCME guidelines, it's meant to mean at the end of the pipe and not in the environment after a factor of dilution.

MS. SAUVÉ: Kiza Sauvé, Director of Health Science and Environmental Compliance Division, for the record.

I was actually going to suggest that we pass to Environment and Climate Change Canada because they also have a lot of information on the

guidelines and how they're derived, and I think that might help explain it a little bit better for Dr. Demeter.

So if we could pass it over to Duck Kim.

THE PRESIDENT: Mr. Kim first.

MR. KIM: Sure. Duck Kim, for the record, Environment Canada.

So just to be clear, the CCME guidelines, there's two -- there's kind of generic general guidelines and those are the numbers, Dr. Demeter, that you are quoting. The acute is the 500 milligrams per litre limit based on toxic thresholds and data found in literature versus the chronic is that chronic thresholds based on long-term exposure, sub-lethal effects on aquatic organisms, but there are also site-specific guidance that the CCME provides.

So the idea is, moving from generic guidelines to -- if data is available to be able to refine that guideline for site-specific purposes, and this is what has been done at Blind River, and the site-specific guidelines provide for a level of

dilution, so it includes the concept of initial dilution zone.

And the requirement for this to be applicable is that at the end of pipe -- so there's a diffuser that releases effluent from the plant. The concentration at the end of pipe needs to be below the acute limit, so that would be the 500 milligrams per litre. So beyond that and beyond the initial dilution zone, the water concentration of nitrate, for instance, needs to meet that chronic threshold of 13 milligrams per litre.

So if you would measure -- so a modelling was done and measurements have been conducted and Environment Canada is satisfied that beyond this -- you know, using the site-specific number or thresholds, Cameco meets the water protection -- sorry, the protection of aquatic life criteria in their effluent discharges.

MEMBER DEMETER: Thank you.

So my understanding is that beyond the exact end of the pipe, once it gets diluted, it meets the CCME guidelines.

MR. KIM: Correct. The chronic CCME guidelines.

MEMBER DEMETER: Thank you.

THE PRESIDENT: Ms. Peters, did you wish to add something?

MS. PETERS: Yes. Rebecca Peters, for the record.

I concur with my colleagues in the regulatory bodies. The CCME criteria is used or can be used for comparison and risk assessment purposes when used to develop a release criteria such as the EBRLs that are defined in the CNSC draft RegDoc 2.9.2. It's appropriate to use an appropriate mixing zone.

And for the Province of Ontario, that appropriate mixing zone is 20 times in a lake. So with that, Cameco's discharge meets the requirement.

In addition, we do do field monitoring of nitrate in the lake water, and the average for 2021 was an order of magnitude below the acute threshold at 0.13 milligrams per litre.

THE PRESIDENT: Thank you.

Ms. Maharaj.

MEMBER MAHARAJ: Thank you, Madam Velshi.

I would like to take Ms. Lloyd back to her comments with respect to the preliminary decommissioning plans and the concept of consolidating waste from Port Hope conversion facility, Cameco fuel manufacturing ultimately into a single site that would be controlled or managed by Cameco, so basically bringing all of their waste into a single place for decommissioning.

Ms. Lloyd, you've expressed some strong feelings about that as a concept, but I'm not sure I understand why this is a concern for -- like what is the nature of your concern with bringing this waste into a single place where it can be monitored and managed in accordance with regulatory requirements?

MS. LLOYD: There may be potential to bring two of those facilities' waste into a single place in Port Hope. I'm not going to comment on that. I don't know the -- you know, I don't know the Port Hope environment sufficiently to comment on that.

I do know that it's problematic that Cameco has been putting out for over a decade their assumption that they can move forward with this, their assumption that they can bring those unstated volumes of decommissioning waste to the north shore of Lake Huron to place it on the North Shore of Lake Huron in Mississauga First Nation territory, in Robinson-Huron Treaty area.

It's problematic that they've been operating for over a decade with that assumption and the community, the region, has no information available and has never had any opportunity to feedback on that, to the best of my knowledge, and we do track this facility fairly closely. So that's the first thing.

The second thing is that it is problematic to suppose that the waste can always just go away. It's problematic to think that the waste -- it's already, I think, an environmental injustice that the waste, the combustible wastes from Port Hope, are being shipped to Blind River for incineration.

And I understand that that was done, if I can recall correctly, back over a decade ago because Cameco didn't want to upgrade their Port Hope facilities to meet the new standards so they decided to consolidate that and bring that waste to Blind River. So now we have those releases, we have that waste, we have the related releases, potentially presumably increased concentrations of uranium in the soil, releases to air, releases to water because of those wastes coming from southern Ontario to northern Ontario. That's an environmental injustice.

And I think that, equally, it will be an environmental injustice to suggest that northern Ontario should accept these large -- unstated but large volumes of decommissioning waste.

I think when we talk about waste management, I think there are a number of principles that should be applied, and one of those is the proximity principle.

Radioactive waste should be dealt with always, but we're talking radioactive waste. Radioactive waste should be dealt with as close to the

point of generation as possible. Blind River is not as close to Port Hope as possible.

So that's all on a very conceptual level. We have been given -- we have no information about the facility itself, the volumes, the engineering, the containment systems, whatever. We've got no information so we can only talk on a really conceptual level. But at a conceptual level, we object.

I hope that's helpful.

MEMBER MAHARAJ: Well, it is, but I think I've still got some follow-ups.

So on a conceptual level, then, what you're saying is Port Hope shouldn't send its waste to Blind River, but it should keep it in Port Hope. So this is your proximity principle; correct?

MS. LLOYD: That's right.

MEMBER MAHARAJ: Let me just probe that a little bit further so I understand.

I'm not clear how it's an environmental injustice to consolidate waste so that it can be handled, presumably, in a more efficient

fashion, and you've referred to having waste or material shipped from Port Hope to Blind River because of the incinerator being in a better state of efficiency in Blind River than --

MS. LLOYD: Clarification on that. Because Cameco didn't want to upgrade their other facility.

MEMBER MAHARAJ: I was about to get to that.

MS. LLOYD: Okay.

MEMBER MAHARAJ: So Port Hope -- Cameco took a business decision not to upgrade its incinerator in Port Hope and, instead, consolidated its incineration needs in Blind River.

MS. LLOYD: Right.

MEMBER MAHARAJ: So I'm not clear how that is an injustice, an ecological injustice, insofar as the amount of waste that had to be incinerated has not changed.

MS. LLOYD: Cameco took a business decision and the North Shore of Lake Huron took an environmental hit. That's an environmental injustice.

You know, we could talk about this, you know and maybe -- Ron Dorscht is still on the line. He could maybe add in some detail.

There are a number of cases where we have different environmental standards for northern Ontario than for southern Ontario. That is an environmental injustice.

I don't think the Blind River Refinery standards are one of those cases, but there are other cases where there are different standards for northern and southern Ontario. That's an environmental injustice.

I see waste from southern Ontario coming to northern Ontario as an environmental injustice. Whether it's Toronto garbage, Cameco decommissioning waste, Ontario Power Generation irradiated fuel waste, it's an environmental injustice.

Waste should be dealt with as close to source as possible, and there's nothing -- there is no evidence that suggests that the waste can be more appropriately -- that it can be better engineered on

the north shore of Lake Huron than it can be engineered on the north shore of Lake Ontario. If there is reason, then we better look at Canadian Nuclear Laboratory's facilities, their engineered mounds on the -- on Lake Ontario. If that's the issue, then let's look at those.

But I don't think -- we've seen no information to that effect. What we see is that there's an assumption that the waste can be sent away. There's an assumption that northern Ontario will accept it. And there's an absolute neglect of all of the climate, all of the carbon impacts of that kind of transfer of large volumes of waste.

We assume it's large volume. We don't know. That information isn't available.

We assume it's going to be an engineered mound of some sort. We don't know. That information isn't available. We've got the same half-paragraph that's been -- you know, at least now we have a half-paragraph. I don't think we had that in 2011.

MEMBER MAHARAJ: So then, Ms. Lloyd,

if I can just make sure that I'm understanding your position most clearly, as long as the waste is addressed where it was generated, you don't have a problem with the decommissioning preliminary, insofar as it is preliminary, decommissioning plan for Blind River Refinery. Your objection is with respect to the movement of waste into a consolidated site. Is that fair?

MS. LLOYD: It is fair that we have an objection to the movement of decommissioning waste from Port Hope to Blind River. It is premature to say that we have any opinion whatsoever on the design of the facility for Blind River. There's no disclosure. What is that facility?

You know, I'm not going to say I have no objection to that. We have no information about it.

More than a decade after Cameco announced that this was its intention, we have no information about that facility other than what's in their preliminary decommissioning plan that the site is going to be returned to a natural state. One

paragraph. Two paragraphs down, the site is going to be used for a waste facility of undisclosed size for decommissioning waste for not only Blind River, but the Port Hope facilities.

THE PRESIDENT: Let's give Ms. Peters an opportunity to give Cameco's perspective on this.

Ms. Peters?

MS. PETERS: Thank you. Rebecca Peters, for the record.

I'll start first with the uranium -- the incinerator, and the discussion about that.

Just to clarify, the uranium incinerator, including the transport of waste material from the Port Hope area to Blind River for incineration, was subject to an environmental assessment which was approved by the Commission in 2006. This has been -- this has been part of our licensing basis since this time.

It is correct that at that time we made considerable upgrades to the Blind River incinerator on the pollution control equipment, and that was done specifically to consolidate, for

business reasons, the management of waste to one single location.

With respect to the actual emissions from the incinerator, the uranium emissions from the incinerator are consistently at the detection limit of 0.01 grams of uranium per hour. That is also verified on an annual basis by third party professional stack testers who come in following Ministry of Environment and Climate Change -- sorry, Environment, Conservation and Parks' requirements for that source testing.

They not only look at the emissions of uranium, but they look at the emissions of NOC, sulfur dioxide, suspended particulate, hydrogen chloride, hydrogen fluoride, dioxins and furans, mercury, cadmium, lead and hexachlorobenzene.

All of this information is available in our quarterly and in our annual report, so the information is available. So with respect to the incinerator, there is no emission that is impacting beyond the facility.

With respect to the preliminary decommissioning plan, I would just -- I have a couple

points. The first is to qualify what the purpose of the preliminary decommissioning plan is.

So the PDP is developed under the CSA standard N294 along with the RegDocs G206 and 219 because it was done prior to the new RegDoc being published. The next one will be with the new RegDoc for decommissioning plans. It is reviewed every five years. And what this is, is a requirement for the licensee to develop a plausible option for ultimate decommissioning of the facility.

I think it's important to say that we have no intention of decommissioning the facility in the upcoming licensing period, but it is a licence requirement for us to make adequate financial provisions in case something were to happen.

So in order to do that, we are required to develop the preliminary decommissioning plan, which we do with the guidance documents that I've referenced. And other options are evaluated in that, but this is the one that is taken forward.

So with this option, the proposed cost estimate is developed by a third-party cost estimator

from a professional engineering firm, and this is submitted to CNSC Staff. So CNSC Staff then review the preliminary plan and the cost estimate and then this is presented to the Commission for their approval of the financial guarantee.

So this is an amount of money that is held that would be paid to the CNSC if Cameco were to close its doors tomorrow so there is adequate funds to decommission the facility.

It is true that the Blind River PDP includes provision for receiving waste from the conversion facility and CFM, but this is an assumption used to develop the cost estimate only. There is no decision being made at this point that that will be the final decommissioning opportunity.

When the decision is made to decommission the facility, there is a requirement to go through the other phases of the decommissioning cycle, which includes a detailed decommissioning plan, environmental assessment and the regulatory licensing process that would go along with that. Included in those timelines in our preliminary decommissioning

plan is 49 months for consultation and regulatory approvals.

So this is, again, just a concept that had to be fleshed out in a certain level of detail in order to ensure that there were adequate funds available should something happen and the facility need to be decommissioned. It does not constitute a decision on Cameco's part, and certainly we recognize that there is an entire regulatory process that would have to go through the Commission, including an application to decommission the facility before any such activity could take place.

THE PRESIDENT: Thank you, Ms. Peters.

Maybe a follow-up question to staff around the preliminary decommissioning plan and the CNSC's expectations around the transparency associated with that and a need for any consultation even at that very, very early stage.

Are there any such requirements as opposed to what we've just heard that there's a paragraph only in the CNSC's submission that gives the communities any indication of what may even be

contemplated?

MS. MURTHY: Kavita Murthy, for the record.

So the preliminary decommissioning plan, as Ms. Peters said, is not a document that there is a requirement to have consultation on; however, Cameco is required to post a summary of the preliminary decommissioning plan, which they have done on their public website.

With respect to our review, I would like to ask Jocelyn Truong to speak to that, please.

MS. TRUONG: Jocelyn Truong, Project Officer in the Waste and Decommissioning Division.

With respect to the review of the preliminary decommissioning plan, that's correct. Our review showed that the PDP meets the regulatory requirements for G-219 and G-206.

When it is time, when Cameco decides to decommission, when they need to submit a detailed decommissioning plan, they would need to also include in the detailed decommissioning plan a summary report of any public and Indigenous engagement undertaken in

preparation of the detailed decommissioning plan, and this is outlined in the new RegDoc for decommissioning.

THE PRESIDENT: Thank you.

Ms. Lloyd?

MS. LLOYD: Yes, thank you. Just a quick response.

I think, President Velshi, I would then be cautious about the financial estimate that's been arrived at given that this is just -- it was only done for costing purposes and we're not really to be that concerned about the Port Hope decommissioning waste coming to Blind River because it's just a concept, just an idea, just something done for costing purposes, presumably to arrive at the lowest cost estimate possible.

So if I was a Commissioner, I would be taking that as a note of caution.

And just quickly to respond to Ms. Peters on the uranium releases to air, despite my criticisms of the Regulatory Oversight Report, I'm now going to reference one.

I do see from the 2020 Regulatory Oversight Report that the volume is low, but I also see that it's increasing 2017, 2018, 2019, 2020. It's about -- it's a bit more than a 300 percent increase from 2017 to 2020.

So it may be low. That doesn't mean we're not concerned, that doesn't mean that we shouldn't have accurate information, and it doesn't mean that we are relieved of our objection to Port Hope wastes being shipped to Blind River. It doesn't change that.

Thank you.

THE PRESIDENT: Thank you.

Back to Dr. Demeter. Any further questions?

MEMBER DEMETER: No, thank you. I'll leave my questions to the final round.

THE PRESIDENT: Thank you.

Ms. Maharaj?

MEMBER MAHARAJ: I will also leave any other questions for the final round, Madam Velshi.

THE PRESIDENT: Okay. Thank you, Ms.

Lloyd. As you've heard, you've raised a few other issues which we'll tackle in our final round of questions. So thank you very much for our submission.

MS. LLOYD: Thank you.

THE PRESIDENT: We will now move to our next presentation, which is from the St. Joseph's Foundation of Elliot Lake as outlined in CMD 21-H9.48. And Mr. Elliott, I will turn the floor to you.

CMD 21-H9.48

Presentation from the

St. Joseph's Foundation of Elliot Lake

MR. ELLIOTT: Thank you very much and thank you for the opportunity to present today.

I've been listening in for the last, you know, 40 minutes or so and I can tell you, what I have to add here is going to be significantly different in terms of its scope and its nature. It's not a technical assessment at all. I'm going to give you a little introduction and read a brief statement.

As I mentioned, my name is William

Elliott. I've been a resident of Elliot Lake since 1963. I was born here. We're located 60 kilometres away from Blind River where the refinery is, so I was here when the refinery was first constructed, when it was Eldorado before it became Cameco, so I'm a long-term, you know, participant in the process and exposed to what's been happening there.

I will tell you, my day job, I work for an economic development organization, and Blind River is one of the communities that we serve. As part of my job, I've had the opportunity to tour uranium mines in Elliot Lake when they were operational, the Pickering nuclear facility. I've been to Carlsbad, Mexico, to the facility. I've been to Namibia to the diamond mines there. I've seen a lot of industrial operations in mining and in the nuclear field.

And I can tell you that my personal opinion that the Cameco operation in Blind River ranks very high in comparison. I've toured that facility and I was certainly very impressed and, in relative terms, I give them full marks.

The St. Joseph's Foundation of Elliot Lake is a registered charitable organization. We were set up by the Sisters of St. Joseph of Sault Ste. Marie and we're charged with improving the patient experience at the St. Joseph's General Hospital in Elliot Lake, the St. Joseph's Manor long-term care facility, and the Oaks Treatment Facility.

I'm going to read from my notes that I have supplied.

So over the 13 years since its establishment, the Foundation has enjoyed a strong relationship with Cameco Corporation, especially its management and staff at the Blind River operation. Cameco is held in high esteem in the City of Elliot Lake as a premier employer, not only as a provider of high-quality job opportunities, but as a considerate corporate partner. The health and safety record of the Blind River operation is well known in the area and their safety-first mantra is perceived as the gold standard.

Cameco's concern for the health and safety of their employees and the surrounding

communities is evidenced in their support for their operations of the Foundation. The financial support of Cameco corporate offices but, more importantly, their Blind River employees through their giving programs has allowed the Foundation to purchase important medical equipment and provide much-needed programming in the area. While perhaps outside the scope of the CNSC, I strongly believe this is a direct extension of Cameco's commitment to the health and safety of their employees and that it should be recognized.

That's the extent of my comments. I thank you again for the opportunity to present today and I'm happy to answer any questions you might have.

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

Ms. Maharaj, over to you. Any questions?

MEMBER MAHARAJ: No, nothing. Thank you so much for coming, Mr. Elliott.

MR. ELLIOTT: It was my pleasure.

THE PRESIDENT: Dr. Demeter.

MEMBER DEMETER: Thank you as well.

I wanted to know what your catchment area was. What population do you service?

MR. ELLIOTT: So we service Elliot Lake, Blind River, the Township of the North Shore, the Town of Spanish, and the Serpent River First Nation.

MEMBER DEMETER: Thank you. That's a large area.

THE PRESIDENT: Thank you, Mr. Elliott, again for making your presentation and your submission. It's greatly appreciated. Thank you.

MR. ELLIOTT: You're quite welcome.

THE PRESIDENT: This concludes the oral presentation by intervenors.

We'll take a short break. Let's reconvene at 10 after 5:00 p.m. Eastern Standard Time for the final round of questions of Commission Members.

So we'll see you in 16 minutes. Thank you.

--- Upon recessing at 4:54 p.m. /

Suspension à 16 h 54

--- Upon resuming at 5:10 p.m. /

Reprise à 17 h 10

THE PRESIDENT: Welcome back. We will now have our general round of questions, and we will also use this opportunity to ask questions stemming from the 40 written interventions listed on the agenda.

We will start with Dr. Demeter.

MEMBER DEMETER: Thank you. I wanted to follow up on some information that I think would be useful to put into the report. There was a drum pressurization event in 2012 which resulted in increased uranium concentrations beyond the threshold and the reference to that was a dose assessment guide report of the CNSC Working Group on internal dosimetry draft 7, 2002.

So I went to the CNSC site I looked at, what is threshold? I couldn't find this document. I couldn't find the threshold. And I couldn't find

any data in the CMD similar to what you reported summary data for radiation dose to workers.

As uranium is primarily a chemical toxin to the kidneys, it would be good to have that information presented to reassure people that the monitoring that they do -- which they do do, is all below the threshold and what the threshold is.

So maybe first: What is the threshold, and can we include that data as a summary from their monitoring program like we do with radiation dose?

MS. MURTHY: Kavita Murthy for the record.

I believe we have that information. I'll ask Kristi Randhawa to speak to it, please.

I apologize. I guess it's Christina Dodkin. Christina Dodkin, Radiation Protection Specialist will speak to it.

MS. DODKIN: Thank you. I'm Christina Dodkin. I'm a Radiation Protection Specialist at the CNSC.

Dr. Demeter, regarding your question,

the CNSC has recommended the value of 3 micrograms of uranium per gram of kidney tissue. And this was a result of work that was conducted by the former CNSC working group on internal dosimetry's project that you're referring to that came out in 2003, and that was uranium intake dose estimation methods coming out in April 2003.

The CNSC continues to recommend that chemical toxicity guideline. And in fact, as part of Cameco's internal dosimetry program, and in particular the uranium in urine program, they have established their screening verification levels and action levels at conservative levels, that do take, from the point of view of a dosimetric and chemical toxicity point of view, are protective of the worker.

So, for example, the action level for uranium in urine for routine dosimetry samples are conservatively set below this chemical toxicity guideline. For non-routine urine samples, there is also an investigation level in place at Blind River where they are screened for chemical toxicity, and if they reach a certain conservatively set threshold, an

investigation is conducted.

So just in closing, we do -- the CNSC -- has a recommended a chemical toxicity guideline. This is, in turn, incorporated in Cameco's internal dosimetry technical basis for their urine analysis program that is also licensed by the CNSC.

MEMBER DEMETER: Sorry to be specific, but what are those thresholds, and can they be published in a manner -- can the monitoring program summary results be published in a manner similar to the dosimetry to provide reassurance that the toxicity aspects of their job don't affect workers?

MS. DODKIN: Apologies. Christina Dodkin, for the record.

Just to clarify, Dr. Demeter, you're speaking specifically to Cameco's threshold levels that they've established?

MEMBER DEMETER: I understand when you have uranium intake, the amount of renal activity is dependent on the solubility of the form of the uranium that you inhale. But at the end of the day, the uranium in the kidney is more of a chemical toxin than

a radiation toxin. So since they work primarily with uranium in this industry and you're routinely monitoring urine for uranium concentrations, it would be reassuring to know what your thresholds are and what the summary data is relative.

You always provide the radiation dose below the 50 mSv per year, so why don't we have the same information with regard to chemical toxicity for urine concentrations because you do monitor it, but I don't see any of that data in the CMD. And I'm not sure what the threshold levels are.

MS. DODKIN: Thank you, Dr. Demeter. And that's -- I understand the question.

So Cameco does have their action levels in place where they are monitoring the concentration of uranium in urine, as I outlined earlier. That information is provided to CNSC staff through the annual compliance reports. We also get indicators if there is an action level exceedance related to concentration of uranium in urine.

What we do in turn -- so just to step back. So all of that information is provided in

Cameco's annual compliance reports. So within the annual compliance reports, Cameco does provide details on the number of urine samples that were analysed, the numbers that are exceeding their different threshold levels, including the action levels, if that might be the case. And then, in turn, the committed effective dose is derived from the sample data. And that is what we, in turn, the CNSC, report to the Commission as part of the effective dose statistics.

So to take your point, the information is available through Cameco's annual compliance reports, and the CNSC can definitely take that back and look at presenting this data to the Commission if there is interest in future reports.

MEMBER DEMETER: Thank you, yeah. I would appreciate a summary of the urinalysis results relative to renal toxicity, versus radiation toxicity, because this is primarily a chemical toxin to the kidneys.

THE PRESIDENT: Okay. Thank you, Dr. Demeter.

Ms. Maharaj?

MEMBER MAHARAJ: Actually, I do have a couple of follow-up questions with respect to this issue around testing, and perhaps Cameco can answer this question.

We've talked about urinalysis but there's also a reference to testing lung count, and I hope we're not just testing to make sure everybody has two. So I'm confused about what lung count is and what are we looking for there?

MR. MOONEY: Thanks for the question. It's Liam Mooney for the record. I'm going to ask Tom Smith to describe the lung count, and you're right, it is more than just ensuring everyone has both lungs.

MR. SMITH: Tom Smith for the record. Cameco has a robust testing program. Our employees routinely submit samples to look for uranium in urine, and at the Port Hope Conversion Facility we look at another parameter, which is fluoride.

And Commission Member, lung counting is a device whereby an employee that is a nuclear energy worker is -- on some periodic frequency is put

in a lung counter which has four detectors, two that point on the front of the chest, two the point behind the chest. And we put them in there for a period of time, and those detectors are very, very sensitive, and what we're looking for is uranium in the lungs. And a combination of the uranium in urine program and the lung counting program allows us to estimate their dose.

MEMBER MAHARAJ: So it's essentially a second layer of uranium exposure testing?

MR. SMITH: Correct.

MEMBER MAHARAJ: Got it. Okay. Thank you.

And then with respect to the same concept and area, you've reported that there were 12 out of 15 of your reportable incidents that occurred in a time period between 2012 and 2014. And this is in the SCA with respect to radiation protection. And I wondered if you could clarify a couple of points.

There were 33 reported incidents in the entire licence period, half of which occurred in this two-year time period. So I'm wondering what

happened. And the submission states that the other three exceedances related to whole body or skin doses which were non-personal in nature. So if you can explain the big clump in 2012 to 2014, and then as well just if you can give me a bit more detail about these three additional exceedances that were high but not personal? What was happening there?

MR. MOONEY: Sure. It's Liam Mooney for the record.

I'll ask Laurie Cassidy to provide a summary of that clump, as you say, of events, to 2014, and some corrective actions that we put in place based on some review of the events and some commonalities that were identified.

MS. CASSIDY: Laurie Cassidy for the record.

So a majority of the clump that you're talking about with regards to non-personal exposure was related to dosimeter badges that were exposed out in the field that were not currently being worn by an employee because it was lost.

Again, at the time it's something we

evaluate to determine exactly what the cause of the loss of the dosimeter badge was, again, do an investigation and determine whether it's something that we need to go to the CNSC to determine whether we can do a dose adjustment. So that would be the majority of that clump that you're discussing.

Other events with regards to dosimeter badges -- excuse me, to the exposures, were due to the events such as the drum pressurization that we just discussed.

MEMBER MAHARAJ: So the conclusion is these 12 or 15 incidences were not actually toxic events to people, they were a result of some other factors, where badges were not associated with the person who may or may not have been exposed? The exposure was unrelated.

MS. CASSIDY: Laurie Cassidy for the record. That's correct.

MEMBER MAHARAJ: Thank you.

MR. MOONEY: I think one thing I would add there is we did as our corrective action process requires, we investigated those events and implemented

corrective actions. So one of the things that stood out for me when we were talking about those events was looking at our training packages, about the use and storage of dosimeters, and some key points that need to be emphasized.

So not only was the training package updated, but also it's reviewed on an annual basis with all workers. So those non-personal events that Laurie talked about, there was a concerted effort to address that, and the issue has, I think -- as you can see the numbers after that period of time have dropped precipitously.

MEMBER MAHARAJ: Yes. Thank you.

THE PRESIDENT: Thank you.

Dr. Demeter?

MEMBER DEMETER: Thank you. I'm just going to shift gears a bit and talk about the financial guarantee, and I'm referring to staff CMD slide 38 and it says:

"CNSC staff assessed the proposed financial guarantee amounts and instruments and determined that

they meet the criteria of CNSC
Regulatory Guide G-206.”

And I'm noting that a new guide
was -- or a new RegDoc was published in January of
2021, RegDoc 3.3.1, relative to financial guarantees.
And I want to know why we're not meeting that
regulatory document in the eleventh month of 2021, and
if there are any significant differences in
conservatism between the financial guarantee
requirements of G-206 and 3.3.1 if we're not meeting
3.3.1.

MS. MURTHY: Kavita Murthy for the
record.

I'll ask Jocelyn Truong from the Waste
and Decommissioning Division to respond.

MS. TRUONG: Jocelyn Truong, Project
Officer in the Waste and Decommissioning Division.

So you're correct; the PDP was
reviewed against G-219 and G-206 at the time because
those were -- the new Regulatory Documents were not
published at the time. However, based on the current
PDP and the cost estimation, we don't expect any major

gaps with meeting RegDoc 3.3.1.

In the current submission, Cameco has considered all decommissioning activities from operation all the way to shut-down to release of regulatory control, and also the estimated costs for including contingency as well as escalation, inflation for the next five-year review period.

THE PRESIDENT: Thank you.

MEMBER DEMETER: Thank you.

I just wanted to specifically ask whether the boundaries around a letter of credit for GD-206 are the same around the boundaries around the letter of credit and its validity under 3.3.1 relative -- there's criteria for the letter of credit with a chartered bank under 3.3.1. I want to make sure those are the same criteria for 206.

Is it as conservative a document relative to the letter of credit?

MS. TRUONG: Jocelyn Truong, Project Officer in the Waste and Decommissioning again, for the record.

So validity of the criteria for the

financial guarantee letter of credit is the same in G-206 as well as RegDoc 3.3.1. In RegDoc 3.3.1, there is additional guidance for licensees in terms of the terms and conditions within the letter of credit, for example, or other financial instrument.

MEMBER DEMETER: So it's just as conservative, is what I'm hearing.

MS. TRUONG: Yes, that's correct.

THE PRESIDENT: Ms. Maharaj.

MEMBER MAHARAJ: Just a quick follow-up before Ms. Truong goes away on the financial guarantees. You mentioned that they are -- she's still gone.

THE PRESIDENT: She'll be there.

MEMBER MAHARAJ: Okay. You mentioned there's a five-year review period, but this licence application is for a 10-year extension. So how would a change in the financial guarantee amount attributable to whether it's design change or market escalation, whatever it is, how would that come before us again, or are we always going to be five years late?

MS. TRUONG: Jocelyn Truong, for the record.

No, we won't be five years late. So we expect if it follows the five-year review cycle, the next review period will probably be in 2025 or 2026. If there are any design changes, then we would expect an update to their preliminary decommissioning plan earlier. And normally, if it's only the change in the financial guarantee, this may come forward before the Commission in a hearing in writing, for example.

MEMBER MAHARAJ: Okay. Thank you.

THE PRESIDENT: A couple of quick questions for Cameco, and this is a follow-up to what Ms. Lloyd had raised.

Are your production amounts not reported and, if not, if you can just explain why. She wanted to know if it was a bit of a correlation between that and whatever the emission or the environmental monitoring results were.

MR. MOONEY: Liam Mooney, for the record.

As a publicly-traded company, we do have some confidentiality that we have to respect with relation -- in relation to our production centres. In some respects, Blind River does have a throughput and, in that regard, a fair bit of it comes from Cameco, but we do service other organizations, business organizations, as part of our model, and we would prefer to keep those numbers confidential.

THE PRESIDENT: Are they shared with staff just to confirm that they're within the limits?

MR. MOONEY: It's Liam Mooney, for the record.

Yes, there's a process for confirmation that we do not exceed our production limits at the facility.

THE PRESIDENT: Thank you.

Dr. Demeter.

MEMBER DEMETER: I just have one small comment for Cameco based on their presentation, slide 9. And I apologize if you noted this when you were presenting the slide. I might have missed it in all the discussions today.

But under May 2020, this is the COVID slide, it said, "We started UF₆ plant in Blind River", and I suspect you meant in Port Hope. I just want to make sure that no one thinks there's a UF₆ plant in Blind River. That's just a typo that I thought should be noted as a correction and, if I'm wrong, let me know.

MR. MOONEY: Yes. It's Liam Mooney, for the record.

So the May 2020, we restarted the UF₆ plant and the "in" is wrong, and Blind River Refinery as planned. So that's my bad.

I saw this presentation quite a few times. I probably should have caught that. So no, you're so 100 percent correct, Dr. Demeter.

THE PRESIDENT: And before we get rid of that slide, you know, November 2021 about implementing the requirements to be fully vaccinated, I just wanted to hear if there was any issue with getting that fully vaccinated in place.

MR. MOONEY: It's Liam Mooney, for the record.

That requirement actually just went live on November 15th. It's a pretty strong position that we've taken as an organization.

We've had strong performance in our Ontario operations. We've had some challenges in some of our other operations as well, and our executive team was very supportive of taking a position, and overall, I would say it has been well received.

It has also led to some issues, but I think that, again, it's fresh, and we're working through what it looks like for us organizationally, but it was a move that we talked about quite a bit. I know leadership from all the GMs and the HR superintendents up to the executive vice-presidents, lot of discussion on that. It's not a decision we made lightly, but one that I think we've seen the -- we have and will continue to see the benefits of that standard that we've put in place across the organization.

THE PRESIDENT: Thank you.

Dr. Demeter, back to you.

MEMBER DEMETER: I had no other

questions. I was just going to make a comment that I appreciated under the link to the ERA report all the human health studies which answered some of the questions that we discussed earlier about environmental risk and cancers in this region. So I did appreciate that link and being able to review that information.

THE PRESIDENT: Thank you.

Ms. Maharaj?

MEMBER MAHARAJ: I have a couple of questions that are more along the regulatory process side for staff with respect to the production capacity being authorized at 18,000 tonnes and then 24,000 tonnes, so perhaps I can just frame my question a little bit more coherently.

So I understand in 2012 there was an application or part of the application by Cameco was to increase production capacity to 24,000 tonnes and all of the work was done at that time to satisfy the Commission that that was an appropriate result. But since then, in the intervening nine or 10 years, Cameco has not utilized production to utilize that

additional capacity.

So my question is, Cameco is asking us to preserve that order, that capacity for them, but has there been any update or upgrading of the environmental work that supported that decision in 2012 or any of the other studies that supported that 2012 decision?

MS. MURTHY: Kavita Murthy, for the record.

The short answer is yes, there has been. The safety analysis report has to be updated every five years.

I will ask Mike Jones to speak to that and then, for the environmental assessment part, I'll ask colleagues from the Environmental Assessment Division.

So Mike Jones, please go ahead.

MR. JONES: For the record, my name is Mike Jones. I am a Program Officer with the Nuclear Processing Facilities Division.

So related to the production increase referenced in the CMD, as you already mentioned, this

was discussed and a decision was made in the 2012 hearing related to increasing the production from 18,000 tonnes to 24,000 tonnes of uranium as uranium trioxide. And as part of that process, when CNSC provided their recommendations in the CMD to the Commission, we had based it on a number of factors.

One of them was that the original application to increase production was assessed under the *Canadian Environmental Assessment Act* in 2008, and it was determined that it was not likely to cause significant adverse environmental effects.

In addition, we required some additional information from Cameco at that time, and that was requiring Cameco to update their safety analysis report to reflect the requested production increase and, as well, we required them to have a third party do an assessment as to what changes will be required in facility and for them to provide a response to us as to how they were going to address the recommendations at the facility. So that was in 2012.

As part of their licence application,

we required that Cameco, first of all, provide an updated safety analysis report, which is part of their five-year review cycle, and that was reviewed by CNSC Staff and we found that it was still -- you know, appropriately captured the increase. And as well, we went back to them and asked them to provide an update to any technical changes that would be required to the plant, so the submission they gave in 2012 was updated to reflect what was remaining to be done at the facility.

And for both documents, there was no significant changes, so what we were reviewing in 2012 was still appropriate for 2020.

Thanks.

MEMBER MAHARAJ: But Mr. Jones, what about the differences between *CEAA 2012* and the *IAA*? And I'm thinking the easy one off the top of your head is gender-based analysis, but has the environmental foundation been upgraded to address the fact that we now have different environmental impact legislation?

MR. JONES: I'll ask Environmental Assessment Division staff to respond to that part of

the question. Thanks.

DR. KWAMENA: Good afternoon. Dr. Nana Kwamena, Director of the Environmental Assessment Division at the CNSC. So I will expand upon the information that Mr. Jones has already provided.

As he noted, that we did -- there was an environmental assessment that was conducted under the *Canadian Environmental Assessment Act 1992*, and he already provided you with the outcome of that process back in 2008.

So the EA or the Environmental Assessment is a planning tool. So there is no expiry date. So because the Environmental Assessment was conducted at that time, that the outcome of that remains valid. Therefore, if and when Cameco comes forward to us with a formal application to request this production increase, they would provide some information that CNSC staff would review and use to determine whether the bounds of that original environmental assessment continue to apply.

So in that case, you're right, the environmental review landscape has evolved since 2008,

but because there was an environmental assessment that was conducted and it was a planning tool, that assessment process has been conducted and unless there's some vast change in what Cameco proposes, that EA remains valid.

MEMBER MAHARAJ: I hear your answer. I'm just not sure that I'm really content with it, to be honest, because the foundation, the environmental impact, could be very different between 2008 and 2022. So how would that be addressed?

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

So there are other environmental tools that we can use to do this. So we have the Environmental Assessment, as I said, which provides that planning bounds. But we have the Environmental Risk Assessment and that is another tool that would be used to evaluate the environmental interactions between the facility and the environment, as well as the people, Indigenous communities and nations that live around the facility.

So if you want to get a little bit

more information about how we feed that process into that, that can also be provided by my colleagues. We also have environmental protection review reports. So we provided one for this particular hearing, but we will be reviewing these on a five-year cycle based on the Environmental Risk Assessment. So that will provide another mechanism by which we will be looking at the environmental interactions based on that updated environmental risk assessment.

It would also include updated information in terms of the technical assessments that we conduct, in terms of the inspections or compliance activities, as well as any independent environmental risk assessment. So there will be a number of tools that will provide additional information to give us information in terms of the interaction of the facility with respect to the environment.

MEMBER MAHARAJ: Thank you very much, Dr. Kwamena.

I guess my follow-up question on that is to Cameco. Cameco, 10 years ago you asked for a production increase, and you haven't acted on it. Why

should we continue that order now?

MR. MOONEY: It's Liam Mooney for the record. And I'm going to ask Dale Clark to provide a little sense in that regard.

I think it's important to understand that in 2011 there was a pretty significant event that impacted all of us involved in the nuclear industry which wasn't anticipated at the time we were applying for the production increase. And in that conversation, I think I'd go back to that I haven't looked at the inclusion list regulations. But you're right, the *Impact Assessment Act* has changed, but so have the triggers for what might require an assessment.

So, again, I think that this was assessed in a previous regime, that assessment was completed and deemed acceptable, so we think that this takes us into the realm of, as the CNSC staff has outlined, there may be some additional environmental information that's gathered. But overall, the assessment was completed in accordance with applicable law and is valued at this time.

MR. CLARK: Dale Clark for the record.

I will just expand briefly on that. I think that's been covered well.

I'll say that, first of all, we're very optimistic about the future. We're optimistic about the future of the industry, and we recognize that the, you know, the market and the conditions can change quickly as well. Certainly, the nuclear industry is playing a very important role in keeping Canada's emissions low. Certainly in Ontario, that's especially true, and in meeting Canada's future emissions targets. Lots of talk about that and the important role that the industry can play in meeting the Paris commitments and helping to battle climate change more broadly as well.

So we're very optimistic about the future, and we know from history that the conditions can change quickly, and so it's our role and responsibility to be ready. To be ready to respond and to be able to respond quickly and safely. And as Mr. Mooney said, we believe we've already -- we've presented the information, we've done the assessment.

It has gone through the assessment process to demonstrate that the change that we proposed can be done safely and that we can continue to operate the site safely. And so, you know, it's our aim to be ready to be able to expand production if and when that opportunity arises.

So we think that's important for Blind River, and for the nuclear industry, and for Canada, quite frankly, as we play an important role in that industry.

MEMBER MAHARAJ: Thank you.

THE PRESIDENT: I have a question for Mr. Dorscht of the Ministry of Environment, Conservation and Parks. You've been waiting very patiently.

You've heard from a few intervenors about concerns they have around monitoring, sampling, availability of results, independent monitoring. From Northwatch it was whether the province had done any more recent sampling. And I just wanted to give you an opportunity to respond, or if you had any response to what you have heard and any suggestions, feedback,

thoughts that you want to share with the Commission on this.

MR. DORSCHT: Sure, thanks. Ron Dorscht for the record.

Just to respond to Brennain's question about whether there had been additional sampling done since 2012. There has not been. I can let her know, and the Commission know, that our Ministry does plan to do another set of sampling in 2022. The reason why it wasn't a five-year interval because the report -- the conclusion of the last report, 2012, it did say that there was -- deposition is low and there's been no measurable increase in silicon uranium concentrations. That any difference was attributed just to variability that you would expect, not due to deposition. That's why there's a bigger gap than previously.

THE PRESIDENT: Thank you very much. So from your perspective, nothing that you have heard today has caused you any concerns?

MR. DORSCHT: That's correct.

THE PRESIDENT: Thank you.

And Mr. Kim, if you're with us, anything you wish to add from ECCC?

MR. KIM: Thank you, Madame President.

I think the questions regarding the CCME guidelines and the climate and flooding, I think those were the ones that we wanted to be able to answer and we have, I think. So I thank you and I have no further comments.

THE PRESIDENT: Thank you very much. One last go. Dr. Demeter, anything else?

MEMBER DEMETER: No. Thank you.

THE PRESIDENT: Ms. Maharaj?

MEMBER MAHARAJ: No, Madame Velshi.

THE PRESIDENT: Perfect. Thank you very much.

So before concluding the hearing, I'll turn the floor to Cameco Corporation for any final remarks you wish to make --

MR. LEBLANC: If I may, Madame le President, I think we had Ms. Murthy wanted to add a statement prior to the final remarks by Cameco.

THE PRESIDENT: Okay, Ms. Murthy, sorry if your hand was up. I missed it.

MS. MURTHY: Thank you. No, my hand was not up. I had sent a message to Mr. Leblanc.

But this isn't a final statement. It's just to address Dr. Demeter's question about uranium toxicity. Dr. Demeter, there is newly published regulatory document 2.7.2 Volume 1, ascertaining occupational dose. Appendix F of this document has some CNSC guidance on the toxicity of uranium compounds. I just wanted to read that into the record.

Thank you.

MEMBER DEMETER: Excellent. Thank you.

THE PRESIDENT: Okay. So we'll turn to Cameco Corporation for any final remarks. Mr. Mooney, over to you, please.

MR. MOONEY: Thank you, President Velshi, and thank you for the other Commissioners and staff.

It's been a long day, so I don't mean

to keep us too much longer, particularly because it's later there in Ontario.

But I just wanted to end by closing with some key messages that I thought we need to emphasize, and that's throughout the licence term, the Blind River Refinery operated safely and met performance expectations regarding the health and safety of persons and protection of the environment.

Our routine environmental monitoring results, Environmental Risk Assessments have demonstrated that the environment and human health remains protected. There were no releases that could have harmed human health or the environment. We have robust engagement processes and maintain high levels of support for our industry.

The programs, resources, and measures in place at Blind River ensure the health and safety of persons as well as the environment. Our performance during the current licensing term has demonstrated that we are qualified to carry on licence activities for the proposed 10-year licence term.

With that, I'd like to again thank you

for your time and all of the good questions today, and hopefully the experience was enjoyable on your side.

THE PRESIDENT: Thank you, Cameco staff. Thank you, CNSC staff. Thank you, all of the intervenors for your participation.

Marc, I will turn it over to you for any closing remarks.

MR. LEBLANC: Thank you, Madame le president, and thank you to all the people behind the scenes that have made it happen from the interpreters, to the transcribers, to the person responsible for web cast, to secretariat and legal services staff, and our staff in I.T. for a great job. Thank you.

So this brings to a close the public hearing on Cameco Corporation's application. With respect to this matter, the Commission will confer with regards to the information under its consideration and then determine if further information is needed, where the Commission is ready to proceed with a decision. We will advise accordingly.

Merci, bon soir.

THE PRESIDENT: Bye, everyone.

--- Whereupon the hearing concluded at 5:49 p.m. /

L'audience s'est terminée à 17 h 49