

Canadian Nuclear
Safety Commission

Commission canadienne de
sûreté nucléaire

Public hearing

Audience publique

November 8th, 2016

Le 8 novembre 2016

Town Park Recreation Centre
Gymnasium
62 McCaul Street
Port Hope, Ontario

Town Park Recreation Centre
Gymnase
62, rue McCaul
Port Hope (Ontario)

Commission Members present

Commissaires présents

Dr. Michael Binder
Mr. Dan Tolgyesi
Dr. Sandy McEwan
Ms Rumina Velshi

M. Michael Binder
M. Dan Tolgyesi
D^r Sandy McEwan
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Secretary:

Secrétaire:

Mr. Marc Leblanc

M. Marc Leblanc

General Counsel:

Avocate générale :

Ms Lisa Thiele

M^e Lisa Thiele

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Port Hope, Ontario / Port Hope (Ontario)

--- Upon commencing on Tuesday, November 8, 2016

at 2:04 p.m. / L'audience débute le mardi

8 novembre 2016 à 14 h 04

Opening Remarks

M. LEBLANC : Bon après-midi. Good afternoon, ladies and gentlemen. Bonjour à tous. Welcome to the public hearing of the Canadian Nuclear Safety Commission.

My name is Marc Leblanc, I am the Commission Secretary and I will just open up with a few remarks.

The public hearing is regarding the request from Cameco Corporation to renew the Nuclear Fuel Facility Operating Licence for the Port Hope Conversion Facility for a 10-year period.

During today's business we have simultaneous interpretation. You have devices for interpretation services at the reception desk. La version française est au poste 2 and the English version is on channel 1.

We would ask that you please keep the pace of your speech relatively slow so that the interpreters

have a chance to keep up.

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.

We have transcripts. Those transcripts are in the official language that is used by the presenters and are not translated. Those transcripts will be available on our website probably late next week or the following week.

To make those transcripts as meaningful as possible, we would ask that everyone identify themselves before speaking.

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

Monsieur Binder, président et premier dirigeant de la CCSN, will preside over this public hearing.

Mr. President...?

THE PRESIDENT: Thank you.

Good afternoon and welcome to the public hearing of the Canadian Nuclear Safety Commission.

First of all, on behalf of the Commission, I wish to tell you how delighted we are to be here in

beautiful Port Hope. It's always a great pleasure to come here and walk around and try some of the bars and restaurants. So we're looking forward to the next couple of days, we have a couple of other places to visit and taste.

My name is Michael Binder, I am the President of the Canadian Nuclear Safety Commission.

I would like to introduce the Members of the Commission that are with us here today.

On my right is Monsieur Dan Tolgyesi; on my left are Dr. Sandy McEwan and Ms Rumina Velshi.

We have heard from our Secretary Marc Leblanc and we also have with us Ms Lisa Thiele, Senior General Counsel to the Commission.

So before we start, I would like to make a few introductory remarks.

First of all, I would like to thank CNL for their interesting and informative tour of Port Hope and Port Granby waste facilities that we spent the morning at.

As you know, we are in Port Hope for the next three days to consider the written submissions and oral presentations from a large number of citizens and organizations who wish to express their opinions in the context of the Cameco Port Hope Conversion Facility Renewal Hearing as well as on meeting items on Thursday regarding

the Port Hope Area Initiative and the 2015 Regulatory Oversight Report For Nuclear Processing Facilities.

Therefore, prior to getting this hearing under way, I wish to emphasize that, as you well know, the Commission is a quasi-judicial administrative tribunal and that consequently it is independent from any political, governmental or private sector influence. In fact, Commission Members are independent of one another and also independent of the CNSC staff.

Interventions filed for this hearing include the recommendations to the Commission. CNSC staff also make recommendations to the Commission, but it is the Commission Members who will render a decision based on all evidence presented in the context of the hearing process.

The Commission Members are appointed by the Governor in Council on the basis of their achievements in their respective fields of endeavour as well as their excellent reputation among their peers. Their mandate is simple: ensure that the use of nuclear is done in a manner that protects the environment as well as the health, safety and security of the workers and the public.

I would also like to emphasize that the CNSC has no economic mandate and will not base its decisions on the economic impact of a facility. Let me repeat this. It is the health, safety and security of the

public and the protection of the environment that guides its decisions.

Finally, as I stated earlier, the Commission is an administrative tribunal. It is willing to conduct this hearing in the affected community and to provide a forum where members of the public can express their views on the matters at hand.

As the Commission is a tribunal and wishes to hear all oral presentations and ask as many questions as is deemed necessary on these issues, we ask that everyone respect the decorum of a tribunal setting and assist with the orderly civil and respectful conduct of these proceedings.

The Commission will not tolerate inappropriate behaviour and will take necessary measures to ensure the orderly conduct of the proceedings in the same way it does for all other proceedings it conducts in Ottawa and in communities. Thank you.

CMD 16-H7.A

Adoption of Agenda

THE PRESIDENT: So with these remarks I would like now to call for the adoption of the agenda by the Commission Members, as outlined in the Commission

Member Document 16-H7.A.

Do I have concurrence?

So for the record, the agenda is adopted.

Marc...?

MR. LEBLANC: Just a few very short additional remarks.

So the Notice of Public Hearing and Participant Funding 2016-H-03 was published on March 30th, 2016.

The submission from Cameco and the recommendations from staff of the CNSC were filed on September 2nd, 2016.

The public was invited to participate either by oral presentation or written submission. October 3rd, 2016, was the deadline set for filing by intervenors. The Commission received 44 requests for intervention.

October 26th was the deadline for filing of supplementary information and presentations. We note that presentations were filed by Cameco, CNSC staff and a number of intervenors.

Participant funding was available to intervenors to prepare for and participate in the hearing. The Commission received four applications for funding.

A Funding Review Committee, which is independent of the Commission, reviewed the applications

and funding was provided to the four applicants.

All the documents presented today and to be presented tomorrow are available at the reception, either on CDs or in paper format, as well as the Commission Members' biographies.

Mr. President...? Oh, still me. A bit longer than I expected.

Before dinner -- just to give you a sense of how the days will unfold. So we will hear from 2:00 -- well, from 2:10 to 4:00 we will hear the presentations by Cameco Corporation, CNSC staff and the Canadian Nuclear Laboratories and Cameco. Sorry, Cameco, CNSC staff and the CNL today.

The presentations by intervenors will resume after dinner, at 7:00 p.m., but we will have also interventions from 4:00 thereon. So the first interventions will be at 4:00 and then we will resume after dinner.

Time permitting, the Commission will also review written submissions at the end of each day, including this evening, and when oral presenters are not available or if there is time between oral presentations.

These written submissions have already been read by the Members and we will address each of them before the close of this hearing.

Twenty-six intervenors are scheduled to present orally. While the oral presentations are limited to 10 minutes, Commission Members will have the opportunity to ask questions after each presentation. There is no time ascribed for the question period following each presentation.

The Commission Members have read all the submissions and intervenors are encouraged to use their oral presentation time to highlight key points rather than simply reading previously submitted written materials.

Your key contact persons will be Ms Line Quevillon and Ms Johanne Villeneuve from the Secretariat staff and you will see them going around or at the back of the room if you need information regarding the timing of presentations or other information.

To begin, we will first hear the presentations by Cameco and staff. After, we will proceed with the presentations by intervenors who have been permitted to present orally.

Commission Members will have the opportunity to ask questions, as I mentioned earlier, after each intervention and will conduct general rounds of questions after all the interventions have been considered.

Mr. President...?

THE PRESIDENT: Thank you, Marc.

Before we proceed with the presentations, I want to note that there are representatives from other governmental departments joining us for this hearing, available to answer questions after the presentations.

In attendance today we have a representative from Environment and Climate Change Canada, Ms Nardia Ali, and she will be available to answer questions once we get into the written material and the oral presentation.

CMD 16-H8.1 / 16-H8.1A

Oral presentation by Cameco Corporation

THE PRESIDENT: So I would like to start by calling on the presentation from Cameco Corporation on the Port Hope Conversion Facility as outlined in CMD 16-H8.1A.

I understand that Mr. Clark will make the presentation. The floor is yours.

MR. CLARK: Thank you.

So for the record, my name is Dale Clark, I am Vice President of Cameco's Fuel Services Division and I sat at this table for the relicensing hearing five years ago as the General Manager of the Port Hope Conversion Facility.

On behalf of Cameco, I welcome the Commission to Port Hope and Northumberland County. We not only work here but most of us live here, play here and are raising our families here. Holding these hearings in Northumberland County gives our community, and even Cameco employees, the opportunity to participate in and better appreciate the relicensing process. So whether you have been here before or this is your first occasion for a visit, I hope you have time to take in this beautiful community and see why we are very proud to be here.

Collectively, the people who sit at the tables in front of you today have more than 100 years of experience in various industrial settings, much of it in the nuclear industry.

As a chemical engineer, I managed large chemical manufacturing facilities in the U.S., the U.K. and Estonia before joining Cameco in 2008.

In a moment I will turn the presentation over to Mr. Dave Ingalls, the current General Manager of the Conversion Facility.

Also a chemical engineer, Dave first joined Cameco in 1994 as a co-op student while studying at the University of Waterloo. Prior to becoming General Manager, Dave was Director of Compliance and Licensing for the Fuel Services Division.

To introduce the others sitting here, Liam Mooney has been Cameco's Vice President of Safety, Health, Environment & Quality and Regulatory Relations for more than five years. Liam received his Juris Doctor Degree from the University of Saskatchewan in 1998 and joined Cameco as a Senior Legal Advisor in 2005.

Rebecca Peters is Superintendent, Special Projects for the Fuel Services Division and is responsible for regulatory relationships, licensing, environmental assessment and implementation of standards and regulatory documents. Rebecca holds a Master's of Science in Toxicology and held a teaching position at the University of Ontario Institute of Technology prior to joining Cameco in 2005.

Shane Watson is Cameco's Program Manager for the Vision in Motion project. A professional engineer, Shane has been with Cameco for 10 years and is leading the planning, development and execution of this large-scale cleanup and remediation project being undertaken at the conversion facility site.

These individuals and their experiences are important assets to ensure Cameco continues to operate safe, clean and reliable operations and I am very proud to call them colleagues.

Thank you again for being here and I will

now turn things over to Dave Ingalls.

MR. INGALLS: Thank you, Dale and Members of the Commission. For the record, my name is Dave Ingalls and, as Dale mentioned, I am the General Manager of the Conversion Facility and responsible for all elements of its operation.

To complement the detail provided in our application, Commission Member Documents and other submissions, I am pleased to provide the Commission with a high-level overview of our strong operating performance and commitment to the future of our operation and community.

Before we start, I would like to give you a brief description of my facilities operations.

The Port Hope Conversion Facility supplies the world's reactor fleet with uranium conversion services needed to generate one of the cleanest sources of electricity available today. We receive nuclear grade uranium trioxide for conversion to either uranium hexafluoride (UF_6) or uranium dioxide (UO_2).

UF_6 is exported internationally for further processing and is used in light water reactors around the world. Cameco's UF_6 conversion facility is one of only two such plants in North America and one of only three in the Western world. UF_6 production represents 80 percent of our licensed production capacity.

We are also licensed to produce ceramic grade UO_2 which represents 20 percent of our licensed production capacity.

Our site plays a prominent role in providing clean energy, producing 20 percent of the world's UF_6 conversion capacity here in Port Hope. One UF_6 cylinder provides enough fuel to power a city of 90,000 people for an entire year. To put that into perspective, that is enough fuel to power every home, business, school, doctor's office and hospital in a community the size of Northumberland County.

Our UO_2 plant is the world's only commercial supplier of UO_2 conversion services for CANDU nuclear reactors. This means that fuel processed here is in every CANDU reactor in the country, accounting for approximately 60 percent of all power generated in Ontario and 15 percent of all power generated in Canada.

We are very pleased to share with you and the community the progress we have made during the licence period.

The conversion facility currently has a five-year operating licence that is set to expire at the end of February 2017. As you have seen in our application, we are requesting a 10-year licence renewal and minimal changes to our activities. Our request is to maintain the

current production limits of 2,800 tonnes uranium as UO_2 and 12,500 tonnes uranium as UF_6 , with a daily limit of 45 tonnes.

We also request that the CNSC continue to authorize Cameco to process and store various natural, depleted and enriched uranium compounds.

Additionally, we are asking that references to old production activities be removed from our licence conditions. This would include removal of references to the North UO_2 plant as a UO_2 production facility, the removal of references to the metals plant and metals production as an activity authorized under the licence.

Currently, Cameco is authorized to carry out cleanup, decontamination, demolition and remediation activities, including those related to the Vision in Motion project. However, we are requesting that these activities that are within the site's current licensing basis be described in our Licence Conditions Handbook.

With respect to our 10-year licence, our reason for requesting a longer licence term is twofold.

First, our strong operating performance in all safety and control areas demonstrates our ability to consistently carry out future activities safely and reliably. Second, a 10-year licence period allows us to

effectively implement the Vision in Motion project, which will make significant improvements to our waste management and environmental protection programs.

Finally, Cameco is requesting approval of an updated financial guarantee submitted as part of our preliminary decommissioning plan. The guarantee, which is an increase of \$26.9 million to a total of \$128.6 million, is based on the cost estimate that was updated in 2015 in accordance with CSA standards and guidelines and accepted by CNSC staff in 2016.

I am proud to have the opportunity to discuss the basis for these licensing requests.

Our facility has demonstrated strong performance over the current licence period, confirming that we are qualified to carry out the activities permitted under our operating licence. Cameco is delivering on its commitments to maintain safe operations that protect the health and safety of our employees and the public.

We have demonstrated ongoing environmental responsibility and have been effective at maintaining reliable operations while meeting security requirements and safeguards obligations.

Today, I will elaborate on how we have performed in key areas and discuss our commitment to the future of both the site and the community.

Within the requested licence period of 10 years, we will continue our current licensed activities and carry out Vision in Motion. This project will make significant improvements to the site and deliver on our commitment to end the history of legacy waste left by the former operations of Eldorado Nuclear.

We place a high value on public engagement, as demonstrated by the extensive public consultation process undertaken under the Vision in Motion planning stages. Our transparent public information program has helped us earn the community's support for our operations.

As one of the most trusted sources of information about our operations, hundreds of Cameco employees volunteer in the community to build important partnerships and lasting relationships.

We believe that the fundamental element of a safe, clean and reliable operation is a comprehensive and well-established worker protection program. Cameco's safety, health environment and corporate health and safety program provide direction for site programs and procedures.

Five key principles and beliefs drive the health and safety programs: that safety is our first priority; that we are all accountable for safety; that safety is part of everything that we do; that safety

leadership is critical to Cameco, and that we are a learning organization.

While compliant with all safety and health-related regulatory requirements, we have established shared safety objectives, implemented corporate standards, and continue to improve ways to assess and manage risk.

Through our Cameco incident reporting system, we capture significant safety incidents and see them through to the verification of completed corrective actions.

In the next few slides, I will give details behind what I call safety highlights during the licence period. I believe these best exemplify the spirit of how we have lived up to our principles and how our people have gone above and beyond to contribute to our strong performance.

In my view, Cameco's employees are the best in the industry. The strides we have made at our facility are only possible through the hard work of our people. It is their dedication to excellence and a commitment to safe, clean and reliable operations that are reflected in each accomplishment we share today.

A great example is what we call our safety charter. The conversion facility safety charter is a document that expresses our collective sense of safety

values and direction, and our general commitments to health and safety. It was created by the employees for all employees.

It is used as a cornerstone for health and safety planning and permeates our work ethic on site and, ideally, at home as well.

The charter has been endorsed by the conversion facility's employees and is displayed in our main lobby for everyone to review. The charter states, in part:

"I will watch out for my co-workers as I would my own family. I will agree to work safely and to look out for the safety of my fellow worker. And I believe if I speak out, I can make a difference."

This is a great source of pride for our organization and a foundational step on our journey to continually improve health and safety.

In another step on our safety improvement journey, we established what we call the CSSC, or Conversion Safety Steering Committee. The CSSC is representative of all employees from all areas of the facility.

The committee reviews and discusses

matters involving occupational health and safety policies, procedures and programs. What sets it apart from our previous, more traditional approach is the creation of safety sub-committees. Focusing on proactive improvements, the sub-committees ensure greater site involvement.

With all employees involved, every safety incident is investigated without delay. A CSSC member is involved in every investigation and documents all investigations and corrective actions in our Cameco incident reporting system.

Our site has -- also celebrates proactive safety improvements called Safety Wins. Employees proactively identified, resolved and celebrated more than 250 Safety Wins in just the last two years.

The CSSC and our employee-led approach to safety encourage cooperation and have created a more unified and proactive approach to safety.

Creating the CSSC and the safety charter were important steps for our organization. Under our licence, we are required to have a management system that establishes the processes and programs required to ensure the conversion facility operates safely, continuously monitors its performance and fosters a healthy safety culture.

In November of 2015, we underwent a

detailed safety culture assessment. This gathered and analyzed our employees' perceptions of the gap between their expectations for safety and their experience. Overall, the assessment indicated our safety culture is improving.

As you can see on this slide, employees identified several high level strengths. Other key findings indicated we should increase our focus on human performance, increase -- ensure employees are held accountable for their actions and ensure we are consistently reinforcing high standards at all times.

In response to these findings, we have developed an action plan. This feedback tells us that we are going in the right direction. It tells us that our actions are translating into meaningful impacts on our employees. Not only are our employees confident we all share in a commitment to safety, but they know they can get involved in finding solutions.

We have the foundation of a good safety culture and our strengths set the stage for us to take it to the next level.

To further enhance evaluation of our safety program, we measure our Total Recordable Incident Rate, or TRIR. TRIR is a tool to measure the frequency of less severe injuries in the workplace. This is developed

by calculating the number of incidents requiring medical treatment or restricted per 100 employees per year.

This allows us to compare safety performance year over year and identify areas for improvement. The lower our TRIR, the better the safety performance.

As this slide shows, our TRIR has decreased 58 percent since 2012. With the significant drop in TRIR, we are confident the focus on safety has dramatically improved safety performance during the current licence period.

On a final note on safety, thanks to the efforts of our employees, I'm proud to share recognition we received both internally and externally.

During the licence period, we have had our safest years of operation ever recorded at the facility. In 2013, our employees were recognized for their safety performance with a corporate Mary Jean Mitchell Green Safety Award presented annually to a Cameco site in recognition of its safety performance.

In 2015, United Steel Workers Locals 8562 and 13173 were honoured at the Steel Workers National Health, Safety and Environment Conference with the A.Q. Evans Award for outstanding accomplishment in occupational health and safety.

This demonstrates the shared -- this demonstrates, sorry, the strength of a shared commitment between our management and our union to work collaboratively on keeping safety as our highest priority.

Our ultimate goal is zero injuries. Until there are no injuries to any employee on the job, we will always strive to be better.

Another important element of our safety operations is our robust radiation protection program. During the current licence period, we have not exceeded any CNSC limits with respect to radiation protection.

This slide shows the total effective dose to our employees. The total effective dose consists of three components; external whole body dose, internal dose to the lung and internal dose to the kidney.

The red line indicates the annual regulatory dose limit for employees, specifically nuclear energy workers, or NEWS. The annual effective dose received by NEWS at the conversion facility remains well below the regulatory limit.

The highest annual maximum dose to an employee was seven millisieverts, which is 14 percent of the regulatory limit. The average total effective dose to NEWS was approximately two percent of the regulatory limit.

From an environmental perspective, we have

also made significant improvements during the licence period. Through our environmental protection program, we identify, control and monitor all releases of radioactive and hazardous substances and effects on the environment as a result of licence activities to ensure we meet applicable provincial and federal requirements.

Air emissions monitored -- monitoring consists of source and ambient monitoring. Routine source sampling is ongoing, and includes sampling of the main UF₆ and UO₂ stacks. Over the course of this licence period, we have reduced UF₆ stack emissions by more than 50 percent. The maximum emissions at the site are a small fraction, nine percent, of the site's licence limit.

These results were in large part due to the installation of HEPA filters and a new scrubber, which was recognized company-wide with a 2015 Cameco Environmental Leadership Award.

Emissions at the UO₂ plant are continuously monitored. The maximum uranium emissions from the main stack at the UO₂ plant were a small fraction of the licence limit during the licence period.

Ambient air and terrestrial monitoring programs supported the stack-sampling program. Results of this monitoring were a small fraction of the applicable federal and/or provincial objectives, guidelines and

criteria.

We are proud to be the only convergent facility in the world that, to our knowledge, does not discharge any liquid process effluent to the environment. Non-processed liquid discharges from the facility include once-through non-contact cooling water, sanitary sewer, stormwater and groundwater. All of these discharges are monitored based on frequencies and parameters established in the environmental protection program.

We have implemented several improvements to the operations over the current licence period that enhances the site's environmental performance. Through our Vision in Motion project, which we will detail later in the presentation, we will make further enhancements to our stormwater system.

Groundwater is treated through an extensive pump-and-treat system, which significantly reduced loadings of key contaminant. Recovery rates from the pumping wells have significantly and steadily increased from 2009, the first full year of system operations. As of 2015, the average quantity of water collected daily has increased by more than 100 percent.

Enhancements in recovery volumes are a result of continual improvements to the well maintenance program, improved reliability of wastewater treatment plant

operations, and the 2011 pumping well expansion. Since its installation, the pump-and-treat system has had a positive environmental impact.

Physical upgrades to be made during the next licence period as part of Vision in Motion will benefit the environmental protection program. These upgrades will include physical works on the stormwater system, the addition of groundwater collection wells at the south end of the facility, source removal of subsurface contamination at the north end of the facility, a reduction in the footprint of the facility around the harbour, and landscaping to enhance flood protection at the facility.

Once Vision in Motion is completed, we expect that more than 98 percent of uranium will be captured by the groundwater management system.

As a result of our strong safety and environmental performance, we have demonstrated our ability to operate a safe, clean and reliable facility within the objective of our licensing basis. Throughout the licence period, CNSC staff has completed comprehensive reviews of the CNSC's 14 safety control areas, and we have received satisfactory ratings in all areas.

The performance of our equipment and reliability of our operations have a direct effect on our site safety performance. We have put great emphasis on our

operation reliability program during the licence period.

One of the fundamentals of this program is our move towards a predictive and preventive maintenance approach. Through this approach, our goal is to ensure our equipment is always available to perform its intended design function when called upon to do so.

Our corrective action process continues to mature and has become a more effective tool in driving continual improvement.

We have a well established waste management program. During the licence period, we have progressed a number of projects to reduce a volume of waste on site. Further, we have also developed robust recycling programs and introduced efficiencies in our processes that have and will continue to significantly decrease future waste generated at the site.

We are confident that the site's operating performance over the course of the licence period provides a strong basis for our licence request. Just as important as is past performance are our plans and commitments for the future. In the upcoming licence term, we will undertake a major site cleanup and renewal of the conversion facility known as Vision in Motion.

To provide some history, the project was first introduced in late 2002 and called Vision 2010.

Cameco conducted an extensive public consultation process throughout the planning stages of this project to ensure community awareness.

This project is a unique and timely opportunity made possible by the existence of the PHAI and their construction of a long-term waste management facility, or LTWMF.

The Vision in Motion project is an important opportunity to remove legacy waste from our site, make improvements to the conversion facility and to work with the PHAI and the Municipality of Port Hope to improve the waterfront for the enjoyment of the community.

We anticipate most aspects of Vision in Motion will occur over a four- to five-year period after the LTWMF is open to receive waste. As part of our cleanup program, we routinely undertake activities similar to those that will be carried out during the Vision in Motion project.

Within the licensing period we completed several cleanup projects. As pictured on the slide, we carried out a trial excavation in 2015 to collect data regarding subsurface condition characteristics. The information gathered is being used to help define the excavation approach for the project.

Also in the summer of 2015, we demolished

two buildings on the Centre Pier, which demonstrated our ability to carry out these activities safely.

As shown here, we have also successfully removed redundant equipment from underutilized buildings, again demonstrating our ability to execute these activities safely.

Through Vision in Motion, we will continue these cleanup activities.

Cameco has an allocation of up to 150,000 cubic metres of space in the LTWMF. This will allow us to transport legacy waste to the facility during its limited operating window to receive waste.

Utilizing this allocation of space, we will demolish a number of old or underutilized buildings on our main site and the Centre Pier and remove contaminated soils, building materials, stored waste and obsolete production equipment.

As indicated by the shading on the site map, soil remediation for Vision in Motion is being targeted to specific areas. These excavations and enhancements to our groundwater treatment system will significantly reduce our impact on the environment.

The changes being made through the Vision in Motion project will significantly increase public access to the waterfront, which has been a strategic priority for

the municipality for many years and identified as a priority through our community engagement.

With the Centre Pier becoming publicly accessible following completion of Vision in Motion, as well as a shift in the site's fence line around the turning basin, our footprint will be reduced by 20 percent. This will create seven acres of additional waterfront land, which will be returned to the municipality for future development.

We will also install flood protection barriers that will provide gamma, noise and visual shielding.

As you can see on this slide, the layout of the site will significantly change following the completion of Vision in Motion and the PHAI's work.

Vision in Motion is a significant commitment by Cameco. It allows us to take advantage of the allocated space at the LTWMF, ensure regulatory compliance and approval, and coordinate with community planning objectives.

Throughout the development of the project, we have provided the public with information through our community forums, newsletters, website and displays at the Port Hope Fair.

Relevant stakeholders and indigenous

communities identified as being potentially interested in the project were notified of public outreach activities and key milestones during the environmental assessment process.

We also worked very closely with elected representatives of the Port Hope Municipal Council to ensure the project was consistent with community planning objectives for waterfront redevelopment.

Dialogue, transparency and community engagement have been key to our Vision in Motion planning. We are excited, proud and look forward to the outcome. We believe our plan will increase the future viability of the site and also demonstrate our commitment to show responsible care for this community and its future.

While I have mentioned the extensive consultation and communication process that has been undertaken throughout the Vision in Motion project, we continue to demonstrate we are deeply committed to engaging in transparent dialogue. This commitment extends far beyond the work we do to communicate about one project.

Our public information program reflects our desire to foster open dialogue between the company and members of the community. In the future, we will continue to use this approach to engage and garner the support of our community.

We have hosted nine community liaison

forums during the licence period, welcomed many groups for tours of our facility and hosted an information display each year at the Port Hope Fair. This face-to-face outreach is complemented by information provided in our community newsletter, which is sent to every mailing address in Port Hope, our community website, and social media presence.

We believe our public information program is effective at keeping the public informed of our operations, and we are committed to continually improving this outreach. As an example, we shared more documentation than ever before over the course of this relicensing period. We have developed abbreviated reports to distil very technical information in our licensing documentation, studies and program overviews.

Cameco has retained outside expertise for the past 12 years to not only measure public opinion of the residents of Port Hope, but also the effectiveness of all elements of our public information program. More than 400 Port Hope residents were randomly surveyed about their perception of Cameco's operations in the community.

Full reports are posted on our website and some notable results from 2016's polling indicated that 8 out of 10 Port Hope residents thinks Cameco makes information about its operation in Port Hope

readily available to residents, 89 percent of Port Hope residents support Cameco's continued operations in Port Hope, and 85 percent of residents agree that Cameco does everything possible to protect people and the environment.

This high level of support is a reflection of the work we do to communicate with the public and reflects that the site's strong, safe performance has earned the support and trust of our key stakeholders.

This support also demonstrates the important role our employees continue to play as representatives of our company. Our employees take a leadership role in the community. Many of them run, organize, or volunteer at more than 60 fundraisers or community events we support. We are very proud to support the worthwhile organizations and programs that make this community great.

We are requesting a 10-year licence term, continued production of UF₆ and UO₂ at our current limits, and approval of our increased financial guarantee submitted through our preliminary decommissioning plan. We believe we have demonstrated through our performance that we are qualified to carry out the activities permitted under our licence.

The site's strong operating performance over the course of the licence period provides a convincing

basis for our licence renewal request. We are committed to the protection of the health and safety of our employees and the public, protection of the environment, meeting security requirements, and fulfilling safeguards obligations.

Thank you for your time, and we would be happy to answer any questions you may have.

THE PRESIDENT: Thank you.

I'd like to move now to the presentation from CNSC staff, as outlined in CMD 15-H8.A. I understand that Ms Tadros will make the presentation. Please proceed.

CMD 16-H8.A

Oral presentation by CNSC Staff

MS TADROS: Thank you, and good afternoon Mr. President and Members of the Commission.

For the record, my name is Haidy Tadros. I am the director general of the Directorate of Nuclear Cycle and Facilities Regulation.

With me today on my left are my colleagues Kavita Murthy and Mr. John Thelen to her left as well as Mr. Ben Prieur, senior project officers and inspectors of the same division. We are also joined by other CNSC colleagues familiar with this file and who are available to

answer any questions the Commission may have.

Our present presentation today will cover Cameco's application to renew the fuel fabrication operating licence for the Port Hope Conversion Facility, requesting authorization for continued operation for a period of 10 years.

Our presentation, identified as CMD 16-H8.A, provides a summary as well as highlights from CNSC staff's written submission found in CMD 16-H8.

We will begin by first summarizing the purpose of this hearing, following by highlights of the hearing interventions, an overview of the Port Hope Conversion Facility, a summary of CNSC staff's regulatory oversight of Cameco's facility as well as CNSC staff's assessment of Cameco's performance over the current licence period.

The proposed licence and draft licence conditions handbook will also be discussed, followed by CNSC staff's conclusions and recommendations to the Commission on the licence renewal request by Cameco for the Port Hope Conversion Facility.

Cameco's licence renewal application was submitted in November 2015 with a supplemental submission provided in August 2016. In their submissions, and as you've heard from Cameco today, Cameco has requested that

the Commission renew its operating licence for a period of 10 years to cover the activities they've just highlighted.

As a result of CNSC staff's review of the application as well as safe operating performance at the Port Hope Conversion Facility for the current licence period, staff recommends that the Commission issue Cameco a 10-year licence.

I will now pass the presentation over to my colleagues who will begin by discussing interventions for this proceeding.

MS MURTHY: Good afternoon, Mr. President, Members of the Commission. My name is Kavita Murthy and I am the director of Nuclear Processing Facilities Division, the CNSC division that is responsible for managing the regulatory oversight of Cameco's Port Hope Conversion Facility. I have been a regulatory program director at the CNSC for 12 years.

Notices of this public hearing were published on the CNSC's public website starting in March 2016. To support public participation in the regulatory review process, participant funding of up to \$50,000 was offered to intervenors through the CNSC's Participant Funding Program. Funding was awarded to the four groups listed on this slide.

CNSC staff and Cameco's Commission Member

Documents were made available to the public on September 4th. Twenty-five oral and 19 written interventions are included as a part of these proceedings for the licence renewal of Port Hope Conversion Facility.

Hearing interventions covered a broad range of topics, several of which are addressed in this presentation. Staff are prepared to respond to the Commission's questions regarding these as well as all other interventions associated with these proceedings.

Over the next few slides, I'll provide an overview of the location and layout of the Port Hope Conversion Facility, and I will discuss the primary operations carried out at this facility.

Cameco owns and operates three facilities in Ontario that are licensed by the CNSC. Cameco's Port Hope Conversion Facility, the scope of today's presentation, is located within the Municipality of Port Hope and is situated on the north shore of Lake Ontario, approximately 100 kilometres east of the City of Toronto.

Cameco's other two licensed facilities are the Blind River Refinery, located in Blind River in northern Ontario, and the Cameco Fuel Manufacturing Facility also located in the Municipality of Port Hope. The safety performance of Blind River Refinery and Cameco Fuel Manufacturing Facility are presented in Commission

Member Document 16-M43 and will be discussed on November 10th here.

The layout of the Port Hope Conversion Facility is shown on this slide. It consists of two sites in the Municipality of Port Hope. Site 1 is shown in the lower portion of the slide and it is the main site property at 1 Eldorado Place -- this and the Centre Pier property located at 1 Hayward Street. As shown in this figure, these two properties are separated by the Port Hope Harbour.

Primary facility operations are carried out at Site 1, including the uranium hexafluoride, or UF_6 , plant operations in Building 50 and the uranium dioxide, or UO_2 , plant operations in Building 24. Site 1 is also used for the storage of drums and cylinders of UF_6 and UO_2 product as well as the storage of various products, equipment, and drummed legacy waste.

Site 2, shown in the upper right portion of this slide, is located at 158 Dorset Street East in the Municipality of Port Hope. This site is used primarily for the storage of equipment and waste.

Cameco's current licence was issued by the Commission on February 28th, 2012, and is valid until February 28th, 2017. The licence authorizes the processing and storage of uranium compounds for the purposes of UO_2 and

UF₆ production. The licence also requires Cameco to remain within established production and release limits; control, monitor, and record releases to the environment; implement and maintain programs to ensure the health, safety, and security of workers, the public, and the environment; and implement and maintain a process for reporting compliance, performance, and reporting of events to the CNSC and to the public.

This simplified diagram on the slide depicts the UF₆ production process. In this process, UO₃ powder received from Cameco's Blind River Facility is pulverized and treated in fluidized bed reactors with hydrogen gas to produce UO₂. The UO₂ powder is subsequently reacted with hydrofluoric acid to form a uranium tetrafluoride, or UF₄, slurry. After drying and calcining processes, UF₄ in powder form is reacted with fluorine gas to produce UF₆ in a gaseous state. The fluorine gas used in this step is produced on site by dissociating hydrofluoric acid into hydrogen and fluorine gases. Next, UF₆ is condensed into a liquid and transferred into cylinders where it solidifies. And finally, the UF₆ product is exported for further processing into fuel for light water reactors.

The licence limit for UF₆ production is 12,500 metric tonnes per year, or 45 metric metric tonnes

per day.

The simplified diagram on this slide depicts the UO_2 production process. In this process, UO_3 powder is dissolved in nitric acid to produce uranyl nitrate. This solution reacts with aqueous ammonia to precipitate ammonium diuranate. The solids produced by this process are dewatered, dried, and reduced in a hydrogen environment to produce UO_2 powder. The UO_2 product is transported off site and used in the manufacture of CANDU reactor fuel.

The licence limit for UO_2 production is 2,800 metric tonnes per year.

In its application for licence renewal, Cameco has requested no changes to the existing production limits for UF_6 and UO_2 .

CNSC staff are recommending that the Commission update release limits for UF_6 and UO_2 plant operations and for gamma radiation and add a release limit for sanitary sewer discharges. No changes are proposed to the action levels associated with these limits.

CNSC staff's written submission, CMD 16-H8, proposed a sanitary sewer limit of 1,825 kilograms per year. At this time CNSC staff are recommending a revised proposed release limit, one that also takes into consideration chemical toxicity of uranium

to the public and sensitive species of aquatic environment. This recommendation is discussed in greater detail within this presentation.

In its application Cameco has outlined its plan for cleanup remediation and renewal work on its site, including the implementation of the Vision in Motion, or VIM, project.

A revised decommissioning plan, as well as an augmented financial guarantee of \$128,600,000 has been proposed. This value represents an increase of \$26.9 million from the existing financial guarantee and fully covers the cost of implementation of this decommissioning plan.

During the 10-year licence period requested, the licensee proposes to implement the Vision in Motion, of VIM project, which was described in great detail by the licensee. An environmental assessment under the *Canadian Environmental Assessment Act 1992* concluded that this proposed project is not likely to cause adverse environmental effects taking into account the mitigation measures identified in the environmental assessment comprehensive study report.

An EA follow-up program has been developed by the licensee in consultation with CNSC staff. CNSC staff are satisfied that the scope of this program will be

adequate for verifying any changes to the environment as a result of VIM project activities and will ensure that adequate controls are in place for the protection of the environment and the public during VIM implementation.

The VIM project will be carried out under existing licensed programs such as environmental and radiation protection programs, as well as existing site-specific clean-up programs to carryout remediation and renewal work. This includes mitigation measures identified as a part of the EA for this project.

I will now pass the presentation over to Mr. John Thelen who will speak to the CNSC regulatory oversight of the Port Hope conversion facility as well as CNSC staff's assessment of Cameco's performance during the current licence period.

MR. THELEN: Thank you. Mr. President and Members of the Commission, for the record my name is John Thelen, I'm an Inspector and Senior Project Officer within the Nuclear Processing Facilities Division of the CNSC. I'm also responsible for coordinating CNSC staff's technical evaluation of Cameco's licence renewal application.

The next few slides discuss CNSC's regulatory oversight of the Port Hope Conversion Facility. The CNSC has a robust regulatory framework in place to ensure the continued safe operation of licensed nuclear

facilities, including Cameco's Port Hope Conversion Facility. Regulatory oversight is provided by CNSC staff to ensure licensees operate in a safe manner in compliance with the requirements of the *Nuclear Safety Control Act* and associated regulations, as well as licence conditions and applicable regulatory requirements.

The CNSC verifies compliance through site inspections and the review of operational activities and licensee documentation. Licensees are required to report routine performance data and unusual occurrences. In addition, CNSC staff carryout investigations of unplanned events or accidents that occur at the licensed site. To compliment existing and ongoing compliance activities through the independent environmental monitoring program, or IEMP, staff collects samples of environmental media and analyze them in CNSC's analytical laboratory.

CNSC's approach to compliance includes activities to encourage compliance, verification activities to assess compliance, and graduated enforcement actions in cases of noncompliance.

Over the current licence period CNSC staff spent roughly 3,000 person days of regulatory oversight effort. Over this same period staff conducted 27 on-sight compliance inspections as well as numerous other site visits, meetings, and events involving CNSC technical

specialists.

The increased licensing effort in 2016, as noted on this slide, is a reflection of the effort associated with the reviews of documents submitted for this licence and staff's preparation for this current licence renewal process.

Inspections conducted by CNSC staff during the current licence period did not identify any safety significant findings. Findings are initially presented to the licensee at the end of the on-sight portion of an inspection in a preliminary report of facts and findings, followed formally by a detailed inspection report.

Wherever the CNSC inspection team identified improvements to Cameco's programs these are also provided in the form of recommendations in these reports. When a noncompliance is identified CNSC staff assess the significance of the noncompliance, determine the appropriate enforcement action, and relay this to the licensee in the detailed inspection report.

The implementation of corrective actions is continually monitored through to closure under regulatory oversight and is tracked in CNSC staff's using the regulatory information bank tool.

Cameco is required to notify and report to the CNSC of situations or events of potential safety

significance. For example, events that could lead to a serious adverse effect on the environment or serious risk to the health and safety of persons or the maintenance of security if no action is taken by the licensee.

Cameco has also implemented a public information program that includes a disclosure protocol. Under the requirements of this program, events and incidences of interest to its stakeholder community are disseminated to the public. Internally, Cameco uses its incident reporting system, or CIRS, to report, follow-up and trend incidents.

Externally, they submit compliance and performance reports to the CNSC and routinely report on the results of ongoing monitoring activities and submit these as compliance reports that cover a variety of safety-related topics to CNSC staff.

Event reports that are significant in nature or may be of significant public interest, are brought to the attention of the Commission during public meetings by CNSC staff. Cameco also publishes information about these events in compliance reports as well as key licence renewal documentation placed on its website.

CNSC staff also report annually to the Commission on licensees' performance in the form of regulatory oversight reporting. As stated earlier, a

separate Commission proceeding will be held in Port Hope at this venue in two days' time, during which CNSC staff will present the Regulatory Oversight Report for Nuclear Processing, Small Research Reactor, and Class 1B Accelerator Facilities for the reporting year of 2015. This presentation is identified as CMD 16-M43.A.

This slide summarizes the outcome of reporting over the current licence period. All worker doses and environmental releases were below regulatory limits during this period. There were 42 events reported to the CNSC staff by Cameco. I bring this value to the attention of the Commission, as the value on this slide should read 42 as is indicated in staff's written submission CMD 16-H8.

Of these events three were reported to the Commission during public proceedings and two events met the criteria of event initial reports, or EIRs, and were reported on June 19, 2014 and December 17, 2014. For all reportable events, Cameco followed up with corrective actions and causal analyses where appropriate.

Action levels provide early indication of a potential loss of control of the radiological protection or environmental protection programs. Exceedances require notification to the CNSC.

During the current licence period there have been a total of three instances where action levels

were reached. In the case of these three exceedances there was no impact on the health of workers, the public, or the environment, and Cameco developed an acceptable corrective action plan to address identified causes.

For the current licence period all events and exceedances were promptly reported to the CNSC and other relevant regulators, and none of these events or exceedances compromised the safety of workers, the public, or the environment.

As per its normal public notification process for Commission proceedings, CNSC staff informed the public about this hearing via CNSC's website, an email subscription list, social medial channels, and print advertisements in the local community. The CNSC also hosted an information session titled CNSC 101 in the Municipality of Port Hope in May of 2016.

This session provided those in attendance with an introduction to the CNSC and the work it does to ensure that nuclear facilities in the Municipality of Port Hope and beyond are safe, and how the public can participate in the licensing process.

CNSC staff returned to Port Hope in September of this year to participate in a local event where staff had the opportunity to meet many fairgoers and discuss our mandate as well as this hearing. Staff also

regularly communicate with representatives of the Municipality of Port Hope as well as environmental regulators, including Environment and Climate Change Canada, or ECCC, and the Ontario Ministry of Environment and Climate Change, or MOECC.

I will now turn our attention to CNSC staff's performance assessment of current operations at the Port Hope Conversion Facility.

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.

As detailed in CNSC staff's written submission, Cameco maintained a satisfactory rating across all SCAs during the current licence period.

To summarize, CNSC staff's evaluation of Cameco's performance for the current licensing period, as detailed in our written submission, Port Hope conversion facility programs have met regulatory requirements and are effectively implemented by Cameco. Worker doses and environmental releases have remained below regulatory limits and Cameco's performance has been satisfactory in all SCAs for the current licence period.

Staff will continue to monitor this performance through regulatory oversight activities, including ongoing onsite inspections and technical review of compliance reports as well as revisions to Cameco's programs and other relevant licensing documentation in order to continue to verify adequate protection for the workers, the public and the environment.

The following slides will provide a summary as well as highlights from staff's written submission, CMD 16-H8.

While staff's written submission covered all 14 SCAs for the current licensing period, the 10 SCAs selected and presented on the following slides were considered to be of particular interest to stakeholders, the public and the Commission.

The Safety Control Area (or SCA) Management System covers the framework that establishes the processes and programs required to ensure an organization achieves its safety objectives, continually monitors its performance against these objectives and fosters a healthy safety culture.

Cameco has a management system in place that meets regulatory requirements and staff monitor Cameco's implementation of this program through compliance verification activities. Onsite inspections during the

current licence period included verification of the operational readiness for restart after a shutdown, compliance activities associated with reportable events and verification activities associated with implementation of the Cameco Incident Reporting System, or CIRS.

Cameco has also committed to the full implementation of Canadian Standards Association (or CSA) N286-12, Management System Requirements for Nuclear Facilities, by the end of 2017.

The SCA human performance management covers activities that enable effective human performance through the development and implementation of processes that ensure a sufficient number of licensee personnel are in all relevant job areas and have the necessary knowledge, skills, procedures and tools in place to safely carry out their duties.

Cameco has in place a robust documented systematic approach to training, or SAT-based training system, and a training plan that meets regulatory requirements identified in CNSC REGDOC-2.2.2, Personnel Training.

While CNSC staff have concluded that Cameco's ability to manage human performance is satisfactory, the current licence period performance ratings have primarily focused on the human performance

management specific area personnel training. Other elements of this SCA have been examined in the context of inspections of other SCAs. Therefore, CNSC staff have recommended a new standardized human performance management licence condition.

The SCA safety analysis covers the maintenance of the safety analysis that supports the overall safety case for the facility. Under this SCA, the licensee is required to systematically evaluate all potential hazards associated with its operations and, in doing so, consider the effectiveness of preventive measures and strategies in reducing or eliminating the potential effects of such hazards.

Cameco maintains a safety report for the Port Hope Conversion Facility that has been found by staff to effectively identify facility hazards and items relied on for safety to control or mitigate onsite hazards. Cameco also maintains a fire hazard analysis report which complies with the requirements of the National Building Code of Canada, the National Fire Code of Canada and the National Fire Protection Association's requirements.

Cameco continues to maintain the nuclear criticality safety program for its site's operations. Enriched material stored at the Port Hope Conversion Facility is primarily related to legacy waste from past

operations and Cameco continues to look for a means for offsite safe disposal.

The SCA fitness for service covers activities that impact the physical condition of structures, systems and components to ensure that they remain effective over time. A requirement of this SCA is for the licensee to implement programs that ensure all equipment is available to perform its intended design function when called upon to do so.

Cameco has identified safety significant structures, systems and components at the Port Hope Conversion Facility and implemented a preventive maintenance program to ensure effectiveness of these structures or components over time.

As part of an onsite operational reliability program, in-service inspection or preventative maintenance are performed to ensure that safety significant structures, systems and components remain effective over time and Cameco's in-service inspection and testing program also applies to piping and vessels which are subject to deterioration as a result of the conditions in which they operate.

The findings are that there were no major equipment failures reported during the current licensing period.

Staff also routinely inspect records associated with Cameco's preventive maintenance program and, by doing so, have determined that the conduct of required maintenance at the required frequency has taken place.

In annual compliance reporting to the CNSC, Cameco summarizes all major work performed on systems and equipment to maintain their fitness for service. These reports are publicly available on Cameco's website.

The safety and control area radiation protection covers the implementation of a radiation protection program in accordance with the *Radiation Protection Regulations*.

Radiation exposures are monitored at the Port Hope Conversion Facility site to ensure compliance with CNSC's regulatory dose limits and with keeping radiation doses as low as reasonably achievable, or ALARA.

The majority of workers at Cameco have been designated as nuclear energy workers, or NEWS, in accordance with the *Radiation Protection Regulations*.

The chart on this slide shows the annual effective doses to onsite NEWS. The red line at the top of the chart represents the annual regulatory dose limit of 50 mSv for this class of worker. The maximum effective dose received by any worker in the current licensing period was

7 mSv. Throughout the current licence period, no nuclear energy worker's radiation exposure exceeded these CNSC regulatory dose limits.

Radiation dose to the public are estimated from annual atmospheric emissions, fence line gamma monitoring and groundwater releases.

As shown on this slide, Cameco's environmental releases outside of the facility over the licensing period have resulted in low doses, well below the regulatory limit of 1 mSv per year to members of the public.

CNSC staff are satisfied that Cameco has implemented and maintained an effective radiation protection program during the current licence period. Radiation doses received by individuals are monitored, controlled and maintained as low as reasonably achievable.

The SCA conventional health and safety covers the implementation of a program to manage workplace safety hazards and to protect personnel and equipment.

As shown in the table presented on this slide, the frequency of lost time injuries, or LTIs, remained low for the current licence period.

Cameco summarizes these and other information pertaining to maintaining a safe workplace in the annual compliance reporting to the CNSC, reports that

are publicly available on their website. They have implemented an effective health and safety program during the current licensing period and continue to demonstrate an ability to keep workers safe from occupational injuries.

The safety and control area environmental protection covers programs that identify, control and monitor all releases of nuclear and hazardous substances and effects on the environment from facilities or as a result of licensed activities. This includes requirements for effluent and emissions controls, the assessment and monitoring of the receiving environment as well as requirements related to environmental management system and environmental risk assessment.

This slide shows monitoring results of emissions to air compared to CNSC licence limits.

Airborne releases are set to ensure that no member of the public will receive a dose greater than 0.05 mSv per year, which is 1/20 of the public dose limit, and that the environment is protected.

Airborne release limits for fluoride and ammonia are also set at levels that are protective of workers, the public and the environment.

Additionally, the Ontario Ministry of Environment and Climate Change, or MOECC, issues an Environmental Compliance Approval, or ECA, that provides

assurances that airborne releases comply with provincial chemical toxicity requirements.

To summarize, air emissions continue to be effectively controlled and remain consistently below licensed limits for the current licence period.

Liquid releases of processed water are not permitted under the current licence issued by the Commission. Process water is evaporated at the site wastewater treatment plant. Non-processed waste water is released to the sanitary sewer and includes contributions from the powerhouse steam boiler and air compressor, laboratory instrumentation cooling water as well as site restrooms.

As part of its licence renewal application, Cameco submitted revised derived release limit, or DRL, and operational release limit, ORL, documents. These documents were reviewed and accepted by CNSC staff.

Releases to the sanitary sewer over the current licensing period are shown on this slide. CNSC staff had proposed a release limit of 1,825 kg a year for uranium in consideration of a radiological dose of 0.05 mSv per year to a member of the public. As mentioned earlier, staff recommend a revised proposed limit that will be discussed in greater detail in the recommendations portion

of this presentation.

Pictured here is the network of groundwater wells at Port Hope Conversion Facility's Site 1's main site. As discussed during Cameco's previous licence renewal hearing, actions taken to address uranium contamination in groundwater included the establishment of this network. There are a total of 12 groundwater capture wells in place as well as an additional 81 shallow and deep monitoring wells.

At present, Cameco evaporates all groundwater captured by the system, and overall, CNSC staff have found that Cameco's groundwater monitoring program, including groundwater capture had been performing as expected. The ongoing performance of this system is continually monitored and provides assurances that surface water quality is adequately protected.

Pictured here is a conceptual site model for the Port Hope Conversion Facility Site 1's main site, indicating site pathways to the public. An environmental risk assessment for the Port Hope Conversion Facility was submitted as part of the licence renewal application.

Staff are of the opinion that this assessment complies with CSA standard N288.6-12, Environmental Risk Assessments at Class I Nuclear Facilities and Uranium Mines, and based on staff's review,

we have concluded that ecological receptors as well as human health is adequately protected from facility operations.

Environmental monitoring results, including groundwater, surface water, soil and gamma exposure, are collected as part of Cameco's ongoing monitoring program and confirm that the public and the environment continue to be protected. The environmental monitoring program will also be updated using the results of the 2016 environmental risk assessment.

Cameco is also transitioning by the end of 2017 to full implementation of the requirements of CSA Standard N288.4-10, Environmental Monitoring Programs, and CSA N288.5-11, Effluent Monitoring Programs.

Staff conclude that Cameco continues to implement and maintain effective environmental protection programs for its facility.

The safety and control area emergency management and fire protection covers emergency plans and emergency preparedness programs that exist for emergencies and non-routine conditions. This SCA also includes the requirement for Cameco to have a comprehensive fire protection program to minimize the risk to the health and safety of persons and the environment from fire through appropriate fire protection system design, fire safety

analysis, fire safe operation and fire prevention.

Cameco's emergency preparedness measures met applicable CNSC regulatory and performance objectives, and staff monitor Cameco's implementation of this program through regular compliance verification activities. As will be mentioned later in this presentation, staff are also satisfied that Cameco has enhanced its emergency response capabilities in response to the Fukushima event.

Cameco is also committed to the full implementation by the end of 2017 of CNSC regulatory document REGDOC-2.10.1, Nuclear Emergency Preparedness and Response, as well as CSA Standard N393-13, Fire Protection for Facilities that Process, Handle or Store Nuclear Substances.

The safety and control area waste management covers internal waste-related programs that form part of Cameco's operations at the Port Hope Conversion Facility up to the point where the waste is removed from the facility to a separate waste management facility. This area also covers the planning for decommissioning.

Under its waste management program Cameco minimizes the generation of waste at the Port Hope Conversion Facility and disposes of waste in accordance with CNSC regulatory requirements. Cameco also maintains a cleanup program to carry out cleanup, remediation and

renewal work. The VIM project will be carried out under this existing program.

CNSC staff verify that the waste management and cleanup programs are in place as part of regular oversight of the Port Hope Conversion Facility. Cameco is required to maintain decommissioning plans throughout the lifecycle of the Port Hope Conversion Facility as well and Cameco's plan meets the requirements of CSA Standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances*, and CNSC Regulatory Guide G-219, *Decommissioning Planning for Licensed Activities*.

By the end of September 2017, Cameco has also committed to implement the requirements of Standards N292.0-14, *General Principles for the Management of Radioactive Waste and Irradiated Fuel*, and N292.3-14, *Management of Low- and Intermediate-Level Radioactive Waste*.

Cameco will be required to update waste-related licensing documents as it transitions to implement these and other new and upcoming relevant CSA standards and regulatory documents.

Finally, the SCA packaging and transport covers programs for the safe packaging and transport of nuclear substances to and from the Port Hope Conversion Facility. The *Packaging and Transport of Nuclear*

Substances Regulations, 2015 apply to the packaging and transport of nuclear substances, including the design, production, use, inspection, maintenance and repair of packages and the preparation, consigning, handling, loading, carriage and unloading of packages.

As part of CNSC's compliance verification program, inspection staff conduct compliance inspections to verify that Cameco's packaging and transport activities adhere to these requirements.

CNSC staff confirm that the Port Hope Conversion Facility's packaging and transport program meets all regulatory requirements.

I will now turn our attention to other regulatory matters identified in staff's written submission CMD 16-H8 that may be of particular interest to local stakeholders and the public and the Commission. Each of these topics is described in more detail in the following slides.

As part of CNSC staff's review of the licence renewal application, staff conducted an environmental assessment under the *Nuclear and Safety Control Act*. This assessment included existing operations as well as the scope of the Vision in Motion project. This document was provided as an appendix to staff's written submission.

Based on the EA under CEAA for Vision in Motion and the EA under the NSCA, Cameco has demonstrated that they will continue to make adequate provision for the protection of human health and the environment.

The objective of the CNSC Independent Environmental Monitoring Program, or IEMP, is to verify that public health and the environment is not adversely affected by releases to the environment around CNSC-regulated facilities; to confirm that the licensee's environmental protection program adequately protects the public and the environment; and to complement the CNSC compliance program.

Site-specific sampling plans are developed for publicly accessible areas and locations and identify all media to be sampled.

In 2014 and 2015, CNSC staff carried out an independent environmental monitoring program around the Port Hope Conversion Facility. Air, water, soil and vegetation samples were analyzed for uranium and water samples were also analyzed for fluoride, nitrate and ammonia. These four constituents are tied to operational releases from the facility. More specific data results are provided on the following slide.

IEMP results are summarized on the right-hand portion of this slide. The concentrations of

uranium in air, water and soil as well as fluoride, nitrate and ammonia were below levels in federal and provincial environmental quality standards and guidelines. There are no guidelines for vegetation.

The exceptions were in fluoride concentrations at five water locations in 2014 and two water locations in 2015. These elevated fluoride concentrations measured in water were below the provincial drinking water guideline but above the conservative Canadian water quality guidelines for the protection of aquatic life, value of 0.12 mg/L, but remain much lower than the relevant toxicity benchmark of 11.5 mg/L for sensitive aquatic biota.

Overall, the IEMP results are consistent with Cameco's environmental protection program results and indicate that the public and the environment around Port Hope Conversion Facility are protected.

As we are all fully aware, a magnitude 9 earthquake struck off the coast of Japan on March 11, 2011, and resulted in a large devastating tsunami which led to a nuclear accident at TEPCO's Fukushima Daiichi nuclear power plant.

On April 8th, 2011, Cameco responded to a request made by the CNSC, pursuant to subsection 12(2) of the *General Nuclear Safety Control Regulations*, concerning

the lessons learned from this event.

In response, Cameco took immediate actions and retained a third-party expert to conduct a thorough review of their operations and programs in terms of the defence in depth concept. Cameco has since strengthened defence in depth and enhanced emergency response capabilities by implementing changes to their existing programs.

CNSC staff reviewed Cameco's corrective actions and concluded that they are satisfactory and have verified that all Fukushima-related action items have been implemented. Staff are satisfied that Cameco has enhanced its emergency response capabilities in response to this event as well.

With respect to Fukushima action items, CNSC staff are satisfied that these actions are closed.

Under paragraph 24(5) of the *Nuclear Safety and Control Act*, Cameco is required to provide a financial guarantee in a form that is acceptable to the Commission.

Cameco uses letters of credit for their financial guarantee and currently has \$101.7 million in effect. This value was accepted by the Commission as documented in the record of proceeding associated with the renewal hearing associated with Cameco's current licence.

As stated earlier in this presentation and by Cameco, they propose to increase by \$26.9 million its letters of credit to reflect an updated total augmented financial guarantee value of \$128.6 million. The difference is primarily tied to increases in labour rates, waste transportation and soil excavation, changes in indirect costs, including contingencies, as well as engineering and construction management costs.

Staff have assessed this cost estimate against Regulatory Guide G-206, Financial Guarantees for the Decommissioning of Licensed Activities, and consider that the proposed amount is adequate for decommissioning of the Port Hope Conversion Facility.

CNSC staff are satisfied that Cameco's proposed financial guarantee is therefore adequate for future decommissioning and recommend that the Commission accept this proposed revised financial guarantee in the amount of \$128.6 million.

This slide provides a summary as well as highlights from other portions of CNSC staff's written submission, CMD 16-H8, with respect to other regulatory matters.

In addition to Cameco's requirement to have in place satisfactory financial guarantees in place for decommissioning, Cameco also remains in compliance with

the CNSC *Cost Recovery Fees Regulations* and has fulfilled its obligations regarding maintaining nuclear liability insurance.

Cameco also has a well-established public information program for its Port Hope Conversion Facility as well as the Cameco Fuel Manufacturing Facility. As these two facilities share a common target audience and communication activities, both facilities have undertaken numerous activities in the municipality of Port Hope in an effort to improve and maintain communication with those interested in and concerned about their facilities and activities, including implementation of the Vision in Motion project.

During the current licensing period, Cameco has also carried out numerous public meetings and continued with mailouts of community newsletters to all addresses in the municipality.

Early in the review process for Cameco's licence renewal application, aboriginal groups who have an interest in the Port Hope Conversion Facility were identified by staff, provided information about the licensing process and encouraged to participate in this Commission public hearing and to also apply for funding through CNSC's participant funding program.

I will now pass the presentation back to

Ms Haidy Tadros, who will turn our attention to CNSC staff's proposed licence as well as overall conclusions and recommendations.

MS TADROS: Thank you.

For the record, my name is Haidy Tadros.

CNSC staff recommend that the Commission issue Cameco a licence that contains standard licence conditions plus three facility-specific licence conditions. A copy of a proposed licence was appended to CNSC staff's written submission, CMD 16-H8.

CNSC staff have proposed one nuclear facility-specific licence condition that requires Cameco to implement and maintain a program to carry out cleanup, decontamination, demolition and remediation work.

CNSC staff have also proposed two licence conditions that require Cameco to not exceed the limit for a small quantity of fissionable material as defined by CNSC Regulatory Document RD-327, Nuclear Criticality Safety, and also require Cameco to implement and maintain a nuclear criticality safety program.

A Draft Licence Conditions Handbook was provided as an appendix to CNSC staff's written submission. This document provides compliance verification criteria used to verify compliance with the conditions in the licence and also includes non-mandatory recommendations and

guidance on enhancing the effectiveness of the safety and control measures.

This slide highlight CNSC staff's continued assessment and verification of Cameco's performance.

Cameco will continue to update Port Hope Conversion Facility documentation as it transitions to implement new and upcoming Canadian Standards Association standards and CNSC regulatory documents.

As part of staff's annual regulatory oversight reporting to the Commission, CNSC staff will continue to evaluate and report back to the Commission on an annual basis on the progress Cameco is making in transitioning to fully implement these standards and regulatory requirements.

Cameco will continue to update Port Hope Conversion Facility documentation as it transitions to implement new and upcoming CSA standards and CNSC regulatory documents, as identified in the table on this slide.

CNSC staff's conclusions and recommendations follow.

So to wrap up staff's presentation, Cameco's licence renewal application submissions were evaluated, and existing Port Hope Conversion Facility

programs, resources and measures in place to protect the health and safety of persons and the environment, to ensure security and to meet Canada's international safeguards obligations were assessed.

CNSC staff's conclusions and recommendations considered this evaluation as well as overall assessment of Cameco's compliance with the *Nuclear Safety and Control Act* and its Regulations during the current licence period.

In conclusion, CNSC staff have conducted the following with respect to paragraphs 24(4)(a) and (b) of the *Nuclear Safety and Control Act* in that Cameco is qualified to carry on the activity authorized by the licence; will, in carrying out that activity, make adequate provisions for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

CNSC staff recommend that the Commission accept CNSC staff's conclusions and recommendations presented in staff's written submission to authorize Cameco to operate Port Hope Conversion Facility from March 1, 2017 to February 28, 2027, pursuant to section 24(2) of the *Nuclear Safety and Control Act*.

In recommending a 10-year licence term,

CNSC staff took into consideration Cameco's operating experience and demonstrated compliance in carrying out the activities under its current licence. CNSC staff also took into consideration the robustness of Cameco's existing programs that provide assurance that safety significant activities are examined and that safety is maintained.

Cameco also intends to fully implement the Vision in Motion project during the proposed 10-year licence period.

Annual reporting to the Commission at public proceedings allow for frequent public updates regarding the status of VIM project implementation as well as licensee performance and updates on CNSC regulatory oversight activities and Cameco's transition to implement new and upcoming CSA standards and CNSC regulatory documents.

Taking all of this into consideration, CNSC staff view that a 10-year licence would allow Cameco to continue its safe operation while maintaining transparency of operation, public engagement and adequate regulatory oversight.

Finally, CNSC staff also recommend that the Commission accept the proposed revised augmented financial guarantee for this facility.

As has been mentioned in our presentation

with respect to the proposed release limits identified in Table 8 of CNSC staff's written submission, CNSC staff recommend that the Commission accept release limits for air and gamma radiation as noted in CNSC staff's written submission, with one exception.

With respect to the sanitary sewer release limits, CNSC staff had proposed a sanitary sewer release limit of 1,825 kg per year for uranium based on radiological dose, with the intention of using the chemical toxicity to set an appropriate action level for uranium.

We have since derived a sanitary sewer limit value based on chemical toxicity to address concerns raised by intervenors and assure the Commission and the public that we do take environmental protection very seriously.

Staff have used the CCME Canadian Water Quality Guidelines for the Protection of Aquatic Life and its derivation and propose an interim concentration value of 275 mcg/L monthly as a suitable release limit, one that is conservatively protective of the public and the environment.

This value takes into consideration not only radiological dose to the member of the public but also the chemical toxicity of uranium to the public and sensitive species in the aquatic environment.

The use of concentration units such as microgram per litre, rather than annual loading value as originally proposed, provides better evaluation of the receiving environment as compared to water quality guidelines for protection of sensitive aquatic life as well as drinking water standards.

Additionally, by December 2016, Cameco is required to have in place CNSC accepted action levels for sanitary sewer releases of uranium, values that if exceeded require notification to the CNSC and an investigation by Cameco. CNSC staff will continue to work with Cameco on the development of these values.

We thank you for your attention. We are prepared to respond to any questions you may have.

THE PRESIDENT: Thank you.

I think this is a good time to break for 15 minutes and we will resume at 4 o'clock. Thank you.

--- Upon recessing at 3:46 p.m. /

Suspension à 15 h 46

--- Upon resuming at 4:06 p.m. /

Reprise à 16 h 06

THE PRESIDENT: Okay, we are back.

Before we start, I understand that staff

want to make a correction.

MS TADROS: Yes, sir. Haidy Tadros for the record.

Towards the end on our Slide 57 we just want to clarify CNSC staff's recommendation regarding the interim concentration for uranium release limit to sanitary sewer is 275 mcg/L as a monthly average. This value is based on the CCME Water Quality Guidelines for the Protection of Aquatic Life.

CMD 16-H8.8A

**Oral presentation by the
Canadian Association of Nuclear Host Communities
and the Municipality of Clarington**

THE PRESIDENT: Okay, thank you.

So we will now move to the first submission, which is an oral presentation by the Canadian Association of Nuclear Host Communities and the Municipality of Clarington, as outlined in CMD 16-H8.8A.

I understand Mayor Foster will make the presentation. Mayor Foster, over to you.

MAYOR FOSTER: Thank you, Mr. President and to the Panel for the opportunity to address you on this issue.

For the record, I am Adrian Foster. I am the Chair of CANHC, the Canadian Association of Nuclear Host Communities, and the Mayor of the Municipality of Clarington, the host community to Darlington nuclear.

I will be presenting in tandem with the Municipality of Port Hope and Hardy Stevenson, Stevenson and Associates.

CANHC is a non-profit association made up of member municipalities that host various nuclear installations.

The Municipality of Port Hope is a longstanding member of CANHC and is the host community for the Cameco Port Hope Conversion Facility.

Hardy Stevenson and Associates Limited was retained by CANHC to provide peer review services.

You have, as written interventions, letters from CANHC, a letter from the Municipality of Port Hope and the peer review report from HSAL.

Our mission of CANHC is to ensure that nuclear host communities maintain the best interests of their communities in an ongoing and proactive relationship with the Canadian nuclear industry and regulators. Not dissimilar to your mandate, safety of the public, the community and the environment is our first priority.

CANHC notes Cameco's record of safely

operating the PHCF under the *Nuclear Safety and Control Act*, adherence to NSCA Regulations, adherence to CNSC processes.

We are pleased to note CNSC staff's recommendations regarding the Vision in Motion and we are fully supportive of the peer review report and the recommendations in that report.

MAYOR SANDERSON: Thank you, Mayor Foster.

I'm Bob Sanderson, Mayor of Port Hope, and as Mayor of Port Hope, I would like to officially welcome you to the community and hope you get to enjoy some of the amenities of the community.

This little discussion I'm going to have, I would like you to know that the community is a strong proponent of the application of Cameco and we have listed some of the reasons on the slide in front of you.

Cameco is a good corporate citizen in our community. And when I say our community, it's an extended community including the County of Northumberland. They participate in a lot of events. They are very supportive of all community events, sponsoring redevelopment at the Capital Theatre, which is a very important cultural component in our community, and participating on community safety initiatives and working closely with our fire protection agreements and training.

Cameco, the Municipality of Port Hope and PHAI will continue to work together closely on coordination of all these projects and part of the Vision in Motion. Of course this project is subject to some legal agreement with MPH. This was with respect to some of the remedial material that needs to be removed.

So we are very supportive of Cameco's licence to renew the application and we also support the peer review recommendations that are coming forward now from Hardy Stevenson and we will proceed with those now. Thank you.

MR. HARDY: Good. Thank you, Mayor Sanderson.

For the record, I'm Dave Hardy. You have received our written report. On page 8 of the report we list the documents that we viewed as part of the peer review report.

Next slide, please.

We also list in our -- okay, next slide there. Great. Oops, not moving. There, good.

In the next two slides we list our peer review methodology. I have appeared before the CNSC on numerous occasions. I wanted to make sure our methodology was rigorous and disciplined.

Next, please.

In terms of the report highlights, we have recommended to CANHC that they support Cameco's 10-year licence renewal. They are a good corporate citizen and a valued organization in the community.

Next, we do have a number of recommendations.

First, we always welcome further information on the Stage 2 and ultimate decommissioning of the facility.

Second, we have had some movement on our recommendations with respect to pump and treat of groundwater and with respect to harbour remediation and the management of groundwater due to construction activities. We understand that the material will be going to the evaporator and we are satisfied with that as well.

Our final recommendation is that we would welcome, I guess, strengthening -- there's good communication between Cameco and the municipality. We'd recommend strengthening of the ongoing communication so that the municipality is aware of what soils are being removed, what soils are left and what effluent is left as well, and also continued communication on groundwater remediation activities and harbour contamination avoidance measures.

Next.

We have a recommendation as well -- next slide, please. Yes. That we have been reviewing the CNL and Port Hope Area Initiatives transportation procedures. We would welcome additional information and strengthening of information on how Cameco is proposing to transport material to the long-term waste management facility.

We note that this is basically a tripartite situation, with two projects ongoing at the same time. Both Cameco and PHAI have excellent standards and procedures, radiation protection, environmental protection and so on. Again, understanding how those procedures work together is something we continue to look forward to as the projects move ahead.

Again, on that matter, we would again look for strengthening of our role on a coordination group with Cameco and the Port Hope Area Initiative through the Licence Condition Handbook.

We have -- are pleased of the comments we've heard from CNSC staff with respect to the uranium and the sewage treatment system. We look forward to the continuous conversation on that in terms of Port Hope's review and concurrence with the information that would be brought forward in the future.

Next.

We note that the design of the water

treatment plant and other measures will be occurring in the future. We, as a municipality, desire to again review and concur with these -- the design and proposed implementation of the treatment system and other facilities as part of the process, and we list them on this particular slide.

In terms of the last two recommendations, there is a strip of land in the east side of the Cameco site that is owned by Municipality of Port Hope. For that remediation on that particular piece of land, we would request that -- through the Licence Condition Handbook, that Cameco either retain a record of site condition or if Cameco uses a risk-based approach that the clean-up should be based on residential parkland criteria, which would be column A.

And finally, we welcome ongoing information on regular updates of Cameco process -- progress, I should say.

And that completes my presentation.

THE PRESIDENT: Thank you.

Why don't we jump in? Who wants to start?

Mr. Tolgyesi?

MEMBER TOLGYESI: Merci. On this report by Mr. Hardy, there is comment about residential and parkland criteria and risk-based criteria.

What's the difference? What change

marking Cameco? What's the difference when you change from one set of criteria to another way of evaluation of risk?

What's the impact? What's the consequence?

MR. CLARK: So Dale Clark, for the record.

Actually, if I could, I'd like to start just first by expressing our appreciation and respect for Mayor Sanderson being here tonight.

It is something that we certainly appreciate the support and personally have great respect for you being here as well, and wanted to acknowledge that and appreciate your support and attendance here tonight.

Your question on the risk-based criteria, risk-based clean-up criteria, that is our current intent, to use a risk-based approach on the land in question just outside -- just outside that fence line property. It is -- it is one that, you know, we will do that and conduct a risk assessment on that in that particular area to make sure that it is -- it remains protective for the public and for the environment, and it is -- that is essentially the difference, that it is based on that assessment to ensure that the levels that are cleaned up to at that level remain protective of the -- for the public and the environment as opposed to a very specific limit which has been proposed and is in discussion for the PHAI majority of that project.

MEMBER TOLGYESI: This residential parkland criteria, it's not a regulated limit which should be maintained, whereas when you're talking about risk evaluation, you could consider that from this level the risk is potentially lower. So even though we didn't reach this parkland criteria, we could manage because risk is not really elevated.

MR. CLARK: Yeah. Dale Clark, for the record.

I'll ask our program manager, Shane Watson, to add if there's additional detail, maybe, to provide, but I would also emphasize -- and to the request and the specific ask in the intervention on the record of site condition, and that is Cameco's intent. And so as part of that -- as part of that remediation work in that area, that is our agreement and our understanding and that would be part of our work in that area, to obtain a record of site condition to ensure that that land remains protective for the public and for the environment.

MR. WATSON: Shane Watson, for the record.

Yeah, I agree with what Dale has said. The intention is that we would use a risk-based approach to clean up on that particular piece of property. Whether risk-based approach is used, the idea is there a property specific set of criteria would apply as opposed to what

might exist in the standard table with the Minister of the Environment.

THE PRESIDENT: Okay, so now I'm totally lost. We spend a lot of time agreeing with the Ministry of Environment of Ontario, and for clean-up criteria that apply throughout Port Hope. Why are you not adhering to the same criteria?

I like numbers, I like bottom line. I don't understand what risk assessment -- why is risk assessment different than the criteria that's been agreed to after a lot of discussion?

MR. WATSON: Shane Watson, for the record.

The particular area that we're talking about here between the Cameco fence line and the harbour wall on the east side of our site is an area that has a number of complications associated with deep excavation in that particular part of the site, including issues related to the stability of harbour walls -- tiebacks, harbour walls and the existing UO₂ plant which is nearby that facility.

The remediation plan that we put forward and which we have letters of support from the CNSC, the Ministry of Environment in Ontario and Environment Canada, propose that this area of the site -- that we would install additional pump and treat wells which are presented in the

Vision in Motion project plans and the remediation of the soil at this part of the area would be based on risk-based criteria.

THE PRESIDENT: Staff?

And maybe we can ask the representative from Environment Canada. I forgot to mention there was also Mr. Duck Kim with us, that you can also help us with those -- with this debate.

Staff?

MR. THELEN: John Thelen, CNSC staff for the record.

What's being discussed here is a record of site condition. In the province of Ontario, any property that undergoes a land use change triggers provincial regulatory requirements for a change of land use which requires in this case a record of site condition.

CNSC staff meet and continue ongoing dialogue with Environment and Climate Change Canada and Ontario Ministry of Environment and Climate Change for these and other areas where there is overlap between both regulators, so in the case what's being described here, there are requirements under Cameco's licensing obligations to protect the environment. There are also overlapping requirements for Ontario Ministry of Environment under the record of site conditions requirement and Cameco ultimately

will have to abide by the most conservative of those two processes. And we'll continue that ongoing dialogue with Ontario Ministry of Environment and Climate Change to ensure that that happens.

THE PRESIDENT: So I'm just focusing -- just answer the question. It's Cameco land is different than the PHAI land remediation process. It's a different land and it will be treated differently. That's what I'd like to understand.

MR. THELEN: Cameco could elaborate on this. The precise area that's being discussed is an area where Cameco has indicated or committed to following an additional process or the record of site condition process for this piece of property.

THE PRESIDENT: Environment Canada?

MR. KIM: Duck Kim, for the record.

I would agree with CNSC's conclusion on that issue.

Environment Canada, our primary concern is what is impacting on the environment, so the water and where biota might impact on -- or where the soil quality might impact on biota. And as I understand, the soil will be -- the clean-up criteria that is being discussed is primarily, in our view, MOECC's mandate for clean-up of soil. We -- when we agreed that the -- when Cameco came up

with the new criteria for VIM, we had agreed based on -- at least as far as the clean-up criteria for soil, we agreed based on the risk assessment of that.

MR. RINKER: Mike Rinker, for the record, the Director-General for the Directorate of Environmental and Radiation Protection and Assessment.

And to start off, I think it's as important to realize that the process for record of site condition and the criteria that we're talking about are provincial processes and not with Environment and Climate Change Canada. Environment and Climate Change Canada is supporting us today on groundwater contamination and how that's treated and how the harbour would be affected.

Now, you asked about the separation between Port Hope area initiative and Cameco's facility and -- under Vision in Motion. And in fact, they are separate in that this is -- we're talking about the edge of the turning basin which is connected to the Cameco property, and they are doing some soil remediation of the Cameco facility, but it's not like a complete remediation that they would do at the time of decommissioning in as detailed and in the preliminary decommissioning plan.

What they are doing along the harbour basin is making sure that that land would be safe for the public to use, not for residences because it's a very

narrow strip along that boundary. But they are intending to clean it up to the point that the public and fishermen and people who want to go for a walk can do so in a manner that's safe and that the ultimate clean-up would be done at the time of decommissioning of the facility.

THE PRESIDENT: Look, I don't want to belabour this, but after long negotiation with the Ministry of Environment, et cetera, they came up with two columns, residential, industrial kind of a thing because, at the end of the day, you've got to give numbers on how deep and how far you go in clean-up.

What I'm trying to understand is, is there a different column for Cameco land that actually describe -- so for uranium, it's still going to be 23 microgram per metre cube or whatever the units are, and for arsenic, et cetera, all those things. Is there such a column that eventually will be determined for Cameco lands?

Anybody can help me with this?

If you don't know right now, just telling me in the fulsome of time you'll develop such a column and on an annual basis, as you come in front of us, we will find out what the operational criteria will be for those who dig it up.

MR. THELEN: John Thelen, for the record. When it comes to the criteria that you're

talking about, so the example you provided was Port Hope project clean-up criteria versus the MOE criteria, the Port Hope project clean-up criteria were based on MOE values, but limited to signature legacy waste constituents, so a much more limited value.

When MOE goes through a record of site condition process, they don't have a screening process like that. They will require the land owner or the organization doing remediation to abide by all constituents within that list, which can go beyond the legacy waste signature criteria that are in the Port Hope Area Initiative.

So the overlap is there. The same criteria when it comes to legacy waste, but MOE could speak to the fact that there are additional requirements to undergo a record of site condition process that involve other constituents above and beyond which is part of the Port Hope Area Initiative licence.

THE PRESIDENT: Okay. Thank you.

Dr. McEwan?

MEMBER MCEWAN: Thank you, Mr. President.

If I go to your report, page 10 and 11, recommendation 2 and the third element of recommendation 3 because I see some overlap there, do you have any time lines in which you would expect VIM to be started, to be moving, for you to receive some understanding of how that

project is moving forward?

Page 10 and 11.

You note that you support it, but you're not giving any criteria of expectations or hopes, and that's really where I think aspect 3 comes in of your third recommendation, which is how do we -- how do we actually be involved in some of the discussions.

MR. HARDY: Yes. Obviously, our support for the 10-year licence review is to -- the practical matter that it will take some time from the time that VIM begins to time that the lands are cleaned up. My concern was that certainly we're not expecting right now to understand stage 2 and ultimate decommissioning that's to come and that we're satisfied with that.

That said, we're making the case to understand what's left on site and what is being removed to the facility, and so in this respect of stage 2, those are relevant pieces of information.

On the third item, third item with respect to recommendation 3 on page 11, Port Hope -- that is Port Hope's land on the east side of the site. We would be looking for a greater role in a joint group to have discussions on matters that Dr. Binder raised just momentarily -- or a moment ago.

Certainly we've been involved with Port

Hope Area Initiative CNL for some length on how clean is clean and criteria and so on. It's particularly important for the harbour. The municipality owns the harbour and we expect to be part of that conversation.

MEMBER MCEWAN: So you don't really have any expectations, though, for the whole project to start in terms of the remediation that is described in the CMDs.

Do you have any expectations -- or do you have any problems with the changes in scope from what is now described from what was described in the 2010 -- Vision 2010? Because there has been some change in the configuration of buildings removed, configuration of new buildings.

MR. HARDY: We noted the change in scope, for sure. It appears to us that the process would be done more efficiently, that there's been some matters of scale that Cameco identified, and that was satisfactory, again considering that there's a longer-term clean-up and remediation that would be done.

For what we're seeing, we're satisfied with that change in scope.

THE PRESIDENT: Thank you.

Ms Velshi.

MEMBER VELSHI: So I'm not sure if this issue that you've raised on -- again on page 11, number 3

about the remediation of the harbour, whether you still have concerns about that. You seem to indicate that the approach seems to have been changing and you're not quite satisfied that it's going to meet what your expectations are.

So is that still a residual concern that you have?

MR. HARDY: Yes, it is. Mainly to ensure that municipality as a party to the tripartite agreement has that information. We -- there's room for us to be provided more information than we have right now, so that's where I saw that the Licence Condition Handbook could strengthen the role of the municipality in those sort of tripartite discussions so we could learn better.

We've, over the years, done extensive review of harbour remediation activities from -- going back to the EA stage for Port Hope Area Initiative. We understand there have been some changes. We're not as clear on the changes that are being discussed, and we would like to have -- be much more clear on those changes.

MEMBER VELSHI: Thank you.

So I'll ask Cameco to comment first and then get to staff on is the Licence Condition Handbook the place to clarify that. So maybe with you.

MR. CLARK: So Dale Clark, for the record.

First of all, I would say that we have had extensive cooperation and communication with municipality on this project over many years, and I understand the ask and the request, frankly, as we -- as the project proceeds and as we get closer to implementation, which we are now, that the level of communication increases. And I think that's at the heart of the ask, and we understand that and agree.

And you know, we'll certainly do what is necessary to make sure that the municipality and the legal representatives of the municipality are well informed and have their questions answered.

As an example of that, over the past year, six months in particular, maybe, we have started to ramp up the levels of communication. There is a new process for what we'll call tripartite regular meetings with management and key staff from Cameco, Port Hope Area Initiative and the municipality that have now been established on a regular basis. That's a new protocol, and I think appropriate as we get into implementation of the project.

So in general, we understand the ask to stay closely involved, and that's certainly our intent, to make sure the municipality is well informed and we keep that communication very active throughout the project.

MEMBER VELSHI: Thank you.

So that was one of your asks, that you be part of that joint forum, and it seems like you already are, then.

MR. CLARK: Yes. And as much as that can be strengthened, we would appreciate the direction that's being taken.

MEMBER VELSHI: Staff?

MR. JAMMAL: It's Ramzi Jammal, for the record.

I will start. Then I'll pass it on to my colleagues at the front.

I've heard multiple things taking place in this question, and the Commission is going from Port Hope Area Initiatives to the Vision in Motion, and the role of the licensing for Cameco. I just would like to make it very clear that our mandate is not to oversee contractual agreement. I would like to start from that basis.

Our mandate is to ensure the environment is protected and so is the safety of the public.

So having said that, our staff, Mr. John Thelen, will explain in detail with respect to tripartite engagement. Our staff attend several of these meetings, and there is the way forward.

With respect to the Vision in Motion, it underwent an EA assessment and that was agreed upon by the

Commission, and we are into the licensing phase that is incorporated into this licence renewal.

So I would like to make it very clear that there is contractual agreement that is in between the licensing process. I would like to separate these two element from what is our regulatory oversight and what is the licensing process.

I will pass it on to Mr. Thelen or Ms Murthy.

THE PRESIDENT: I think it's a good segue to reinforce what you just said. Let's not get into the PHAI. We're going to spend a whole day on it, I think, where the three parties, hopefully, will be in the room, including CNL, and we can actually talk about that.

But what we should discuss is -- it's the Cameco licence here. There were eight recommendations made, and I really would like to make sure that staff tells me which of those recommendations apply to the Cameco or which of them apply to the discussion we're going to have in a day or two on the PHAI or which one we're not involved in because it's, as Mr. Jammal just said, a legal arrangement between different parties. Okay?

So if you look at number 1, I assume that should be -- Cameco should say yes, like immediately, right now, on the record.

MR. HARDY: For the record, that's a yes.

--- Laughter / Rires

THE PRESIDENT: Okay. Well, I think 2 is an interesting kind of question.

Can you explain a little bit more about this pumper treatment system?

MR. CLARK: Dale Clark, for the record.

I believe, if you're speaking to recommendation 2, that's around stage 1 and stage 2 remediation, right. So, generally, I would say that we agree. We agree that we will provide additional information on what is referred to as stage 2 remediation, or final remediation -- I think that's referencing -- at an appropriate time in the future.

We have shared that information on the PDP, the Preliminary Decommissioning Plan, in the past. As you're aware, that process, that document, is updated every five years, and has been updated with this relicensing.

We are not undertaking final decommissioning, of course. We do agree, though, that it would be appropriate to discuss that with the municipality at some point in the future, when we are closer to that date.

THE PRESIDENT: The municipality, are you satisfied with that reply?

MR. HARDY: Yes. I would add, though, that as stage one proceeds, certainly additional information and ongoing information about what's in the soils removed and what's remaining would be useful information to the municipality.

THE PRESIDENT: Okay. I'm just following the deck that the municipality has put forth, because I figure we can dispose of those eight relatively quickly.

I'm now on recommendation number 3. This is on transportation. I wonder if there's something that you want to share with them.

MR. CLARK: Dale Clark, for the record.

On the question of information around transportation procedures, again, we agree. In general, I would say we agreed that we need to work very closely with the municipality, and we'll stay -- we'll do our very best to provide all the information needed for the municipality to be well informed, aware, and ensure that, you know, we are taking all measures to protect the safety of the public and the environment.

The waste transportation methods that we will be undertaking through the Vision in Motion project, we can provide more detail and information here, or specifically to the municipality, as needed. But certainly we will follow of the applicable TDG, or other regulatory

requirements, for the packaging.

The shipping routes have been described in the submission, and we'll be following the requirements, as agreed to, with the PHAI for the waste acceptance criteria, for the packaging, and for the method of transporting that material to the LTWMF, to the long-term waste management facility.

But, in general, we agreed that we will certainly provide more information to the municipality on this and the other topics. As I said at the beginning, that's what we recognize. As we get closer to implementation, as we are now, we will ramp up these communication efforts that we have under way.

THE PRESIDENT: I think a similar kind of answer is on number 4.

I'm interested in number 5, staff, whether you have a view on that. I think you alluded to this in your presentation.

MS MURTHY: Kavita Murthy for the record.

The *Licence Conditions Handbook* is a handbook that lays out the requirements on the licensee. It's based on the authority given to the Commission under the *Nuclear Safety and Control Act*. To allow -- to have MPH as an additional approver is not something that staff would be considering; however, we do recognize that they

are a major player in this remediation work and would expect Cameco to be informing the municipality about the activities they're going to undertake.

THE PRESIDENT: Okay. Are you satisfied with that?

MR. HARDY: Certainly we could agree that in matters with -- we're not an approval body, however, there is a sewage bylaw, and so it is the municipality's sewer. What we're looking for is, again, any way to strengthen our role, through participation in discussions, regarding the standards, the review, and providing whatever concurrence we can.

We find that certainly if the *Licence Conditions Handbook* could point out that the municipality does have bylaws in place, and that should be a participant in the discussion, that would complete our satisfaction.

MS MURTHY: Kavita Murthy for the record.

So for matters that fall outside the *Nuclear Safety and Control Act* specifically, any regulations that are outside of CNSC's regulatory mandate, it is our expectation that the licensee will comply with any and all requirements of any and all regulators that have a role to play. So to that end, we would expect anything that Cameco proposes to release to the sewer would be respectful and would be in line with any requirements

that the municipality has for sewer releases.

THE PRESIDENT: Well, then, you may want to answer also 6, 7 and 8.

--- Pause

MS MURTHY: So with respect to 7, this is again, I think, the matter that was -- Kavita Murthy, for the record -- this is again a matter that was just discussed. It is speaking to a record of site condition, something that falls under the regulatory authority of the Ontario Ministry of Climate Change, so I'm -- they will be here tomorrow, I understand, so they will be able to respond to it. But, again, this would be a matter for the provincial authority to speak to.

THE PRESIDENT: Okay.

Is there anything that you still are concerned with and that you would like to raise?

MAYOR SANDERSON: Bob Sanderson, mayor.

I just want to clarify, through some of these discussions, you know the complexity of the projects, and some of the municipal requirements.

When we talk communications, we really want to be a participating body in the decision-making process. So if you look at, say, transportation routes, we'd like to be involved in not just the safety, but the wear and tear and other things. So I'd like to just

reiterate from a municipal perspective -- and I think we're there -- we do participate. So we're not just the receiver of information, we are, in fact, talking in terms of a relationship, you know, with the outcome of it being satisfactory to the municipality and to meeting the municipal requirements at sort of all levels for our bylaws and requirements.

Thank you.

THE PRESIDENT: And I think that's exactly what's going to be discussed in the whole PHAI, as an example of, my understanding, the three parties closely working together.

Any other questions? You're breaking the furniture?

MEMBER MCEWAN: I'm breaking the furniture.

--- Laughter / Rires

THE PRESIDENT: They got excited about that rely.

Anything else you want to raise? Any other further issue that, you know -- and, again, we're still focusing on Cameco's licence, rather than the whole PHAI remediation.

MR. HARDY: I'll just end off by just reiterating our support for the licence and the tender and

renewal. We raised a number of matters that we provided comments on, but overall we're supportive of a licence renewal.

THE PRESIDENT: Okay, thank you. Thank you very much.

I'd like to move now to our next submission, which is an oral presentation by Hannibal Farola, as outlined in CMD 16-H8.4.

Did I get the right name?

MR. LEBLANC: No, we're going with the Northumberland Hills Hospital Foundation.

THE PRESIDENT: Oops, sorry. I'm a bit ahead of myself.

Sorry about that. The next submission is an oral presentation by Northumberland Hills Hospital Foundation, as outlined in CMD 16-H8.3.

I understand that Mrs. Cunningham, you'll make the presentation.

Over to you.

CMD 16-H.3

**Oral presentation by the
Northumberland Hills Hospital Foundation**

MS CUNNINGHAM: Good afternoon. My

name is Ronda Cunningham. I am the Executive Director of the Northumberland Hills Hospital Foundation.

When Mayor Bob Sanderson was speaking, he opened up his presentation by saying "Welcome to our community," and he hopes "you enjoy some of the amenities we have here." I just want to say that, as a representative of the hospital, I hope our facility is not one of those amenities you have to enjoy visiting.

--- Laughter / Rires

MS CUNNINGHAM: I consider it a privilege to attend today to speak in favour of Cameco's application to renew its licence at the Port Hope Conversion Facility.

I base my feelings on this belief because Cameco has truly strengthened the quality of life we enjoy in Northumberland. They are the most generous corporate partner in our region.

As I said in my introduction, I work for the Northumberland Hills Hospital Foundation, and it's a role that I've served in for over two decades. Our organization raises money to purchase lifesaving medical equipment and technology to benefit the thousands of patients that we treat and see every year.

The financial support extended to our hospital from Cameco has topped over \$731,000, and this has been only since 2001.

Cameco first joined with others in our county in 2001, when we were building the hospital that we now call home. Their leadership gift of \$250,000 helped to purchase our first-ever CAT scanner. Before this our residents had to leave the area to access this service. In 2007, Cameco renewed its support with a gift of \$200,000 in support of an MRI. We now have that MRI in our hospital, providing a diagnostic service, again, that was previously not available in our community. Both the CT scanner and the MRI helped to save lives.

In 2002, Cameco completely funded all of the new obstetrical equipment required for our maternal childcare program with a gift of \$150,000.

On top of all of this, Cameco has been a platinum sponsor to our annual gala ball, which just celebrated its 16th anniversary, raising over \$2 million during this time.

What I've just described above does not include the multitude of other asks that come from across the county to Cameco from well-meaning citizens and organizations that run various fundraisers to support our hospital. An example of this would be an event taking place on December 10th.

A local family who owns a Christmas tree farm is staging a special event whereby families can come

and cut down their own Christmas tree, enjoy music, hot drinks, a warm lunch and souvenir family photograph. One hundred percent of the proceeds will be donated to our hospital foundation, and lucky for us Cameco said yes to that family and is underwriting the cost of the lunch that will be provided that day. It's also worth noting that the family that's staging this event, he is an employee of the Cameco facility in Port Hope.

We are deeply grateful for the role that not only Cameco, but also its employees, play in making Northumberland County the gem that it is. All of the staff we deal with at Cameco make the experience easy and enjoyable. They truly go the extra mile for us, and we see that.

Cameco is a huge presence in Northumberland and it's a presence that we support and want to see continue. We strongly believe that Cameco can continue to operate in a safe and environmentally responsible manner.

Just in closing, when I mentioned to one of my board members this afternoon that I was coming here, his quote was, "They are one of the most community-conscious companies I have ever seen," spoken by Jim Mills, a member of my foundation board.

Thank you.

THE PRESIDENT: Thank you.

Comments? Questions?

Dr. McEwan.

MEMBER MCEWAN: This is a slightly peripheral question to foundation activities.

Do Cameco contribute -- I guess this is for both -- to anything other than just the financial contributions, sort of helping in planning activities, helping in long-term structural planning and things like that.

MS CUNNINGHAM: Absolutely. Cameco employees engage in the life and work of the hospital as volunteers. Is that what you mean?

MEMBER MCEWAN: Well, just do they sort of actively help the running of the hospital or do they actively support administrative or structural activities that the hospital needs in addition to financing?

MS CUNNINGHAM: I think the best way that Cameco employees engage in our organization is through their volunteer efforts. I'm not aware of any Cameco employees who are currently serving on the board of directors of the hospital. Not to say that hasn't happened in the past, but at the current time I do not believe that's the case. Primarily Cameco's role has been to help fund the medical equipment needs so that our community has

access to the very best care possible.

THE PRESIDENT: Just situate me. Is this the only hospital for Port Hope and Cobourg? Is that the main principal hospital? Are there are any hospitals around?

MS CUNNINGHAM: Yes. No, we are the only hospital serving the County of Northumberland.

THE PRESIDENT: So --

MS CUNNINGHAM: I should correct that. Some of the residents of this county may choose to go to hospitals outside of our geographic area for care, but we are predominantly the county's hospital for this area.

MEMBER MCEWAN: And what's the population?

MS CUNNINGHAM: Our catchment area is 55,000.

THE PRESIDENT: So is there anything -- I don't know if your competency to deal. Is there anything different of the kind of patients that come from Port Hope than from Cobourg?

MS CUNNINGHAM: No.

THE PRESIDENT: Okay.

Questions?

Well, thank you. Thank you for this presentation.

MS CUNNINGHAM: Thank you for the

opportunity.

THE PRESIDENT: The next submission is an oral presentation by Hannibal Farola -- I got it right now, I think -- as outlined in CMD 16-H8.4.

Mr. Farola, the floor is yours.

CMD 16-H8.4

Oral presentation by Hannibal Farola

MR. FAROLA: Mr. President, to the members of the Commission, and to everybody here, good afternoon.

My name is Hannibal Farola. I'm a member of the Security Department in the Port Hope Conversion Facility for five years now.

Mr. President, before I begin, I would just like to stress how I appreciate this proceeding. I hope that everybody who's present here right now appreciate this public hearing as much as I do.

I came from Asia, and I grew up during martial law, where a strongman imposed their will. Public hearing doesn't happen there. People are not heard. Community -- if they -- the strongman, the dictator, would grant a licence to a company, and the whole community will be wiped out. They will just put the company right there

and then.

But right now, at this very afternoon, the government, represented by the Commission, is listening to the people. I am part of that community. The government, the community, and the private sector is here. For me, Mr. President, that is pure democracy in action, and I thank you for this opportunity.

So let me start by saying that five years ago, Mr. President, I was also here sharing my sentiments. Five years ago technology has already advanced, but not as advanced as now. BlackBerry was a big thing five years ago. Right now we all have iPhones, Androids. We have cell phones that we can talk with somebody. It's like a small TV in our hand. Ten, fifteen years ago, we got a cell phone that's boxy.

Thirty years ago, the self-driving car is Knight Rider, which was KITT. I don't know if you remember that. That's David Hasselhoff. You know? KITT?

--- Laughter / Rires

MR. FAROLA: Knight Industries Two Thousand. But we all know that's a camera trick. Somebody's driving inside the car, you know. But that was 30 years ago. Two weeks ago Tesla put it out on YouTube a self-driving care, electric car. So they showed that a person goes inside the car, the car drives itself, the

person doesn't do anything. So this car drives, stops on the stop sign, stops when there's people, goes to the parking lot -- I mean to the Tesla company. That driver goes out, he didn't even close the door, the car closes its door by itself, drives around looking for parking area in the parking lot. It stops when the person comes in. And finally it found spot, it parked by itself, and turned off the ignition. That was two weeks ago.

One week ago in the news, there's a big truck driving -- they showed it -- driving on the highway. No driver. It's driving by itself. Did not hit anybody. It stayed on the line.

So what I'm trying to say is that the future is really here. I mean it's amazing. It's mind-blowing, I would say.

And on top of that, people live longer now. Twenty years ago, the lifespan is 40. Now we double that. The population is growing. Technology is advancing.

In fact, I want to mention the Ministry of Transportation in Ontario is trying to position itself as a model province for the whole of Canada for zero emission. I want to mention that they launched in 2010 this electronic vehicle incentive program. So from then on up to now, Tesla, Volvo, BMW, all these branded vehicles, they are making models for electric vehicles. If you buy that

vehicle, you already automatically get rebates. In fact, it's listed you can get 13,000 -- up to 13,000 rebate if you buy an electronic vehicle for a 75,000 car.

Anyway, aside from that, the Ministry of Ontario also provided an incentive for the owner of that vehicle. You can get up to 1,000 incentive because you need a plug in your house.

On top of that, the government also allows Electronic Vehicle Charger Ontario, and up to -- it will be available for all the public to use by March 2017. In fact, they have 500 chargers -- electric charges in 250 locations in the province of Ontario alone. So there are chargers in Tim Hortons, in McDonald's, in IKEA. So people now can drive all over Ontario with electric vehicles.

So what I'm trying to say, Mr. President, is that all of these people are growing, you know, living longer. Technology's advancement -- the world needs enormous source of power. So it all boils down to power.

But we need a clean source of energy. Nuclear power by far is a clean source of energy. Nuclear power needs uranium. Uranium is what Cameco is all about -- Canadian Mining and Energy Corporation.

So I want to emphasize on the clean source of energy, Mr. President, because after nine years of staying here in Canada, finally my wife, me, and my two

children were able to go visit the Philippines last year and see my mother and my sister and my in-laws there.

So when we left Philippines, my wife -- she was a pharmacist. And I mean she's here in Canada. She's also -- she's now a clinical pharmacist in St. Mike's Hospital, one of the best hospitals in Canada. So I'm very proud of her.

Me, on the other hand, when I was in the Philippines, I was a commissioned police officer. I was a member of -- I was a forensic chemical officer with the crime lab. So basically it's a good job.

And they're wondering what I'm -- my job here in Canada. So when I say to them proudly -- I said, "I'm working in Cameco, a facility that provides uranium for nuclear plants," they have no idea, because in the Philippines, Mr. President, they don't have a nuclear plant there.

The Strongman started a nuclear plant program in 1970s. Never take off. Anyway, their major source of energy is gas, coal, and -- gas, coal and -- what else is -- that produce -- oil, I'm sorry. That's what I'm trying to say, oil.

So when I tried to explain to my family there what is a nuclear plant, they get scared, because the nuclear missile is -- that's what they have in head,

especially my mother. It's the atomic bomb in Hiroshima and Nagasaki. That's what's in his head. She doesn't know that the nuclear plants in Ontario provides 60 percent of electricity for houses, for school, for the government, for shelters. It's not anything scary.

So when I explain to them, well, what is a nuclear plant, in a way I was also trying to explain what is uranium and what is Cameco.

So allow me, Mr. President, this is how I explain to my mother and to my families there what is a nuclear plant or what is a gas or oil production electricity for safety reason. Anyway.

So I grab a candle for them. I said to them, "So, oil and gas is like this." So you burn the oil -- this is in the Philippines -- you burn the oil, you burn the gas. It boils the water, creates the steam, turns the turbine. The turbine's connected to generator; generator transform electricity. That's how I explain to them, because at least they have an idea.

But I told them, "Just like this candle, the gas, oil, and coal emits carbon dioxide." That's why it's so polluted there, I told them. And believe me, Mr. President, when I was a cop there, I stand five minutes in the road, I touch my nose, I touch my eyes -- it's so black with soot. That's what it is.

Then I explain to my mother, to my sister there what is a nuclear plant. So I told them nuclear plant is the same as the flashlight. Told them it's the same as the flashlight. But the flashlight doesn't emit carbon dioxide. I told them, "A nuclear plant is like that. It -- the flashlight needs a battery. Nuclear plant needs uranium. Uranium is provided by Cameco, which is the company I work for."

So boxing is big in the Philippines, Mr. President, as well as billiards. So I told them, "A nuclear fusion inside the nuclear reactor is like billiard. You hit the cue ball, that cue ball will run, hit other cue balls. It's like the atom hit other atoms. They start hitting each other with a friction that creates heat, boils the water." Right? This is the cue ball hitting each other, boils the water --

Can I still continue, Mr. President?

Okay, so it boils the water, it turns the turbines, create electricity.

But I said to them, "This uranium pellet is just as big as a peanut." So I showed them a peanut. This is seven grams pellet. But this is equivalent -- this seven grams pellet can produce energy the same as three drums. So I don't have drums here, but I told them, "This three drums, you burn them, it's the same energy as one

pellet of uranium."

So from that alone, they see what I'm trying to drive at, that nuclear reactors is clean and that nuclear reactors produces reliable, dependable source of energy, and that nuclear reactors needs uranium, and that uranium is provided by Cameco.

So I would like to conclude, Mr. President, that for the sake of the next generation, for our children's children, for the world's need of a clean source of energy, please grant Cameco their licence to operate for the next 10 years because, I mean, just like I explain, it's a clean source of energy.

Thank you, Mr. President.

THE PRESIDENT: Thank you. Thank you very much.

Any comment? Ms Velshi.

MEMBER VELSHI: Thank you.

You said you were here five years ago.

MR. FAROLA: Yes.

MEMBER VELSHI: At the last licence renewal. I wasn't here then. But over the past five years that you've been with Cameco, what changes have you seen when it comes to, say, employee safety? Give me some very specific, tangible examples of improvement that's been made.

MR. FAROLA: Oh, it's good that you asked me that question, madam, because my rule -- I also explained this to my family -- I'm very proud to be working with the best of the best in that business. We got former U.S. marines as our direct supervisor -- our manager. We got former U.S. Israeli soldier. We got two captains from -- in fact for our leadership, one captain from the fire department of Port Hope, one captain from the fire department of Cobourg.

And our job is to make our place boring every day. So I go home. My wife would ask, "How was your day?" I say, "Boring." My kids ask me, "How's your job?" "It's boring." But I mean it in a good way, madam, because a boring day in my job means there's no excitement, there's no security breach, there's no injury, there's no chemical spill.

So we make sure -- our job -- that only authorized people comes on site. The emergency medical team are standby, just there, watching everything. Our fire safety inspectors are doing their job to make sure every fire system, fire suppression are working. The supervisors and the manager are watching over the people to do their job safely. In fact, the employees themselves, they make sure they do their job safely. At the end of the day, we all go home safe. That's a boring day, madam.

Every day.

So if you grant us -- if you grant Cameco 10 years, I assure even to the community of Port Hope we will make sure for the next 10 years every day in Port Hope Conversion Facility is a boring day.

THE PRESIDENT: Anybody else?

Well, thank you. Thank you for this presentation.

MR. FAROLA: Thank you, sir.

THE PRESIDENT: So the next presentation is an oral presentation by the Port Hope Community Health Concerns Committee, as outlined in CMD 16-H8.41.

I understand that Ms More will make the presentation. Over to you.

CMD 16-H8.41

Oral presentation by the

Port Hope Community Health Concerns Committee

MS MORE: Thank you. Good evening, Mr. Binder, Members of the Commission.

I'm accompanied by a fellow board member, Dan Rudka, and we are presenting on behalf of the Port Hope Community Health Concerns Committee.

And this evening we do so in memory of two

colleagues who passed away, Patricia Lawson, who many of you will remember from many of the meetings and hearings, and John Rainbird as well, who passed away last October. We miss them very much.

And John was a victim of an accident at work, and he was a gentleman who never received justice as a result of that accident. And this evening, Mr. Binder, I am requesting a meeting personally with you to review the circumstances of John's accident and the manner in which he was treated by Cameco.

So proceeding with the first picture, this is the beach house in approximately 1955 with Eldorado Nuclear in the background. This is a beach house when I was 17 I and several of my friends painted and cleaned up to turn into a youth centre. And we cleaned up the dead fish along the water, always amazed at how many dead fish there were every time we went there.

In 1975, when the story broke that Port Hope was very contaminated and the beach was very contaminated, this building was taken away to the high level dump at Chalk River.

Moving on to our recommendations. It is now 41 years since that information became public. In all that time, we're waiting for a clean-up, and you will be discussing the progress of that tomorrow or Thursday.

We feel that the issues related to Cameco's presence in Port Hope cannot be resolved by its continued presence here, and we request that a two-year licence be issued with the condition that within this time period this company prepare a plan for approval by the Commission, the Municipality, and the public to fully decommission all of its sites within this town and be gone by 2021. That would mean removing all the wastes, full restoration of all lands in Port Hope.

We also request updated morbidity, mortality, and cancer studies of Port Hope residents and Port Hope nuclear workers, that they be federally funded and independently conducted, and that means no government department and no contractor that has worked for the CNSC or Health Canada, and all data publicly released with funding for independent analysis by community-selected peer reviewers, as was the case when we had Dr. Eric Mintz do peer review of the previous studies.

The next slide simply locates the plants within our community. And you can see they are right in the heart of our town. And you have seen previous slides. This is the Centre Pier where waste is stored. And all along that edge, there are fishermen and the public. It's fully publicly accessible, and you will see it very crowded in fishing season.

There is one road going into the site. Most of you, if not all, have probably been there. There's one road access down to the plant.

This is a shot from around the east beach. You will see slides, children's swings with the mound in the backdrop and a residence and a public roadway, all publicly accessible.

This is Dorset Street East storage site, where there are barrels, some empty, some with residue there, but they have an allowable gamma emission level, higher I believe than the waterfront. And that's a public road and a public sidewalk on which Pat Lawson used to take her son in a baby carriage down the sidewalk.

Now, the Ministry of the Environment Rationale Document in 2010 said that "for a given uranium intake, the inhalation pathway gives doses 200 times greater than ingestion." And yet in a number of instances, we've had Health Canada radiation folks use ingestion as a barometer for risk in Port Hope. I mean, obviously, as you will see from some of Cameco's own diagrams, the common exposure pathway for all Port Hope residents, the most effective dose exposure is through the releases from the plant.

And so what we're doing here today is giving you some -- just some -- of the highlights of the

evidence base to require this plant to move. We have provided over the years -- we have been presenting for 20 years to you. And in very detailed documents, scientific documents we have shown -- today we're doing the headlines -- proving to you, when you know this, that this plant emits uranium every day and a host of other substances.

And there you see -- this is from their own environmental monitoring plan. You see the annual uranium point of impingement model for the community of Port Hope. So there it is. There is the scientific basis for which you should be saying to this plant, You need to relocate.

It is on a flood plain. We had a terrible ice storm a few years ago, and it was a mess down there. Lake Ontario, Lake Erie, they are also on a -- there's a fault line. This is also an earthquake zone. There was an earthquake in 2014 that was approximately 36 kilometres southwest of Port Hope, and it was felt in Port Hope and Cobourg.

Now, when we look at the quarterly reports that Cameco issues, they subtract a background gamma exposure presumed in Port Hope. So the numbers that we actually look at most of the time are subtracting that background, and so those are added on. Those are add-on

exposures for the people who live here.

What is not factored in either is the synergistic effect of the multiple chemicals and materials, and the compounding effect year after year after year for the people who live here.

Looking back at this slide, this is from Zircotec's environmental assessment. This is just a snapshot of what they declared as the history of enriched uranium work performed at Zircotec from 1970 to the present. Now, what it does not include is any period of time where they handled 93 percent enriched uranium, weapons grade, at that plant in a neighbourhood. And they were permitted to do that by the Atomic Energy Control Board, possibly even the CNSC after 2000. That's not on here. Why isn't it?

And the public never knew, as far as we are all aware, that the plants in Port Hope were dealing with enriched uranium at -- certainly at that level. That's unfathomable to have that in this community. And also depleted uranium.

We have trucks going in and out through the one roadway down to the plant. They sit in a publicly accessible parking lot. They travel down Hayward Street, John street, along Peter Street emitting neutron and gamma radiation as they go. They are not covered. There's

nothing mitigating the emissions from these trucks. Then they go onto public highways. There's a shot one day of a truck sitting in the parking lot at Cameco.

Now, this slide, if you look at the column, you'll see 236 uranium. Now that's U-236, substance from recycled uranium in contaminated uranium which we found in our health studies with Uranium Medical Research Centre. Three former workers of Cameco had this in their bodies after years away from the workforce.

This uranium coming into Port Hope is not just natural. We have dealt with recycled uranium, and that has been admitted by previous Cameco vice presidents.

Here, from the Department of Energy -- or sorry, no, this is the Zircotec Environmental Review in 2007. If you just look at the first paragraph, there's the admission that the transport of natural UO_2 adds annual gamma radiation dose not only to the driver but also to others on the road and residents in the vicinity. And then there were estimates of the doses that were received to the public.

Now, the U.S. Department of Energy -- this is to show you where they chart radiological latent cancer fatalities. And this is just from incident-free transportation of radioactive materials. Substance coming from Port Hope, you will see on the first line, and you

will see a calculation there.

Now, there were several health studies done in 2000 and 2002, and those were done under pressure primarily from our committee. In fact, that's mentioned in the front of the cancer incident study. You will see that in those studies -- and I know we've been down this road before, and we've had this discussion before with your staff.

This is federal data from Health Canada reports that showed elevated rates of disease for the people of Port Hope an overall death rate, circulatory, leukemia, non-Hodgkin's lymphoma, cancers including childhood cancer deaths, cancers of the lung, brain, nasal/sinus, esophageal, lip, bone, and colorectal.

Below was a 1998 study done that I don't believe was intended to see the light of day. After it was done, I think CBC obtained these reports under *Access to Information*. A 1998 Health Canada Great Lakes Health Effects Program and there were results for the Port Hope Harbour area of concern that included hereditary, neurological, cardiovascular, respiratory, cancers including lip and oral cavity, pharynx, gallbladder, lung, trachea, bronchus, and bone.

Dr. Eric Mintz, who was paid by the CNSC to do a peer review, analyzed that data, and these were his

findings. And he was saying that there are elevations that are very surprising, they should be unacceptable and, look out, 100 more female deaths than expected in the 1986-1997 period due to circulatory disease.

What happened? The assumption was made, oh, well they must have all been smokers. I mean, that is not scientific, that's ridiculous.

So why no federal health follow-up? In 1979, and we have the clippings to prove this, there were commitments made by federal authorities that \$5 million, and that's in 1979 dollars, that there would be investigations for the people of Port Hope. This was never met.

What happened was there was a very basic Queen's University study called the Lees Study that did in fact show an association of Radon and Lung Cancer in Port Hope. There was no follow-up to that. The number of subjects 23. In fact, the number of people who had lung cancer in Port Hope was far more than that.

But the manner in which, and I'm not saying they had total control over this, I don't believe they did, but on the basis of the study with 23 subjects all further meaningful follow-up on Port Hope people was cancelled.

Now, the Port Hope Harbour Area of Concern

Report 1997, that I just went through, I had a meeting with Herb Gray when he was the Canadian Chair of the International Joint Commission, asking for follow-up on this study. His response, lovely meeting, an hour and a half with -- I took a toxicologist, and his answer was, "Well, they don't really do that kind of follow-up." They did the initial report that showed the findings, there was sympathy, but no follow-up.

Community health survey design; there was a promise of funding by the Atomic Energy Control Board, not implemented. Pilot tracking study; promised, not implemented. Childhood kidney function biotesting; promised, not implemented. The UMRC Health Committee human radio-biological testing results; no follow-up investigations and not included in the CNSC's health study synthesis.

Everybody's concluded, you don't need to study our health.

Now, the U.S. example. The Department of Justice recognizes in law 35 diseases as associated with ionizing radiation exposure. There are two acts, there's the *Radiation Exposure Compensation Act*, which does focus on those who were involved in World War II and in bomb testing.

There's also the *Energy Employees*

Occupational Illness Compensation Program Act, that is very much ongoing. They have actually, at this point, spent \$12.9 billion in the *Energy Employees Act* compensating, and that includes minors, millers, refiners, transporters, and people who worked in the plants. The *Radiation Exposure Compensation Act* has paid more than \$2 billion. Why is this important? Because we have nothing like this in Canada.

The Ontario Fire Fighters, there is a list of diseases stipulated as associated with firefighting. It relieves the burden of people like John Rainbird, people like Dan Rutka, of fighting for recognition of harm done in the workplace. It also would prompt regulators such as yourselves, to take seriously the exposure to people in the community.

Years ago when we started the health committee we were told, you're too small to study, people will never do studies here. We said, so what's the lesson for large corporations? Next year you'll locate in a small town because the harm can never be measured? That's unacceptable.

What we've said now after years of trying to coexist, years of analyzing and coming to you, we have said there is no answer but for this company to move.

We wanted, on this slide, to draw attention to the fact that, according to Cameco's survey

this year, we're higher on the credibility scale than Port Hope Town Council, and we're quite proud of that fact.

We want to say 29 percent of the people who are cited as not having specific concerns with Cameco in Port Hope, please bear in mind it's been five years since a hearing. You do a 10-year licence, who's talking about this plant? Who's watching the shop? We are dying, we are aging, there is no publicity about this plan other than what they turn out in quarterly newspapers to homes, and it looks like everything's fine. Great communicators. It's not fine.

The vision? It doesn't touch the emissions, it's a prettying project designed to bring more people to the waterfront, which is the last place people in Port Hope should be going. It's not ethical to be doing that.

So our message to you is correct a historical mistake; require this plan to move. If they need federal funding to help them do it, we don't object. There is no buffer zone for the public from the operations and the storage. It lacks an essential level of security, it essentially has no meaningful security. With the terrorism risks today, that should be unacceptable. The single-road access presents emergency safety issues. There are ongoing emissions to the Great Lakes --

THE PRESIDENT: Okay. Could you wind up? We've read all of this in detail. Okay?

MS MORE: Yes, okay. I'm almost done.

THE PRESIDENT: So we'd like some discussion.

MS MORE: Okay. So this is an aging, leaking facility, with fugitive emissions, loss of containment to the air, to the soil. It has \$4 million in liability insurance the last we checked. There has been 93 percent weapons-grade uranium in Port Hope, which has never been disclosed publicly until they wanted permission to do down-blending. Transportation, waterfront contamination, restricted use, Port Hope stigma due to the waste.

Now, there's an opportunity for our community to have a full cleanup and restoration of the waterfront. Thank you.

THE PRESIDENT: Thank you. Questions? Who wants to start. Dr. McEwan?

MEMBER MCEWAN: So perhaps I'm going to go to staff to discuss the Mintz study that the interveners have brought up, and to discuss what epidemiological data we do have available please?

MS TADROS: Haidy Tadros, for the record. Thank you for your question. We'll pass it to Ms Julie Burttt to respond.

MS BURTT: Julie Burtt, for the record.

The Community of Port Hope has been studied extensively. Collectively, these epidemiology studies have looked at cancer incidents as well as cancer mortality, and a range of different birth defects. The overall results of these studies complement each other. They have all essentially found the same thing, there is no great evidence of the radiation coming from this facility causing any excess cancers, mortalities, different kinds of cancers in different age groups and different sexes.

What has been found in studies from CNSC, Health Canada, the provinces, academic institutions, is that as with any community there are periods of time, short periods of time, usually around a decade, where select cancers are statistically significantly elevated than average compared to either the general population of Ontario or the general population of Canada.

But these statistical elevations do not persist over time, they're short blips, and they are not -- they don't persist over decades. This phenomenon is not unique to Port Hope, you can look at this in any community in our country, you will have a period of time where a given disease is elevated more so than the Ontario average, because that's what it is, is an average, which means there has to be numbers above and numbers below.

One of the most telling findings is that when you have an elevation, say it's in one group of people, women in this certain decade, you won't find it in men in that same decade or in the following decade, or women over a longer period of time.

So the Community of Port Hope does have elevations of certain types of cancer at certain times, but so does every community in our country.

In conclusion, the Community of Port Hope is as healthy as any other community that we can find based on all of the epidemiological studies that we've looked at; there have been over 14 published specifically on this community. We've paired that with Environmental studies; over 30 have been published in this community, we're looking at contamination of the community, and looking at all of the lines of evidence together, we conclude that this community is just as healthy as any community in Canada.

MEMBER MCEWAN: So is there any variability in non-cancer-related deaths and in paediatric malignancies? The Mintz study, I think that the intervener has quoted there are two or three very specific statements in those quotes, can you help me understand them please?

MS BURTT: Julie Burtt, for the record.

So with regards to the intervener's slide

22, I can start by speaking about leukemia rates. So for the period before remediation, so during 1950s, 1960s, and 1970s, leukemia rates were lower than expected for males and, separately, they were higher than expected for females, but they were still very comparable to the rates in Ontario.

Specifically for childhood leukemia, no evidence of excess incidents or mortality, whether assessed by residence at death, residence at birth, the county level, or nearby the Port Hope Conversion Facility, which also includes Port Hope, Cobourg, Newcastle, the Hope Township, Hamilton Township, Haldimand Township, and whether or not you break the data down between zero and four-year-olds or zero and 14-year-olds, there is no evidence of excess childhood leukemia during that time period.

If you want, I can go into which references those are, which I know even --

THE PRESIDENT: Can you help me here? If memory serves, this has been discussed every time we appear in Port Hope and it was studied, as you said, by many many many studies. So I'm not sure there's any -- unless there's new information and new data, what are we discussing here? Things have already been discussed, put on the record, and the conclusion has been, as you've just suggested, is that

there is no kind of an issue here.

I am not sure we want to revisit this now, unless you're putting together another new piece of information.

MEMBER MCEWAN: I'd still like to understand where these quotes come from. They're specific quotes named to a specific researcher. So how did they appear? Because, if I can understand that, then the rest of the data would be helpful.

THE PRESIDENT: So maybe you can give us the record as to when this study was done, who commissioned it, what the conclusion was, et cetera, just the historical perspective?

MS BURTT: Julie Burtt, for the record.

The studies that are mentioned on slide 22 are a series of reports from the Great Lakes program as well as Health Canada and CNSC, and the province. So all of these findings come from those reports, which were summarized in the CNSC in great detail, INFO-0781, which we have discussed in previous hearings.

So none of this information on slide 22 is new, most of it is accurate, none of the excesses that are named here can be associated with radiation exposures. Because exposures in the community to either radiation and exposures to chemicals are too low to have a causal

relationship.

As for recent studies, one that has not been included in that CNSC document that we have discussed previously is a published study in the Journal of Radiological Protection in 2013 by Chen et al. This study, again looking at cancer incidence in Port Hope from 1992 to 2007 have the same conclusions; there are no elevations in different cancers, different groups of people, over different a different time period that can be linked to the radiation exposures in this town.

MS MORE: May I comment?

THE PRESIDENT: Go ahead.

MS MORE: I have no idea how she can make the claim that the elevated rates of cancers cannot be associated. This is the trick that was done in the compendium from the Commission, which is we recognize there are elevations, we recognize that there are elevated rates of cancer that are statistically significant. But your exposure, based on their assumption of what the dose is, which is totally faulty, it can't have been the radiation.

Now, that's impossible to have any credibility. Everybody's dose in Port Hope is unique. Some people went to Dr. Powers School which had elevated radon gas or St. Mary's School.

These studies were the first part of

implementing our committee's health study design, which was published in June of 1996, and there's a list at the back and I'll give you a copy, of people who worked with us from the Atomic Energy Control Board, from AECL, from the Ministry of Health, to develop a plan of how do you begin to assess the health of the people here, because it hadn't been done.

One of those things was statistical studies, and this was the first part of it. Now, it took some years to get it done. The other part was biological testing, which UMRC helped us with.

The fact is the next step after this was rather than assume who these people are, find out who they are. There's a whole other range of studies that should have been done. Who were the children that died? Where did they go to school? Where did they live? They mattered, and they were dismissed. This is dismissed, and this is a crock and we don't accept it. That's why we revisit it every time we come here, because nothing gets done about the fact that there elevated rates of disease here.

This plant needs to move, you need to study the health of the people, or allow it to be studied, and certainly it should be done when we're facing a massive cleanup. We're an occupied, active living, breathing community surrounded by radioactive waste. It's on my

street, and it has to be cleaned up. We keep finding out where it is. It's on all kinds of the roadways and road frontages in Port Hope.

People have played on that for years, our children, not knowing. Even now, we keep finding out more places. To sit there and compare us and say well, you know, you've got statistically elevated rates of cancer, but you're sort of like everywhere else. No way, you should not accept that from your staff, it's ridiculous.

THE PRESIDENT: Dr. McEwan, you want to follow-up?

MEMBER MCEWAN: So I'm interested in the first bullet.

THE PRESIDENT: Which page?

MEMBER MCEWAN: Of 22. So, again, I want to come back to this Mintz study because these are very clear statements. I haven't read it, I must confess, I should have. What is the evidence that that first bullet is not true?

MS MORE: There is no evidence that that's not true. I know, I guess you're asking your staff. Are you referring to the quote, "The patterns of several cancer rates show cause for concern?"

MEMBER MCEWAN: Yes. It's a bold statement.

DR. THOMPSON: So if you'll allow me, this is Patsy Thompson from the CNSC.

The impression that is given is that the CNSC or Health Canada or others have not taken seriously the concerns of people living in Port Hope and that we've just sat back and not done anything.

As Ms Burttt mentioned a few minutes ago, there's been over 30 environmental studies, there's been a number of health studies conducted from quite a number of years ago, to the most recent study that was published in 2013.

The statements that are made on the slide that you've been asking questions on, Dr. McEwan, the statements are essentially mostly factual in terms of how they've been extracted from documents. The issue is that in some cases there's wide confidence intervals, they're not statistically significant.

The patterns in terms of when they occur in time are inconsistent as well with exposure levels. In some cases you had higher levels of certain cancers at a time when exposure rates or emissions from the facilities had decreased tremendously and the patterns were essentially lower than the Ontario population when the exposures were lower.

So the inconsistency in the patterns, the

lack of statistical significance in some. For example, when there were findings of contamination in Port Hope in terms of high radon levels, there was cleanup activities that were done essentially to remediate the areas where there were serious concerns.

When the statements are made that we don't know what people's exposures are because individuals are different, essentially a lot of the exposures that came from the Port Hope facility and the refinery, the radium plant, before the current facilities, as well as some of the ceramics plants other industrial activities in Port Hope, have all left a footprint of contamination in the soil. Once contaminants are in the soil, they stay there a long time.

So there's been many many many studies done not by the CNSC, but by others independently that have essentially given us a really good detailed map of where the areas of highest contamination have been. By using that information and overlaying it with the patterns of cancer and other diseases that have been observed, the conclusions that have been made not just by the CNSC, but by other organizations as well, is that what we are seeing in Port Hope is not inconsistent with what is being seen in on other communities.

I know that, you know, there's been cases

of brain cancer, for example. We know that brain cancer is not strongly associated with radiation. Exposures in Port Hope were not mainly radiation, they were mainly chemical exposures. None of those chemicals are associated with brain cancer. There's been no excess in terms of birth defects that we could see from all the studies that have been done. No excess in childhood cancers. Leukemia has been mentioned earlier.

So it's the weight of the evidence that has brought the conclusions that we've brought.

MS MORE: May I comment please? If you look at the U.S. Department of Energy, the list that they use and the diseases that they associate as radiation-induced cancers, and non-cancer diseases that they stipulate, this is just not true.

So the information base that they're using, it is much better than the staff use, much more sophisticated these days. They're dismissing on these assumptions and it's ridiculous.

The dose, people were getting uranium in the air, if you go back and look at the air emissions during the 1960s and the 1970s and the 1980s from the plant, the people were using the beach, and they were using the ball diamond that used to exist down there, there were neighbourhoods that were down there.

You cannot compare and make conclusions about exposure and dismiss. What you have to do, if you are truly investigating, is you take the data that you come up with, and you move forward with it. Then you do case control, you do cohort studies, you can do follow-up.

One of the studies we were promised was that all the people who lived in contaminated properties -- and at the time they thought that might be a few hundred -- all of those families would be studied in detail, their health. Now, we have to multiply that by many times because there is so much more contamination than they thought.

But is it okay to throw up our hands and say the job is too big, there are too many people affected? No. This is the beginning. This was just the start and what we need -- this is now data that's 15 years old. What we are saying is we need this updated, that's why it's here again. We need to do this and especially with the cleanup coming.

The low-level folks, they are not planning any health, they don't see that as their department. Believe me, we raised it with them. It's in every intervention we did with the CNSC and with the EAs, to fold in health monitoring.

And how do you do a cleanup of Port Hope,

not have baselines and not keep checking back with them? Is the problem liability? Is that what is standing in the way of all of this? It shouldn't. It should not stand in the way. If there's liability, accept it, pay people, pay compensation, but give people the truth.

This pablum that comes our way that's just dismissive is hurtful for the people that we've loved and lost.

THE PRESIDENT: Okay.

Ms Velshi...?

MEMBER VELSHI: Can I follow up on your last statement because I don't think I understand quite what you're saying.

So with the cleanup that's underway, why do you think that there is an increased health risk associated with that? All the folks involved with the cleanup are going to be monitored, at least as far as what they're exposure is. So help me understand why you think there is an increased health risk with the cleanup as opposed to actually you are now getting rid of legacy waste and making the environment so much better.

MS MORE: Well, I think there are two prongs to that.

One is the discovery of what people have been living with, that they may not have known or they may

have known, and there was nothing to be done about it because there was nowhere to take the waste.

Many people are in that situation and you know that from the reports they have brought to you where they said we are managing waste in place. We have transcripts of hearings where Bob Zelmer and staff came in and said, yeah, there are hundreds of locations and we are kind of watching them to try to make sure nobody changes their building or digs a garden.

So it has been in place, but we are also finding new places. People don't know. So they get gamma through the ground, they have radon in the house, their road frontage is contaminated or the road in front of them is contaminated.

Like I have discovered 2000 cubic metres need to be removed from my street of radioactive waste that my children have bicycled and walked on for years and years. I didn't know about that. And you know what? Nobody has still told me about that.

I found that out by getting information under Access to Information, not of my property, of municipal roadways. What do I find? A picture of my house, the frontage of my house and my roadway across, 2000 cubic metres to be removed.

Come on, there are dozens and dozens and

dozens of properties in Port Hope like that and people don't know yet. That's one pathway.

The other one is when the digging starts, it will be in the air. It will be aerosol and people will be breathing it in. But again, the trick is played, oh well, the dose.

Remember, we have had depleted uranium here that showed up in John Rainbird. We had 236 that showed up in Dan, Andy Johncox and John Rainbird. We have had 93 percent enriched uranium processed in Port Hope. What is in the wastes? What is in the material in the ground? The Low-Level Office is having to grapple and they are not doing isotope testing of all of this uranium, that's what they have said.

So not all of this waste can go in the Port Hope site because it's too hot, it has to go somewhere else, but that is what we have lived with. That has been in the air, that is in the ground. Do not give this plant a 10-year licence. Make this plant move.

THE PRESIDENT: Staff, do you want to comment about the digging up, stirring up, too hot? Not my impression of what they plan and the dust mitigation, the dose monitoring and all that stuff. Can you answer that, please?

MS MURTHY: Kavita Murthy for the record.

So under the EA assessment that was done, any digging, any excavation work that is going to be done, either as a part of the remediation of Centre Pier or by Port Hope Area Initiative as they clean up back yards, will have to have a dust mitigation strategy. This is a part of the licence requirement, so they will have it. So there will not be uranium released into the environment as a result of remediation work.

THE PRESIDENT: Thank you.

MS MORE: That's impossible. You cannot dig -- they have even allowed for the fact that there is going to be dust in the air. Come on. I mean --

THE PRESIDENT: Question...?

MR. RUDKA: Excuse me, Mr. Binder, may I make a comment on that? They have just recently taken --

THE PRESIDENT: No. You will have a chance to talk tomorrow. I think you are online, you can --

MR. RUDKA: Well, Mr. Binder --

MS MORE: No, he is with me. He's a Board member of the Health Committee. He's here to answer questions as well.

MR. RUDKA: Dan Rudka for the record.

I would like to make a comment on just what's going on right now with the cleanup coming out of

the dump as I have been frequenting this town every day.

THE PRESIDENT: We are not discussing the cleanup --

MR. RUDKA: No.

THE PRESIDENT: -- of Port Hope.

MR. RUDKA: No, we're not but it's --

THE PRESIDENT: We're talking about Cameco's licence.

MR. RUDKA: Sir, it's about the dust. We're just trying to verify that. The dust and the --

MS MORE: We're talking about the health study.

MR. RUDKA: The dust in the air presently coming out of the dump as they are taking dirt away has been immense. You drive through it with a clean vehicle, the vehicle is covered with dust. And this is just the start of cleaning out the pit, sir.

And I'm sorry to interrupt you but I think that it was important to the question as the airborne dust is already showing in town, that I have experienced as an out-of-town resident frequenting the town at least every other day. And again, my apologies for interrupting.

MS MORE: We have also seen some of the areas that have been remediated. There has been openness. You know, they are not going to be able to cover this. So

the fact -- and the people on their property, are they going to be moved, are the neighbours going to be moved? Are there going to be backhoes? I mean, no.

So getting back to the health point, the fact is people are going to be living through this. People in Port Hope want to live in Port Hope, they want to stay here, but there is no question you regulate basic on risk, that's what you do. It's not the precautionary principle, it's not the commonsense principle, it's not even a public health principle, it's risk assessment, and what we are saying to you is the risk is unacceptable and it's going to increase when the cleanup starts and look what we have already been living with. So nobody needs to tell us there will be no dust in the air. Come on.

THE PRESIDENT: Thank you.

Monsieur Tolgyesi...?

MEMBER TOLGYESI: This is a question for Cameco.

Two slides, number 8 and number 16. Number eight is with those barrels close to the fence and close to the pathway where pedestrians are walking. Number 16 is a truck which is parked somewhere, I don't know whether it's supposed to be public or private land.

Do you have -- do you measure gamma radiation -- say in Slide 8, how is gamma radiation from

those barrels, what's the content in and how far, you know, do you measure what's the impact of gamma radiation with the distance, if it's declining or you should store those barrels further from the fence, further from the sidewalk?

MR. INGALLS: Dave Ingalls for the record.

Around both site 1, which is our main site, and site 2 we do have environmental dosimeters, as we call them, stationed around the site. All of those are monitoring the gamma radiation at the fence line and all of them are demonstrating that the emissions at the fence line are at ALARA levels, they are very low and a fraction of the public regulatory dose levels.

In the picture on Slide 8, you have six cylinders that are shown in the picture there. Actually, you can see in the picture there is a sign on the fence and the sign on the fence actually indicates that those cylinders are all empty and cleaned. So those cylinders that are stored there do not contain any uranium residues in them. They are empty clean cylinders that are being stored there for future decommissioning.

MS MORE: That has not always been the case. And also cleaned UF_6 cylinders also can have what they call a foot, I believe, where they can still emit radiation even from empty cylinders. But I mean isn't there a basic question if we step back and look at this,

what are they doing there? What are they doing by a fence line? Why do you need an allowable gamma level by a fence line, by a sidewalk and a public road?

And on the other side of that fence is a parking lot for employees and I don't think it's Cameco employees, no, it's of other businesses right in the vicinity. This is a neighbourhood basically where these are located.

So, you know, what happened here is everything got very lax and it was all very easy and we have made the economic trade-off since the 1930s with a plant on the waterfront and it has grown and grown and grown like Topsy and it needs to go and have everything cleaned up. Because if you stand back and look at this, this makes no sense and it would not be approved today to locate here. Isn't that correct? If you really look at this picture, they wouldn't be here, and surely it is your job to pull the plug.

THE PRESIDENT: Thank you.

Anybody? Any others?

MEMBER TOLGYESI: Just to staff. Did you go through those studies and measure what Cameco is talking, that around the fence there is no gamma radiation or very weak or very low radiation which is not a danger or not a risk?

MS MURTHY: Kavita Murthy for the record.

I would like for Ben Prieur to respond to the question.

MR. PRIEUR: Benjamin Prieur for the record, CNSC Project Officer for the Cameco Conversion Facility. I have been a CNSC inspector since 2008 and most recently have been the single point of contact for this file since 2013.

I just wanted to note that in 2015 CNSC staff conducted a waste management inspection of site 2. We spent time and attention on those cylinders that are located along the side of the fence and we confirmed that these cylinders are in fact double cleaned and that was detailed in our inspection report.

MR. JAMMAL: If you will allow me, Mr. President. Ramzi Jammal here for the record.

If you look at intervenor Slide number 18 and Mr. Tolgyesi was asking the question with respect to the protection associated with the transport. Slide number 18, during the environmental assessment and previous licensing process every transport package is required to have a measurement on the outside, but the studies here on Slide number 18 used by the intervenor talk about the fact that the public will be exposed to 1.7 microsieverts per year to 3.2 microsieverts per year.

There is a health limit and there is a regulatory limit based on an occupational limit of 1 mSv. That means 1,000 microsieveverts. The public exposure from the truck is 1.7 micro. So if you do the math, it's a fraction.

So the key point here is the public safety associated with transport is not at all at risk because our job is safety and so is the transport requirement for the truck picture.

And I have the advantage here, I have a screen I can blow up. If you look at the slide of the truck itself, you will see a United Nations number with a placard of radiation source and in it, it says a TI, which is Transport Index, where every container -- it's actually -- I see you flipping, you already passed it, but I will give you the slide number. It is Slide number 15.

On the upper part of the container it says a "permissible gross mass of 15,450 kg." Next to it there is a trefoil. If you magnify it, you can actually see a "TI." So in other words, every container is measured after it has been loaded and making sure that it meets the transport requirement not just for Canada but for the international. Since most of the containers are the best within Canada or internationally, they must meet international requirements under the IAEA.

MS MORE: So may I comment? If you have a child, your child standing at a bus stop at the corner of Peter Street and King Street and those are going by, is that okay that that child gets a dose from that truck and there is a calculation that that's an acceptable risk for the children of Port Hope and the people of Port Hope? It doesn't need to be there, that's our point. We're not saying do away with it all. That's a different discussion. This is it is in the wrong place and it presents an ongoing risk to the people of Port Hope.

This is about silos too. This is an exposure from the truck. So during that day as well there is inhalation for people who live or work in particular areas. They may live in a new home that has elevated radon, they may have a yard that has elevated gamma. So there are silos of exposure that are not factored in when someone says, "Oh well, you know, the slide, there are so many deaths that will happen, but it would take 40 truck loads." No, no. There is an ongoing effect.

The other thing I want to mention is the fence line that you questioned where the cylinders are has the highest level of allowable exposure; is that correct? It's 40? The allowable exposure along that street is higher than the gamma exposure down at the waterfront. I believe it's 40 microsieverts on that street on the theory

that who's going to be there. Well, lots of people are there.

So again, it's a cavalier attitude not taking into account that this is an occupied thriving community and we ask you to take that into consideration and also to please take our input today into consideration on Thursday when you are hearing about the progress of the cleanup. We do not have an intervention on that day, but hopefully our comments today will be factored in.

THE PRESIDENT: Monsieur Tolgyesi, fini?
Dr. McEwan...?

MEMBER MCEWAN: So let me understand.
What is the dose rate at the fence from the barrels?

MR. INGALLS: Dave Ingalls for the record.
I will let my colleague Ms Rebecca Peters actually comment on what the dose rate is around that site 2 location there.

From the barrels themselves, they are cleaned, they don't have a heel on them, they have been washed and plugged, they just need to be disposed of essentially, but there is no uranium left, heel left in those cylinders. So there is no dose coming from the cylinders.

Around both site 2 and site 1 we have environmental dosimeters, as I mentioned, around all of the fence lines and the dose rate at the various locations are

different depending on its proximity to buildings where materials are stored. For site 2, where these barrels are located, the dose is actually coming from the buildings where we have materials stored inside those buildings.

And I will let Ms Peters answer the actual dose question.

MS PETERS: Rebecca Peters for the record.

Just to clarify, the actual action levels for the receptors at site 2, so the Dorset Street site, it's 10 microsieverts per hour for one of the stations and 25 microsieverts per hour for the remaining five stations. At the main site the action levels range from 10 microsieverts -- sorry, .1 microsieverts per hour to .4 microsieverts per hour. Sorry, it was .1 microsieverts per hour to .25 at the site 2.

With respect to the ongoing emissions gamma rates at the fence line, the site 2 was .044 in 2015, and all of the data that we have collected, and we collect this on a monthly basis, that was incorporated into our derived release limit report, which we revised late last year or beginning of this year, which was submitted to CNSC staff and accepted earlier this year. So all of this has been taken into consideration.

MS MORE: So if I may comment that what she just said really doesn't mean anything to a person who

is walking by or who parks their car there. That's technical data adjustment or whatever we want to call that, but the actual reality to people, they have a higher allowable level at that fence line in the neighbourhood than they have at the other sites and yet it is in the neighbourhood, there are people there and they need it for a reason. They need it because they have material inside that is emitting radiation. And people are exposed to it, so it's another pathway, and she just said --

MEMBER MCEWAN: How often do you exceed the action level?

MS PETERS: Rebecca Peters for the record. During the last licence period there were two action level exceedances at the main site, there were no action level exceedances at site 2, which is the site we are discussing.

MS MORE: But please bear in mind that that's the action level. Just the fact of radiation coming out into the street from a building, which most people in Port Hope wouldn't even be aware of, they wouldn't even know that, but it's there.

MR. JONES: Mike Jones --

THE PRESIDENT: I assume you mean by that that there is no safe limit? That's what you're trying to say here?

MS MORE: I'm saying there is no -- in Port Hope --

THE PRESIDENT: They talk about 10 microsieverts per hour. Is that a safe dose to the public? That's what I'm trying to figure out here. So if you walk by it, are you going to get a dose that will harm you?

MS PETERS: Rebecca Peters for the record. No. That is a safe limit. Our action levels are set significantly below our site release limits, which are set at a third of the public dose limit of 1 mSv.

THE PRESIDENT: So isn't that what we are debating here, that there are limits set up by health authorities, you don't accept them basically because you don't -- that's what I hear you saying.

MS MORE: No. No. I --

THE PRESIDENT: Because all of those, even on some of the sites that you discovered, the dose that you actually read, the gamma dose is very, very low, is my understanding.

MS MORE: Well, I don't think you would want it every day and you wouldn't want your children to have it every day, and there are children who live right across the street from that facility who play on the road and bicycle there and that's just -- no, we don't accept this at all, that that's a safe level. The American

Academy of Sciences in the United States has stated, as many other health professionals, there is no safe level.

But what we are saying is if you walk by, is it really conscionable to subject the people of Port Hope to ongoing radiation, like X-rays coming out every time they walk down the street and they don't even know it's happening. So that's what we are arguing. It's not that, you know, we want to get into no safe level, although there isn't, but the fact is we are exposed all the time to risks in Port Hope through a number of pathways. That is indisputable. You have seen the evidence today, you see the evidence from them. But the problem is your paradigm, it's an acceptable risk to keep the company going.

THE PRESIDENT: Okay, thank you. Thank you for that.

Any final questions? Any final comments?

MS MORE: Just I guess to reiterate that we ask you to really give serious consideration that we are going to pursue this, that it's time that this company really began to restore the waterfront, do the cleanup. Right now while the spotlight is on Port Hope and the federal government has committed almost \$2 billion -- and that tells you the size, right, and it will be more than that -- why not let Port Hope have a complete thorough cleanup and have the waterfront back? We still need the

health studies because the horse is out of the barn on the years of exposure, but please let us have that finally.

Thank you.

THE PRESIDENT: Thank you.

CMD 16-H8.37

**Oral presentation by the
Canadian Nuclear Laboratories**

THE PRESIDENT: So the next submission is an oral presentation by the Canadian Nuclear Laboratories, as outlined in CMD 16-H8.37.

I understand that Mr. Hebert will make the presentation. Over to you.

MR. HEBERT: Good evening, President Binder and Members of the Commission. For the record, my name is Craig Hebert and I am the General Manager of the Port Hope Area Initiative, which I will refer to as the PHAI.

With me this evening is Glen Case, Senior Technical Advisor with the PHAI.

On behalf of Canadian Nuclear Laboratories, the licensee for the PHAI projects, I'm here today to provide an intervention in support of Cameco Corporation's application to renew its licence to operate

the Port Hope conversion facility for a period of 10 years.

The PHAI is a federal initiative to implement safe local, long-term solutions for the remediation of historic low level radioactive waste in the municipalities of Port Hope and Clarington. The waste is the result of the operations from the former Crown corporation, Eldorado Nuclear, which operated in Port Hope from the 1930s to the 1980s, on the site that is now Cameco's current operations.

In each community, the waste will be consolidated into new Long-Term Waste Management Facilities. In Clarington, the new facility began receiving waste on November 1st of this year, just last week. The Port Hope facility is currently under construction and is scheduled to open in 2018.

The PHAI is being conducted under a legal agreement between the government of Canada and the two host municipalities and, of course, licences issued by the CNSC. Under the legal agreement, a total volume of 150,000 cubic metres has been allocated in the Port Hope facility for Eldorado legacy waste that has been in storage at Cameco's Port Hope site since before 1988 as well as materials resulting from the decommissioning of former Eldorado, now Cameco, owned and operated processing facilities.

As part of its Vision in Motion project,

Cameco will deliver the materials, consisting primarily of soil and building debris, to the Port Hope facility in accordance with specifically defined waste acceptance criteria. Under the PHAI's Port Hope project, Canadian Nuclear Laboratories is responsible for receiving the materials and emplacing them in the Port Hope project's engineered aboveground mound.

The Vision in Motion and the Port Hope project are being executed in parallel, as both involve work in the harbour on the centre pier and the West Beach areas of Port Hope, and the remediate waste from both projects will be placed in storage in the Port Hope long term waste management facility.

Representatives of the PHAI and Vision in Motion project teams have been working cooperative since the PHAI's inception in 2001 to plan the activities required to meet the obligations of the PHAI legal agreement. This cooperation has included input into the environmental assessment studies for the PHAI and Vision in Motion projects, development of clean-up criteria, transfer of responsibilities from Cameco to CNL for the operation of existing historical wastewater treatment plans, and detailed planning and coordinated -- of the coordinated activities that will be required to implement the remediation of the Port Hope waterfront areas.

The cooperation between the PHAI and Vision in Motion teams has resulted in the development of a number of agreements that define responsibilities and the associated cost sharing for undertaking work in the waterfront area.

The teams consult extensively on the optimal resourcing -- sorry, optimal sequencing of work and the delivery of the waste materials to the Port Hope facility to minimize impacts on the community. At the same time, both CNL and Cameco recognize the importance of keeping the public engaged and informed of developments related to our respective projects.

Communications staff from both organizations meet regularly to ensure there is clarity of their responsibilities, particularly in the waterfront area of Port Hope.

An example of this cooperation was seen in the development and execution of a joint public meeting on September the 26th when Cameco and PHAI management and technical staff updated the community on the coordinated waterfront clean-up and renewal activities.

The Municipality of Port Hope also attended and was consulted in advance regarding the information presented to the public.

CNL supports the renewal of the operating

licence for Cameco's Port Hope conversion facility for a period of 10 years. CNL and Cameco have worked cooperatively since 2001 to build synchronized plans for the integration of the Port Hope and Vision in Motion projects, and CNL has every confidence that our future project activities will be implemented in a safe and robust manner that minimizes the impacts on the community.

Thank you, Dr. Binder and Commission Members.

THE PRESIDENT: Thank you.

Mr. Tolygesi?

MEMBER TOLGYESI: This is a cooperation between PHAI and VIM. Now, up to now, it seems that cooperation is going well, but in case of a disagreement, kind of something substantial, do you have a binding dispute resolution mechanism? How do you do it?

MR. HEBERT: Craig Hebert, for the record.

Between Cameco and the PHAI, there isn't specific binding dispute resolution issue. We have, as I mentioned, some specific legal agreements to deal with specific items in terms of work sharing and cost sharing, but to date, we have not -- certainly not had a dispute that would require a formal dispute resolution mechanism to be invoked, and certainly the way our relationship has been developing, we certainly don't expect it in the future.

MEMBER TOLGYESI: Because usually when we have agreement, it is better to specify before it's coming. It's like a divorce. You don't sign a divorce agreement when you are in the process of divorcing. It's too late because you are in a kind of fighting mode. So that's why I'm asking do you have anything which is preparing you that if there is a disagreement how we will solve it.

THE PRESIDENT: Let me piggyback on that question because we heard the two Mayors, and if you read in between the lines, I think that they're saying to us there is still room for better cooperation.

And I just wonder why don't you put in a formal mechanism where the three organization actually meet formally to try to debate and resolve formally some outstanding issues which are around. We got a hint of them.

MR. HEBERT: Craig Hebert, for the record.

As Mr. Clark indicated earlier in his comments, we do have a tripartite meeting group that does meet on a regular basis, Cameco, CNL/PHAI as well as the municipality, to discuss and interface with the municipality on issues that they have of concern.

THE PRESIDENT: I'm not sure you answered my question, but I'll let it go. This is something outside of our scope, but it's something that I would suggest that,

as Mr. Tolgyesi says, you want to anticipate issues coming downstream.

Ms Velshi.

MEMBER VELSHI: One of the reasons Cameco has given for requesting a 10-year licence is to allow them to complete their Vision in Motion project. You have said that in 2018 you expect your low level waste management facility to be ready to start accepting waste from them.

So based on your schedule, when do you think they will have finished sending you all their stuff?

MR. HEBERT: Craig Hebert, for the record.

You're correct. In early 2018, we fully expect our (indiscernible) to be open. It will be available to receive waste up until it's full, essentially, when we remediated Port Hope. That will take several years, and perhaps Cameco might be able to respond more directly with respect to what their plans to bring waste to our facility is.

MEMBER VELSHI: So if I turn to Cameco, what you're saying is that you won't be the constraint as far as how long it's going to take you to accept the waste. It's how quickly they can ship it to you.

MR. HEBERT: Craig Hebert, for the record.

That's correct.

MEMBER VELSHI: Thank you.

So what's your schedule?

MR. CLARK: Dale Clark, for the record.

I can ask Shane Watson, our program manager, to provide more details on the schedule if needed, but I can say similar to what was shared with the municipality and the public in the recent joint community forum and joint meeting that was mentioned there, that showed our schedule lasting for this project from roughly 2018, the beginning of -- to match with the opening of that facility through the end of 2022. That's the high level schedule that we have shared with the municipality and the public and have built our plans around.

As I say, if more detail is needed, I know Mr. Watson can share more information.

MEMBER VELSHI: Maybe you can share with me what kind of contingency have you built in that schedule.

MR. WATSON: Shane Watson, for the record.

So just to be clear, the Port Hope Area Initiative is accepting waste from a number of sites around the community that they're responsible to remediate. The waste that Cameco are delivering to the waste site is a small fraction of the total that they're receiving.

We work closely to coordinate our schedules, and as they mentioned in their intervention, we

will be fitting within the window with which they are open to receive materials, which we understand they'll be ready to accept in 2018, and at a schedule to stop accepting waste towards the end of 2021. And I understand that they'll be undertaking closure activities in 2022.

We intend to fit within that window.

MEMBER VELSHI: So my specific question that I'm trying to get at is that what's your confidence level in your schedule? Is 2021, end of 2021 or 2022 where you've got a very high level of confidence that you will have actually shipped that legacy waste to CNL?

MR. WATSON: Shane Watson, for the record.

We have a high degree of confidence. Our project plans are progressing, and we, as I mentioned, work closely to coordinate with them on our schedule to deliver wastes. And so I'd say we have a very good level of confidence in fitting within the window they have available.

MEMBER VELSHI: I'll see if I push that a little further because you are requesting a 10-year operating licence. This could be done within six years at the most, this particular aspect of the work.

MR. WATSON: Yes, we intend to start the work when they begin receiving in 2018 and complete the work by the time they close in 2022.

MEMBER VELSHI: Thank you.

The other part of my question is the 150,000 cubic metres commitment they have to accept. And we heard earlier that there is new waste being found all the time.

Is there any likelihood that you may actually have legacy waste that's of greater volume than that?

MR. WATSON: Shane Watson, for the record.

We have done a great deal of work to determine what waste volumes we have to send to the long-term waste management facility. It includes wastes that are in storage on the centre pier in buildings that we have there as well as at Dorset Street, so that is relatively straightforward for us to determine volumes.

Wastes that we're sending will also include buildings, and the volumes of those materials is relatively straightforward to assess.

With respect to soils that we're sending, which makes up the greatest part of what we're delivering to the long term waste management facility, the greatest excavation that we're undertaking on the west side of the harbour, our approach is to do a full excavation in that area. And so the volume in that case is also relatively straightforward to ascertain, and so we have a very good

level of confidence in the volume of material that we intend to send.

MEMBER VELSHI: So you don't expect to exceed that amount.

MR. WATSON: Shane Watson, for the record. No, we don't expect to exceed the amount. We do expect to use a very good portion of it.

MEMBER VELSHI: Thank you.

THE PRESIDENT: Dr. McEwan.

MEMBER MCEWAN: So can I expand that question?

I mean, it's mentioned in the CMDs this is a very complex project. It's a complex interaction between CNL, PHAI and Cameco.

What are the risks of something going wrong during this phase of your licence?

MR. CLARK: Dale Clark, for the record.

I can start and again ask Mr. Watson to add additional information if needed.

First of all, I would emphasize that there's a risk assessment that's been done and there's the -- you know, the study to ensure that the project itself won't have any adverse impact on the public and the environment. That's been done. That conclusion has been reached. And as part of good project management that looks

at the risks that may occur, I would emphasize that for Cameco and for Vision in Motion, this is largely on work and activities that we have demonstrated that we are capable of conducting.

We have, through our waste management program -- and under that program, we have undertaken some activities. Two of the smaller buildings on the centre pier have been removed in the past year. We've done that successfully. And as a good demonstration of our ability to conduct that type of work, we've undertaken similar kind of removal of older, obsolete equipment within certain buildings on the plant site.

We've done that for a number of the past years and, again, we've been able to demonstrate that we can do that successfully.

So the significant components of the work for Cameco and under the Vision in Motion project, I would say that we've had test cases and we've been able to demonstrate to ourselves that we're quite confident we can do that, and we can do it successfully.

MR. PRESIDENT: M. Tolgyesi.

MEMBER TOLGYESI: I have just one.

My understanding is that the harbour sediments will go also to that site and when the harbour sediments will be moved, removed from the bottom of

harbour, it will have an impact on operations.

So do you expect that these harbour sediments will be also moved up to 2021 to the long -- the site?

MR. CLARK: Dale Clark, for the record.

The removal of the sediments in the harbour is not a Cameco activity and is not part of Vision in Motion, but it's part of the Port Hope Area Initiative project, and we are very aware of the work. As mentioned by Mr. Hebert here, we have worked very closely. We're in close cooperation on those points of interaction in particular to make sure that we can maintain a sufficient flow of water to our facility during that time.

We've worked very closely on that and we're quite confident in our colleagues' here ability to execute on that and to do it safely.

MEMBER TOLGYESI: Because it shall be stored on a tier part to dewater, so that means that it's not your project, necessarily, but it's -- you are closely involved because you would like to release that part of land back to the municipality.

So all this is tied together. That's why I'm saying that do you expect that it will go before 2021.

MR. CLARK: Dale Clark, for the record.

I can't speak to the specific date. I

know my colleagues around me here can, but I do know and can confirm that it is within that time window, that before the end of that project of 2021 into early 2022, it is certainly within that window.

The use of that centre pier land would only take place after we have undertaken our work to remove those buildings on that land and allow it to be used for the Port Hope Area Initiative to complete that work.

MEMBER TOLGYESI: Okay.

THE PRESIDENT: To both of you, you now demolish a few buildings, so you have experience now with trying to decommissioning certain parts. And the previous intervenor talked about the fact that you can do it and manage dust and dosage and also about whether you're doing all of this without paying attention to health issues.

Any comments?

The interesting about this is when you remediate them -- and maybe we'll get into this discussion on Thursday -- you will know where the dust is. You will know where people live around there.

Is it a good idea, then, to keep track of it and then do some epidemiological studies or health studies?

I'm not leading the witness here. I'm just trying to hear your opinion about it.

MR. INGALLS: Dave Ingalls, for the record.

I can comment on the aspect of the monitoring that we did during the demolition of the two buildings at the centre pier.

So we undertook that demolition successfully in 2015, and we did both initial monitoring of dust, for example, around the area and during the excavation as well, and during the entire excavation we never saw any high levels of dust being generated.

That operation was also observed by CNSC staff, and they confirmed as well that the operation was being done safely without having an impact on the environment.

THE PRESIDENT: Do they keep protection against inhalation of any kind of material? How does it work?

MR. INGALLS: Dave Ingalls, for the record.

It depends on what aspect of the demolition they are doing. The first aspect, when we take down a building that's not really a demolition in a traditional sense of a wrecking ball, it's more of a dismantlement, so the first step of that is going in and cleaning out any contamination in that building. And

certainly when we're doing that type of activity inside the building itself, that would require some personal protective equipment. But when we're doing the actual physical removal of the buildings, it did not require any additional protection because the contamination had already been cleaned.

MR. HEBERT: Craig Hebert, for the record.

In terms of the PHAI's clean-up activities, there's a comprehensive dust management plan that overarches the bulk of the entire project, worker protection, health and safety, those sort of things are our top priority and action levels and all those things are set in that regard. And as you indicated, Dr. Binder, we're prepared to talk about that quite a bit on Thursday.

THE PRESIDENT: Okay. Anything else?

Okay. We're going to take 45 minutes for dinner, and we'll come back. That will make it 7:15.

--- Upon recessed at 6:33 p.m. /

Suspension à 18 h 33

--- Upon resuming at 7:19 p.m. /

Reprise à 19 h 19

THE PRESIDENT: I found you in my book here.

--- Laughter / Rires

THE PRESIDENT: Okay, we will move now to the next submission, which is an oral presentation by Dr. Neville, as outlined in CMD 16-H8.2.

Dr. Neville, the floor is yours.

CMD 16-H8.2

Oral presentation by Robert Neville

DR. NEVILLE: Thank you very much, Mr. Chairman.

Mr. Chairman, members of the Commission, ladies and gentlemen.

My name is Dr. Robert Neville. I'll just give you a bit of background.

I'm an occupational health physician working here in Port Hope, and across Ontario and across our country of Canada.

After graduating as a pharmacist from the University of Toronto and Queen's University in Medicine, I studied occupational medicine at McGill University, and I furthered my studies at the University of Alberta, in Edmonton.

I'm on the faculty at Queen's University, in Kingston, teaching residents in Peterborough, Ontario. I currently

consult with approximately 15 companies across Canada, and have been an occupational health physician for Cameco for approximately 17 years.

From my point of view, of all of the companies I've had the privilege to work for over the last 30 years, Cameco is really unmatched for its extraordinary support of health and safety.

When I joined Cameco, there had been a vast amount of resources already dedicated to research in terms of treatment of hydrochloric acid burns. This had already been going on for several years. PhDs, Masters Degrees, certainly a financial commitment, and significant energy, were put forward to look into ways which might improve worker health in term for the management of this very serious potential condition.

In addition, in terms of HF, Cameco has sent me to a number of world meetings on the treatment of HF to learn from some of the best in the field to bring this back to our company to help not only in our house, but also in our province.

From these times of learning, we have gone to our local hospital, Northumberland Hills Hospital, to educate the emergency staff, both doctors and nurses, on a number of occasions, as well as over 65 of the paramedics who are attending to our employees should there be an

accident. I would suggest, having witnessed the training, that our emergency responders are as well trained as anyone in our country.

When Cameco decided to import HF from Europe by ship, it was understood that we would have to help some of the hospitals along the 401 corridor to be educated on HF treatment as well, and we embarked, both the nursing staff and myself, to visit most of the hospitals between Montreal and Port Hope, and even to Oshawa, to their hospital, as some of our employees could have a burn, and then be going home to the Durham area as well.

Certainly the training of our responders is not the only -- HF is not the only thing that I think our emergency response team has been successfully and highly trained in. There are many, many different types of emergencies and treatments that these ladies and gentlemen have been very well prepared for.

There are regular training sessions which go on, and our staff are almost religious about how they enjoy and work on being the best they can be in terms of the safety of not only our staff, but also the city at large. We not only make sure that they are aware and understand, but we also make sure that they're healthy and well. We certainly have even advanced to some of the things that the OPP SWAT teams have done in stress testing

our employees who are the highest level of responders and may be put into an emergency situation.

Outside of that, I also appreciate Cameco's interest in education. I was sent to Oak Ridge, Tennessee, to the REAC/TS course, to prepare for any situations that I might be able to help out with radiation-related emergencies. We have done presentations and a slide presentation to our local hospital to prepare our emergency staff, especially in terms of how to treat wounds in case a contaminated wound was to occur at that level.

As you may know, I was also sent by Cameco to Ottawa's Civic Hospital to do a course in ultrasound studies, as you have been doing chest wall thickness, to modify the chest counts in terms of not overestimating or underestimating. But Cameco made a commitment to make sure that these counts were done very well.

The medical surveillance programs that I have witnessed through Cameco over the 17 years are at the top level of any of the companies that I work with. And the employees, I believe, are quite happy to be involved in this program.

These are not just only programs for safety, but there's an awful lot of wellness programs that I don't see very many other places, programs such as the

walking program and the ride-your-bike-to-work program, Treetop Trekking, and again our Alaska forest program, skiing, horseback riding programs.

And I really am delighted to see a strong interest in this company in an area of mental health, where, really, across this province, across this country, we need to devote more and more resources to this area. And Cameco, I know, has a plan, and is already doing great work, but will be doing even more in that area as well.

We also have other programs, such as the Healthy Living Challenge, for our employees, where we ask the individual employees to set goals on a quarterly basis and to be monitored and to have significant reinforcement as they meet these goals.

I'm also pleased to report to you that there's been a significant response, through these wellness programs and through our commitment to health and safety, in terms of cardio-vascular disease. We have, from a hypertension point of view, a cholesterol point of view, much, much better levels of control than we see in other segments of the province, as well as a significant reduction in smoking compared to the remainder of this county and this part of central Ontario.

So, in summary, I think what I have seen here is the very strong commitment to research, to

teaching, to training and to programs. I also can comment that there's been, from my point of view, the highest level of commitment to do all of this in a very ethical environment, and to supply a very caring and compassionate approach to their employees.

It's very difficult for a board to appreciate the environment which workers are faced with, but I think, in terms of a company of over 300, it's quite unique to see as much of a family-type atmosphere in this company as I've witnessed anywhere in my travels over the last 30 years.

Thank you.

THE PRESIDENT: Thank you. Comments?

Dr. McEwan.

MEMBER MCEWAN: Thank you, Dr. Neville.

So we had a long conversation earlier, before the dinner break, on the epidemiology of Port Hope. Do you have any observations on that from -- I guess you're one step removed, but with lots of experience. You can, presumably, give some insights into the epidemiological studies.

DR. NEVILLE: I wouldn't say that I have the level of understanding, perhaps, as you on the panel would have. Certainly, you know, the studies I'm comfortable with are the ones which related to the 1984 and

2006 studies, which have shown that the Cameco conversion employees are certainly of no higher risk from death, and I don't believe from cancer registry statistics as well.

I think that there's the healthy worker effect going on in there, which is a part of it, but I think that my predecessors -- the last study was from 1950 to 2000 -- was part of the situation where we were forcing, especially males, to be subjected to health monitoring, and many people, I think, have then had some important diseases picked up prior to where they may have with their family physician.

Males do not tend to show up until about the day before they die to their doctor, especially in the 1950s, '60s and '70s. That's my impression. I think some of my predecessors have done outstanding work.

I've had the privilege of being given pretty much a carte blanche approach to healthcare as far as the company's concerned. If I've asked, "Can we do this test?", I've not had any resistance, and we've been able to pick up some diseases that may not have been achieved through the family practice office. In fact, we are able to sort of supplement some of the things that doctors are wanting to do, such as one we're moving into right now, which is colorectal screening, with occult bloods, that we're going to try to get all of our over-50s to be doing.

We do PSAs. We've obviously found early prostate cancers with some people, and obviously there's controversy over that. But we have found our diabetics early on with our A1C sugars, we have found, you know our nursing staff and our people, so, you know, embraced the hypertension and cholesterol. We kind of have a great working relationship, I think, with some of the physicians in town here to get people on the go.

So I think, you know, most of the studies are done that you talked about before me, but that process, I think, is carrying on.

THE PRESIDENT: Well, just to follow up, but in any new -- I'm trying to figure out if you systematically check all of the 300 employees on-site? And if you are, have you detected anything that can be attributed to radiation?

DR. NEVILLE: Not at all. I do check all 300 people on-site -- in fact, I don't have anybody who refuses to come and see us -- and I have not seen any situations which I can attribute to radiation at all.

THE PRESIDENT: So with a massive cleanup that's going to happen now in Cameco itself and in the area, is there a need to do some health monitoring issues, things of that nature, moving forward?

DR. NEVILLE: I can't comment for the

community. Others may be better at that than me. We certainly are committed already to monitoring our own staff to, I think, the highest level. And I think if there's something that's going to change, we're going to be on top of that as soon as possible. I'm quite confident of that.

THE PRESIDENT: Okay. Thank you.

Questions?

Mr. Tolgyesi?

MEMBER TOLGYESI: No.

THE PRESIDENT: No?

Okay, well thank you for this.

DR. NEVILLE: Thank you very much.

THE PRESIDENT: Thank you very much.

The next presentation is an oral presentation by Mr. Azugy -- I hope I'm pronouncing it right -- as outlined in CMD 16-H8.11.

Mr. Azugy, the floors is yours.

CMD 16-H8.11

Oral presentation by Michael Azugy

MR. AZUGY: Thank you, Mr. Chairman.

My name is Michael Azugy. I'm here as an intervenor in favour of granting the Port Hope Conversion Facility a 10-year licence.

I am the security supervisor for the site, and instead of telling you stuff that you already know about the pros and cons of the industry, energy demands, consistently low emissions and so on, I chose to tell you my story, and how I came to Cameco.

I was born and raised in Israel, and life being somewhat unpredictable as I can be, I immigrated to Canada in 2007. When I first -- when I was hired at the site in September 2010, I felt that I achieved a personal goal for independence.

There is a lot to be said about being an immigrant or being a new immigrant and coming to a country that is somewhat unfamiliar, all the processes are unfamiliar, bureaucracy again. And in some ways I felt like a kid, altogether I had kids of my own as well, and Cameco gave me the tools to break that, to gain my independence again.

Living in Israel gives me somewhat of a unique perspective on our industry since Israel is dependent on fossil fuel. So you see the -- I experienced the higher emissions, the smog, and how expensive energy can be when roughly the rate of prices goes between triple the amount we pay here.

When I became part of Cameco, it's basically I realized how much Cameco is involved in the

day-to-day life of the community and how much Cameco invests in the education of the Port Hope residents, whether it's in the fall fair, town halls, open houses or any other community event.

I also experienced firsthand how Cameco takes care of its employees in every aspect of our work, from education, also on the nuclear industries in general, and how we fit in the fuel cycle and how our contribution helps all Ontarian's receive reliable, sustainable and cheap energy.

You can be assured we are aware of all the site safety requirements while conducting our duties, and we realize that we are part of a continual improvement system that's being done on-site from a safety cultural perspective. And it's not just us looking at being a number on how we can influence our processes in order to make them better and safer.

Beside me, I'm confident that there are 335 more people and families that basically form the Port Hope Conversion Facility, and I am sure that we are all committed to the continual safe operation of our site, not only for the next 10 years, but for future years to come.

Thank you very much for your time.

THE PRESIDENT: Thank you.

Questions?

Dr. McEwan.

MEMBER MCEWAN: So as the security supervisor, what do you see are the risks to the facility, and are they manageable?

MR. AZUGY: Of course, they are manageable. Every risk is manageable. We are obviously close to the community, which is an added risk for every operation. We are accepting people to our site. That's another risk. We are working with substances that potentially are reliable for either environmental groups or beyond, and we are obviously managing them in the best way possible, to meet our, obviously, safety of employees, the community, and, as well, meet regulatory requirements, or even exceed them.

MEMBER MCEWAN: So one of our intervenors indicated that she felt that the single point of entry was a risk that was perhaps carried more level of risk than it might. Do you have any comments on that?

MR. AZUGY: I actually disagree, because, from my perspective, a single point of entry is much more manageable.

THE PRESIDENT: I thought she made allegations that there's a lot of material loose that can be used for terrorism. I think that was the insinuation here. So what's your thought about that, whether the

material -- there's some material, some legacy material, sitting around that you think they're secure enough that it cannot be used for such activities.

MR. AZUGY: I think she said that there was at one point, and she was right. There was at one point. There is none on-site today, and most likely people can correct me if I'm wrong. But, in any case, all of our product is secure to the highest level, and then we have various systems that, other than the human factor, as security personnel, that we are to monitor and look over that product.

THE PRESIDENT: Do you check on your internal staff for -- you know, most of the people are worried nowadays about an inside job. So do you do any checkup, monitoring, new hires, things --

MR. AZUGY: We do, yes. We definitely do. We have various training sessions. We have security awareness for all employees on-site. There is a continual education for all employees on-site, and I personally meet every employee that has been hired.

THE PRESIDENT: Staff, you do a security check on the site, don't you?

MS MURTHY: Kavita Murthy for the record. Yes, security is a safety and control area, and we have Raphaël Duguay, a security officer, here

today, and he can answer any questions on that.

MR. DUGUAY: For the record, my name is Raphaël Duguay. I'm a security adviser and inspector with the Nuclear Security Division.

Regarding your question, yes, there is a requirement to establish a facility site access clearance. This includes verification of employees, and also includes the verifications of criminal background checks.

As part of that requirement, Port Hope Conversion Facility has implemented this program, and meets the requirements under the regulations. On top of that, they also are required to train supervisors and managers to look at suspicious behaviours, different items that could pose as a risk to either the material that is in the site or also to the workers. And this program has been inspected by security inspectors on an annual basis, and they also meet those requirements.

THE PRESIDENT: Thank you.

MS MURTHY: Kavita Murthy for the record. They're also fully compliant with the security REGDOC for the security of sealed sources, so that's another program that they have implemented.

THE PRESIDENT: Thank you. Anything else?

Mr. Tolgyesi.

MEMBER TOLGYESI: You are taking care of security. As security, do you make tours around on the property, I mean check tours?

MR. AZUGY: Various types, yes.

MEMBER TOLGYESI: And do you have -- in some areas do you have special precautions to take, like, you know, where is the stock material, stock which could be radioactive? Do you have to have special precautions or special personal protecting equipment when you do that?

MR. AZUGY: The site as a whole is every employee is required to don the appropriate PPE. If there is a specific area that we need to get into which already has been determined to have more requirements for PPE or additional PPE than what normally is worn, we already have been notified where, and prepared for it. So we are following all of those requirements as per the site requirement, yes.

MEMBER TOLGYESI: You didn't observe anything that when you do your tour, according to outside parameters, that is a close with, potentially, a population or pedestrians could go or walk around and they could be exposed?

MR. AZUGY: No, because in Cameco, and specifically Port Hope Conversion Facility, we even have approved routes on where to go on-site. There is painted

lines that everybody needs to adhere to. There is a very, very big implication on adhering to safety requirements and regulations, and as soon as an item is being found, it is reported immediately and resolved right then and there.

THE PRESIDENT: Okay, thank you.

Thank you. Thank you for the presentation.

The next submission is an oral presentation by Mr. Deans, as outlined in CMD 16-H8.17.

Mr. Deans, over to you.

CMD 16-H8.17

Oral presentation by Colin Deans

MR. DEANS: Good evening.

For the record, my name is Colin deans. I'm the Training Coordinator for the Port Hope Conversion Facility.

To the panel, thank you for the opportunity to present tonight.

I'll provide you an outline of how we conduct training at the Port Hope Conversion Facility, and also some of my own insights into training and being an employee at the Port Hope Conversion Facility.

I am a certified training and development

professional and I have a background in adult education. I manage a team of eight professionals that also either are adult education providers, technical writers or subject-matter experts.

As the oral presentation from the CNSC staff alluded to in the human performances section, we perform to a SAT-based model. We implemented that fully across the site in 2011. And the system has proven to be very robust and very adaptable to our training and ongoing requirements at the site, and you've already heard interventions tonight where people have seen a great reliance on our training programs, and how successful they have been.

We don't work in isolation. One of the things that I like to highlight is that, you know, Cameco's a -- the Port Hope Conversion Centre is part of a bigger family. We're making sure that we're staying connected with our fuel services divisions and implementing best practices for training across all of our facilities, particularly across the fuel services division.

We have very high standards of what we expect our employees to maintain in terms of training compliance. We manage well over 15,000 qualifications on-site, and we try to make sure that we actually -- we benchmark to make sure all employees are exceeding their

learning plans, which are provided for them on an annual basis.

I'm happy to say that over the last three years, we've exceeded our target -- a 95 percent compliance -- to all training requirements, which would include everything from safety, equality, legal and all their on-the-job requirements, as well, to train as an operator.

Any operator starting in the facility, if they're new, transferring into a new position, returning to work, whatever the situation is, they're coming in with a very robust training plan that's being executed. And should any employee struggle or not meet the requirements to progress through levels, we have a full remediation program to assist those employees as well.

What I also say is that our training records are very well maintained and managed. We're currently housing all of our training records on an SAP-based platform so we can access any training records for an employee. More importantly, the platform allows the employees to access their own training records, access their requirements for their training plan on any given time. If it's computer-based training, for example, they can go right from that platform and can conduct the training themselves as well.

So we have built a very robust training plan that allows our employees to be self-sufficient, but also know where to come for help where they need some assistance.

I would say that I've had the -- I've been with Cameco for six years, I've been in this role for five, and prior to this I worked at many tier 1 companies. They all have very rigorous requirements -- ISO, aerospace, and the like -- and I've never seen a company with the type of rigour and requirements on training for their employees than Cameco. You see real ownership from the employees, that it's their requirements for their job, and they seek out the training to better themselves and better those who are working around them.

And it is a complex business, so the ability to be able to be fully trained and functional in your job is critical. That's why we do put such onus on managing the training at the site, regardless of what type of role the employee is in, specific to the type of role that they're doing.

So it's not a generic program. Depending on what role you have in the company will be the type of training plan that's associated with it.

I would also like to share that you're heard a number of times people try and talk about our

community involvement. And as a trainer by trade, it's something I love doing, I get an opportunity to go in the community and work on behalf of Cameco on some of those functions as well. So aside from some of the things that Dr. Neville also mentioned, Cameco's out and involved with our education with our local high schools to make things like career days. We're involved with the Junior Achievement program with the local elementary school. And we're working with grade seven and grade eight students to help them understand the importance of staying in school, your basic economics. That's the sort of community involvement that, as an educator, I like to be -- I love to be able to do.

So with that, I welcome any questions you might have on the training program at the Port Hope Conversion Facility, and I strongly endorse a 10-year licence renewal for the company.

Thank you.

THE PRESIDENT: Thank you.

Questions?

Ms Velshi.

MEMBER VELSHI: Where do most of your new employees come from? Like where is the feedstock for this facility?

MR. DEANS: Colin Deans for the record.

That kind of bridges a little bit on the recruitment side of the world, but I will say that we do cast a fairly wide net, depending on the work, where we're drawing the employees from. I will tell you that, for example, with our chemical employees that we're drawing from for the production plants, we do have a network of schools that we often work from throughout Ontario. If we're recruiting, for example, for Mike's group, we have set schools that we look to draw from as well. So we have a network with our local educators. Actually, I wouldn't even say local. We go across Ontario to locate these individuals.

MEMBER VELSHI: And is there a fair bit of transfer between different chemical sites of employees or is the work so different that that doesn't much happen?

MR. DEANS: The Northumberland sites, you will find transfers occur between the sites in Port Hope and Cobourg. I wouldn't say it happens a tremendous amount. And we do actually have some work staff that actually are -- work out of multiple facilities. So while they're stationed there at Port Hope, for most of the time they do do work at -- like my staff, for example, will do work across Northumberland sites.

MEMBER VELSHI: And training, is it portable? Like if they receive training at the conversion

facility, can they use that at the fuel manufacturing facility? Or is it site-specific?

MR. DEANS: Well, that would depend on the qualification. But generally it's transferable, particularly if it's around a mandatory legislated-based type of qualification. So by way of an example, if you're trained in WHMIS at conversion facility, that will hold over at CFM.

MEMBER VELSHI: And is there a fair bit of turnover of staff? And I don't know whether it's a question for you or for you. Is there a fair bit of turnover of staff?

MR. INGALLS: Dave Ingalls for the record. Yes, as Colin mentioned, we're very proud of the workforce we have. And we actually have a very low turnover of employees through our organization, which is a testament for the level of commitment that our employees have in our organization. The bulk of the turnover we have are retirees, so within the last few years we have a number of employees retiring that have 35, 40 years of experience at our facility.

MEMBER VELSHI: So my last question on training -- and I know this would be very much role-specific -- but on average, how much time is spent on training and requalification and refresher?

MR. DEANS: I'll take a shot. Again, it's going to be very role-specific, as you mentioned. Some of our production operators, for example, will take -- to go from a brand new operator to a fully qualified operator, it could be in excess of 500 hours of training. And then we have -- we also have annual certifications that -- for folks to maintain. So it's not a one-off. That's the nature of A.D.D.I.E. itself is that it's an ongoing development for that employee.

THE PRESIDENT: Questions? Dr. McEwan?

MEMBER MCEWAN: So you said you had 95 percent compliance with the training requirements. Are there consequences for the five percent?

MR. DEANS: So we're very close to watching that as well. Where individuals are not compliant on specific qualifications to their job, we will make accommodations to make sure that employee gets that.

That five percent typically will result -- is the result of a few phenomenons. An employee was absent or it's, you know, one time we had the trainer in, they're not available, for example. But if it's business-critical for their job, we make sure it's there for them.

MEMBER MCEWAN: So you would actually actively chase them and push?

MR. DEANS: Yeah, I should introduce you

to some of my employees.

--- LAUGHTER / RIRES

MEMBER MCEWAN: And I guess the second question is how do you maintain confidentiality of the training results per individual if they're web-based and if an individual has access to his or her own?

MR. DEANS: Anyone who's taking an online course or CBT, they get notified of their results. The results are only posted back to the administrator back in training, so and those results are localized just to that user. So it's not sitting in a public domain that anyone can go access. And then if it's a paper copy which we generate, it stays with the employee file in a locked cabinet.

THE PRESIDENT: Thank you.

Staff, they claim that they are wonderful. What do you think?

--- LAUGHTER / RIRES

THE PRESIDENT: And if they are, why, you know, there's no more than "satisfactory"? Why is it not "fully satisfactory" in this safety and control area?

MS TADROS: So Haidy Tadros for the record.

To begin with, I'll answer the first part of your question and I'll have our colleagues in training

support the details.

So in August 2014, CNSC published our Regulatory Document 2.2.2 on personnel training. And the document sets out the requirements and guidance needed for the analysis, design, and development, implementation of a robust training program.

In February 2016, Cameco has submitted their latest version of their training plan, which CNSC staff have reviewed and have confirmed met all the requirements Reg Doc 2.2.2, and our colleague Mr. Martin Vesely, senior training program evaluation officer, can give you the detail of sort of the performance of Cameco in this area.

MR. VESELY: Martin Vesely for the record. I'm a senior training program evaluation officer with the CNSC. I've been with CNSC staff for 17 years and I've been looking at the Port Hope Conversion Facility file for over 10 years.

Something that we should mention, just simply not to repeat what Mr. Dean said, is the fact that implicit within the systematic approach to training, which is effectively a management system, is this idea of continuous improvement. And I can say that Cameco has adopted that philosophy and it is intrinsic in their activities.

I'll say from the outset Cameco has seen the safety value in the systematic approach to training and was a -- not only a contributor, but very much a collaborator to the publishing of the regulatory document which specifies the requirements of a training program.

You also heard earlier that this is a unique facility. There has been recognition by Cameco staff as well as CNSC staff that the operators of this facility have a large integral role to play with respect to health safety, security, and the environment. And as such, what you see -- and it hasn't been mentioned yet -- is the fact that the operators' training program have an internal certification process which mimics the features that are found for control room operator staff at nuclear power plants, for example. So there is a robust system that is in place.

I won't go into the "fully satisfactory" aspect of your question, because I'll ask Mr. Bouchard to get into that.

But with respect to training, like I said, they have been a collaborator; they have been a contributor; they do exhibit the features of continual improvement. There is a recognition that their facility is unique, that the operators are unique. They do have, you know, a specific, important role to play. And as such, the

training system as well as the training programs are designed for that.

MR. BOUCHARD: André Bouchard, director of Human and Organizational Performance Division.

In complementary to Mr. Martin's answer, the licensee is in current compliance with its requirements; however, there were some events over the last licensing period that seems to have been identified that there could be potential for improvements with regards to human performance as it will help workers to perform safely in the prevention of error. It's in that light that the rating is actually maintained as satisfying. And then you could see a new licence condition in the licence about human performance program.

THE PRESIDENT: Are you guys okay with this rating? And what are you going to do -- and maybe you -- what do you think you need to do to become "fully satisfactory"?

MR. INGALLS: Dave Ingalls for the record.

As my colleague Mr. Deans pointed out, we are very proud of our training program that we have at the site, and as Mr. Vesely pointed out, we have made a lot of improvements to that program throughout our licence period to the level where our operators are trained as well as control room operators in a nuclear power plant, which

we're very proud of to have that high level of training and dedication there.

I also do agree there's still, as with any program, there's always room for improvement there as well. And we're committed to continuing to improve all of our programs and strive for excellence in all of our programs in all aspects of our business.

THE PRESIDENT: Thank you. Any last words?

MR. DEANS: Just to build off of that comment, it is the nature of the A.D.D.I.E. process for S.A.T., we are always evaluating our programs, and that feeds the analysis piece, which allows us to continue to build, right. So we're often seeking improvements, and it's not a static process. We're training. We're in a continuous improvement loop.

THE PRESIDENT: Thank you. Thank you for the intervention.

I'd like to move now to the next submission, which is an oral presentation by Mr. McNamara. It is outlined in CMD 16-H8.18.

Mr. McNamara, the floor is yours.

CMD 16-H8.18

Oral presentation by Edward McNamara

MR. McNAMARA: Thank you.

My name is Edward McNamara. I'm a production supervisor in the UF₆ plant at the Port Hope Conversion Facility.

I've been with Cameco since June of 2015, so not very long. I'm a testament to the training program. Before I even hit the floor, I had 40 hours of theory just in identifying risks inherent at the Port Hope Conversion site. And then after that I had another 40 hours of process theory. That was before I even got to my office and learned where to hang my hat, so to speak.

Following that, I had another full year of on-the-job training, three months of which I didn't do anything but just follow a guy -- a qualified supervisor -- around just to learn the ropes, followed by another nine months of supervised supervision, so to speak.

The amount of time we put into training our people, like Colin and Dave just spoke about, I've never seen it. I've worked for a lot of really good companies, and I can confidently say that we train really good people and make them better. We make them very, very good at what they do.

There's a saying we have at Port Hope Conversion Facility: there is no job that is so important that we can't take the time to do it safely. That really isn't just something that gets slapped on a sticker and put on a wall; it's how we live our lives when we're at work, and hopefully how we live our lives when we're at home. It factors into everything we do. If we have to stop a job and make it safe, take a step back and re-evaluate it to make it right, we do it. And we never get any push-back from management to do it; it's encouraged. We want everything to be done right. We want everything to be done safely.

What factors into that is time, and time factors into everything we do at the UF₆ plant. Everything takes time and we take the time to do it right, whether that's in training, operator re-evaluations, or just basic communication between crews or departments. To get a job right, we take the time to do it safely and effectively.

The operators and support staff I work with are highly trained individuals that take great pride in their work. I can't think of anyone I work with that doesn't do the best job they can, and they take great pride in being able to say that.

We work together as family. We spend most of our time at work, and it's really -- it's such a good

environment to go to, to know that the people working with you are looking out for you. They're not just there to earn a paycheque. They don't want to make mistakes. The stuff we work with can be dangerous. So the people working with it take such great pride in their work to do the job safely, it allows you to be the best you can be at the job and not have to worry about the consequences because people are always looking out for you and you're looking out for them. It really is a family atmosphere.

Every employee that I work with displays like a questioning attitude. They don't just take stuff at face value. They will always question whether we can do a job better by re-evaluating how we do it or taking the time to do it in another way, and that makes for another part of our safety culture.

Most of the stuff I wanted to talk to you has already been covered by other presenters, so I'm going to stop there. If you have any questions, please feel free to ask.

THE PRESIDENT: Okay, thank you.

Questions? Ms Velshi.

MEMBER VELSHI: So you say you've been in the nuclear industry for four years. You worked somewhere at some other nuclear facility prior to coming here. So you don't have to give us names, but where was it? I'm

kind of interested to know that this environment is so different from where you were.

MR. McNAMARA: I worked previously in nuclear fuel fabrication in Peterborough.

MEMBER VELSHI: So give us a specific example where you've stopped work that you thought was unsafe. I just want to get a feel for the kind of circumstances that would lead to that action.

MR. McNAMARA: Okay. I've never actually had to stop a job that I deemed unsafe. I have, in conjunction with one of my operators, stopped a job and done it another way that was safer than how we were doing it. A few days ago, we were pressure-testing a line, and instead of pressure-testing it right up to the valve and then opening it, we decided to do it in components: drain the system, open up the valve, and test it that way. Just in case there was a yleak, you wouldn't have any high-pressure air coming out of it. And it was the operator's questioning attitude, saying, "Hey, I think this is safe, but this would make it even safer," that led to that decision.

THE PRESIDENT: Dr. McEwan.

MEMBER MCEWAN: So again, this is sort of following up on your paragraph about slowing down, which is sort of counterintuitive to modern practice.

Do you ever feel that there is pressure from higher up the food chain if you say, This is going too fast; We're not thinking this through; We're not doing this properly? Can you be confident that you would be supported in trying to do that and trying to change whatever?

MR. McNAMARA: Yeah, 100 percent I'm confident in that. I've seen it happen.

Everywhere I think a lot of people confuse a sense of urgency with rushing. Like you always have to have a sense of urgency performing a job. A lot of the stuff we do is time sensitive and you want to do the best job possible and get it completed efficiently. But that doesn't mean you rush into it without evaluating all the risks and making sure everything is safe beforehand.

If you do your job correctly, you're going to have all your peas in the pod, so to speak, everything lined up just so, so you know you're not rushing into it. And management encourages us to slow down and take our time. It's kind of a different mindset, but once you get into it, it's really beneficial.

THE PRESIDENT: M. Tolgyesi.

MEMBER TOLGYESI: Is there any recognition or recognition system which, when an employee is proposing something which is better, safer, it's recognized or compensated?

MR. McNAMARA: I'm not sure about compensation, but I know we recognize employees all the time on the morning minutes, which is a conference call that goes between sites. If someone does something noteworthy, it gets shared around through the different Cameco sites, like Person A did this to make this better, whatnot, or good job.

MEMBER TOLGYESI: What about -- could you comment on that?

MR. INGALLS: Dave Ingalls for the record. Yes, we really do adhere to employee recognition programs, and as Mr. McNamara mentioned there, one avenue we have is we -- every morning we have a morning call. It's kind of a status update across the site. It makes sure that we're all focused and pulling in the right direction. And we always start that call every morning with recognition. So we -- various departments around the site share recognition of good examples of good behaviours that employees have demonstrated the previous day.

And in addition to that, we do have other recognition programs as well where we encourage employees to observe those positive behaviours in fellow employees and, for instance, can give them a five-dollar Tim Hortons card, for example, in recognition of that good behaviour.

And we do also have a program that

recognizes if an employee finds an efficiency gain or has a recommendation that saves money, there is a program available where the employee can be compensated for the cost savings that are recognized through that improvement as well.

THE PRESIDENT: Thank you. Thank you very much.

This concludes the oral part for today. There will be a resumption board tomorrow.

But what I would like to do now is to proceed with some written interventions. And Marc, over to you.

MR. LEBLANC: Thank you. So what I'll do, I'll read who is the intervenor that sent the written submission, and ask for each of them if the Commission Members have any questions.

So I'll start with CMD 16-H8.5.

THE PRESIDENT: Oh, God, we'll have to find it.

MR. LEBLANC: Yeah, that's why I'm going to take my time. So it's 16-H8.5, and it's a written presentation by Mr. Jason Wakely.

THE PRESIDENT: H5?

MR. LEBLANC: H5.

CMD 16-H8.5

Written presentation by Jason Wakely

MR. LEBLANC: So do the Members have questions on this intervention? No?

THE PRESIDENT: No. You have one? Go ahead.

MEMBER MCEWAN: Just a simple question. So this intervenor is saying that they provide trucking services for you. Do they benefit from your training program? Can they access opportunities for their employees to use some of your training capacity?

MR. INGALLS: Dave Ingalls for the record. The contract employees used for shipping our product don't receive the same level of training as our employees. They don't have access to our overall training. That being said, though, any contractor we bring on site, including transport drivers, we ensure they have a safety indoctrination to come onto the site.

In the case of Wakely's, they do a lot of our transport of radioactive materials between us and our plant at CFM, and they also receive training on the radiation protection and the transport of dangerous goods training as well for transporting the material.

MEMBER MCEWAN: That would be through your

training program group?

MR. INGALLS: Dave Ingalls for the record.

That is correct. And in the case of contractors such as transport drivers, a lot of the training are kind of prepackaged booklets, for example, that the transport driver would review and have to answer some questions at the end to do that qualification.

THE PRESIDENT: Did you have any accidents between the two facilities?

MR. INGALLS: Dave Ingalls for the record.

Certainly during the last licence period, we have no incidents between the two facilities in terms of a traffic accident. I can't comment in the overall history of ever-ever, but I can't recall any incidents of a traffic accident occurring between the two facilities.

THE PRESIDENT: Thank you.

MR. LEBLANC: We will now move to CMD 16-H8.6, which is a written presentation by Jean-Pierre Pascoli.

CMD 16-H8.6

Written presentation by Jean-Pierre Pascoli

MR. LEBLANC: Any comments? Any questions?

Ms Velshi.

MEMBER VELSHI: One of the comments the intervenor makes is around reliability on the second page. And I know for nuclear power plants we look at things like forced loss rate and so on. So I'm sure you have measures like that too.

So does your facility shut down because of unreliability, like, or is it always planned? Like what would those numbers look like?

MR. INGALLS: Dave Ingalls, for the record.

We have, over the course of this licence period and the previous licence period, really had a focus on operation reliability. It's really our focus to make sure we have reliable operations. So the key to that is that we always want the plant to be available to operate when we want it to operate.

That program is multifaceted and involves maintenance itself, so improving our maintenance practices, so planning, scheduling, coming up with asset management plans, also involves how we operate the equipment ourselves.

We do have a number of KPIs that we use to measure our effectiveness of the reliability program, measures such as OEE, which is overall equipment

effectiveness, and that takes into account whether we're producing at the desired rates and if it's meeting the quality requirements. We also measure up time. So generally, we have very high OEE numbers and very high up time numbers, which represent that when we do want to operate the plants they are available to operate.

MEMBER VELSHI: What's very high?

MR. INGALLS: Dave Ingalls, for the record.

In the UF6 plant, for example, our up time KPIs generally hover in between 95 to 100 per cent.

MEMBER VELSHI: For the other one?

MR. INGALLS: Dale Ingalls, for the record.

In the UO2 plant, we actually measure a little differently, we measure OEE, and typically in the UO2 plant we're in the 80 per cent range for OEE.

MEMBER VELSHI: So why the difference?

MR. INGALLS: Dave Ingalls, for the record.

Really, the difference is UO2 is a very technical product that has a lot more quality standards around it, so that's why we use the measure of OEE, which is a bit more encompassing, includes not only the production rate, but making sure that the product that

we're producing is on spec as well. That's why we use that more holistic number, so it's actually a combination of both quality and uptime.

THE PRESIDENT: Staff, the last sentence in the first page makes the statement, "I'm sure that CNSC staff is quite aware of this program." This is the CIRS. So just curious, whether you actually do get into it to check -- you have access to check the kind of incident? I assume they're all incidents, both reportable and not reportable?

MS MURTHY: Kavita Murthy, for the record.

The CIRS system is a part of management system's audit, so staff when they go on site to do inspection will look at the CIRS system and to make sure that events that are reported in the CIRS system are captured and tracked and actioned on by Cameco

To give more information on CIRS, I'll ask Ben Prieur, Senior Project Officer, to speak, and then Chantal Gélinas, from Management Systems to respond.

MR. PRIEUR: Thank you, Ms Murthy. Ben Prieur, for the record.

Throughout the licensing period CNSC staff always or routinely looked at Cameco or the licensee's CIRS database. The CIRS database is an action tracking tool that the licensee uses track a variety of things, including

actions that are raised as part of CNSC inspections. Therefore, it is a priority for CNSC staff when on inspection to check or confirm the status of actions while on site.

I'll pass it to Ms Gélinas for further information.

MS GÉLINAS: Chantal Gélinas, for the record.

Cameco uses the CIRS system. This system is available for staff. As soon as they notify any problems, they have access to the database and they record the event, and it's reviewed regularly. It's reviewed at least twice a week to assess the significance level. Decisions are made for if there is any investigation or authoritative action.

So our staff has access to enter information in this database, and Cameco tracks that each step of the system is within the timeframe allowed. Related to the audit program, I may say that Cameco ensures that each of its programs is regularly audited and they follow their schedule for auditing their programs.

THE PRESIDENT: Thank you. Anybody else? Okay, thank you.

MR. LEBLANC: The next presentation is by Vattenfall Nuclear Fuel AB, CMD 16-H8.7.

CMD 16-H8.7

Written submission from Vattenfall Nuclear Fuel AB

THE PRESIDENT: Monsieur Tolgyesi.

MEMBER TOLGYESI: This audit was conducted by one of your clients who is using your products. Do you have frequently these types of audits?

MR. INGALLS: Dave Ingalls, for the record.

We actually have a very large number of customer audits that take place throughout the year. Vattenfall is one of our good customers. As it states in the intervention, they audit us every few years. I would say generally every year we have several customer audits throughout the year, and we track the findings from those audits in our CIRS system, as we talked about, and ensure we have corrective actions for any findings of those.

MEMBER TOLGYESI: Are these audits limited to operations, the quality of operations, quality of products or they could cover also other subjects, like public relations, public acceptance, regulatory compliance or something else?

MR. INGALLS: Dave Ingalls, for the record.

It really depends on the customer. Some customers are very focused on the quality aspects. However, a company such as Vattenfall actually looks much broader, so part of their corporate requirements are to make sure that their suppliers, for instance, have robust public information programs and social responsibility programs.

So it really depends on the customer that's auditing, that's how broad a scope it is. But it is quite varied from customer to customer.

THE PRESIDENT: To piggyback on that, did staff see the report?

MS MURTHY: Kavita Murthy, for the record. I'll ask Ben Prieur to respond.

MR. PRIEUR: Benjamin Prieur, for the record.

CNSC staff, while on site, do look at audit reports. In the case of this audit report, I don't recall. But I do want to say that CNSC staff do look at third-party audit reports.

THE PRESIDENT: Okay. Ms Velshi.

MEMBER VELSHI: So we're talking about third-party audits. Do you have something similar to peer audits, like, you know, WANO audits? You said you're one of three or four facilities worldwide. Do you, you know, come and audit each others facilities?

MR. INGALLS: Dave Ingalls, for the record.

We do have a very robust use of experience program at the site and we actually use our CIRS tracking system for that. So we receive information from organizations such as COG where we collect information from around the nuclear industry and we review those incidents and, if applicable, address those corrective actions within our workplace.

In our UF6 business, we do regularly meet with the other converters around the world for what we call the UF6 Safety Working Group, the converters get together.

Recently, the last safety working group we had we also had an enricher participate in that as well. The purpose of that is sharing safety information. So we get together, we share safety incidents, safety improvements that we made that can be shared within the industry to make all of our operations more efficient.

MEMBER VELSHI: But do they come to your facilities and look around with a fresh set of eyes and give you feedback on what you could do better?

MR. INGALLS: Dave Ingalls, for the record.

We don't have a formal audit program around that. But, for instance, the UF6 Safety Working

Group last year was hosted at the Conversion Facility and part of whatever organization was hosting that also hosted two of our facilities.

So we take the other converters around our facility, and part of the discussion from that tour and after that tour is what were their impressions, did they see anything during the tour that they felt could be improved or they thought was a best practice from their experience.

THE PRESIDENT: Anything else? Go ahead.

MR. LEBLANC: The next presentation is by Anna Tullio, CMD 16-H8.12. Any questions?

CMD 16-H8.12

Written submission from Anna Tuillo

THE PRESIDENT: Dr. McEwan.

MEMBER MCEWAN: So this actually takes me to a question I had from the CMD. What exactly is the Conversion Safety Steering Committee? What's the its roles? What's its mandate? What does it do?

MR. INGALLS: Dave Ingalls, for the record.

The formation of the Cameco Conversion Safety Steering Committee, it's a bit of a mouthful, was

part of our safety improvement plan that we developed over the licence period. Really, the fundamental of it is it's a replacement of the original joint health and safety committees that are required through the federal labour code. But what we've done is expand that considerably where the concept of the CSSC is that the employees are actually involved and are setting our safety programs, not just management.

So the whole concept around the CSSC is that workers have much more involvement in setting the actual safety programs, and it's just not dictated, so to speak, through management.

In addition to that, with the CSSC we've also formed a number of what's called subcommittees of the CSSC. Through those subcommittees there are again groupings of approximately seven to eight employees and they have particular focus areas in safety.

For example, we have a team focused on hoisting and rigging, and another subcommittee focused on personal protective equipment. So these groups are focused on certain aspects that we want to make improvements in, and that group of employees focus their attention to make improvements in that area.

MEMBER MCEWAN: Staff, do you have any perceptions or comments on the success or how this looks?

MS MURTHY: Kavita Murthy, for the record.

So staff, as a part of inspections, will review minutes of these meetings and we do get to speak to people who are on the committee.

I'll pass this question back to Ben Prieur to give more precision.

MR. PRIEUR: CNSC staff, during the current licensing period, conducted 27 inspections. During these 27 inspections staff they would look at aspects related to occupational health and safety, even though the scope of the inspection may have focused on a different particular safety and control area. Therefore, over the entire licensing period, and as it's described or as per the conclusion in CNSC staff's CMD, CNSC staff as a whole find that Cameco's occupational health and safety program is satisfactory.

With respect to the CSSC, staff are aware of this program and the subcommittees. Most notably, CNSC staff reviewed and accepted Cameco's occupational health and safety program manual, therefore we found that the licensee's program was adequate.

THE PRESIDENT: Are your employees unionized?

MR. INGALLS: Dave Ingalls, for the record.

Yes, our workforce is unionized. One of the aspects that they've been recognized on is that through the CSSC in development of that program it is relatively unique. I personally attribute a lot of our safety success over the last licence term to the development of the CSSC program, where we've seen our total recorded incident rate drop by over 50 per cent.

Our unionized workforce was actually recognized at the National Steelworkers Conference actually as a nationwide steelworkers conference for health and safety, and they were recognized for their efforts and contributions to the CSSC through the A.Q. Evans award. So it's quite a positive recognition for the union as well.

THE PRESIDENT: So is that the equivalent of labour union or management union kind of committee?

MR. INGALLS: Dave Ingalls, for the record.

That's correct. It's basically the original joint health and safety or labour management, but on steroids so to speak.

THE PRESIDENT: Okay, thank you.

MEMBER VELSHI: So just to make sure that complacency isn't setting in. I mean, yes, you've got these awards and your total injury rate has come down. But your lost time injury performance is not down by a long shot,

right? You had two LTIs last year and two the first half of this year. So for a staff of 300, that's really high for this industry, is it not?

MR. INGALLS: Dave Ingalls, for the record.

Our goal, our joint goal across the site is to strive for zero injuries. Until we get to zero injuries of any kind, our work's not done to improve health and safety.

To provide a bit of context around the last couple years of our lost time injuries, they were all I would say relatively minor in terms of a lost time injury. The two we had this year was one employee received -- they were cutting a piece of metal and pinched their finger, crushed the end of their finger. As they were placing the piece of metal down on a work bench, they got their finger pinched between the metal and the grounding clamp that was on the work bench.

The other lost time injury was an employee walking and they turned to look at another piece of equipment and their ankle folded over and they suffered a broken bone from that.

But all of these incidents, whether it be a first-aid or a medical-aid or a lost time injury, we investigate those immediately and implement corrective

actions to prevent reoccurrence.

MEMBER VELSHI: Fair enough. I think it's a comment for both your report and staff's report, that as I was reading the report there was no acknowledgement that this is not good performance. It was very much hurrah hurrah, we've done so well there. I think two in a staff of 300 is high, that pinched finger could have been a lost finger just as easily. So it could have been serious, even more serious.

THE PRESIDENT: Okay, thank you.

CMD 16-H8.13

Written submission from Lou Rinaldi

MR. LEBLANC: The next presentation is by Mr. Lou Rinaldi, the MPP for Northumberland-Quinte West, in CMD 16-H8.13. Any questions from the Members?

CMD 16-H8.14

Written submission from Diane Flesch

MR. LEBLANC: The next presentation or intervention is from Diane Flesch, in CMD 16-H8.14.

CMD 16-H8.15

Written submission from Douglas Blundell

MR. LEBLANC: The next presentation is from Douglas Blundell on behalf of the Port Hope and District Chamber of Commerce, in CMD 16-H8.15.

CMD 16-H8.19

Written submission from Lynda Kay

MR. LEBLANC: The next submission is by Ms Lynda Kay on behalf of the Northumberland United Way, in CMD 16-H8.19.

CMD 16-H8.23

Written submission from Jeff Gilmer

MR. LEBLANC: The next submission is from Mr. Jeff Gilmer in CMD 16-H8.23.

CMD 16-H8.28

Written submission from Kevin Wharmby

MR. LEBLANC: The next submission is from Mr. Kevin Wharmby in CMD 16-H8.28.

THE PRESIDENT: So the intervention talks about the conversion facility holds countless tools. There are facilities from IAEA, emergency responders, local community members, et cetera.

Give me a feel as to how many tools do you do a year? Presumably, you have a day job, so who's doing the tools? Are all those things going away? How many IAEA kind of visits and audits do you get?

MR. INGALLS: Dave Ingalls, for the record.

In terms of general tours, we do open our doors for community groups and members that are interested in coming and touring our facility. I don't have the number at my fingertips, the actual number of tours, but it's got to be a few dozen at least that we do throughout the year. An example that was listed here was the Northumberland paramedics, so we had over 100 Northumberland paramedics tour our facility.

Even some local interest groups. Another interesting one we had recently was it was called the ROMEO group, it was Retired Old Men Eating Out, is what the ROMEO group stood for.

--- Laughter/Rires

But they were interested in touring our facility and we opened our doors and toured them through

the facility.

In terms of the IAEA inspections, we do have a number of IAEA inspections throughout the year. We have a number of short-notice random inspections, I'm not sure of the number off the top of my head, perhaps --

THE PRESIDENT: I see somebody from staff willing to --

MR. INGALLS: Oh yes.

THE PRESIDENT: -- provide that.

MR. BURTON: So for the record, my name is Patrick Burton, I'm a Senior Safeguards Advisor with the CNSC.

Cameco gets visited fairly frequently by the IAEA, they could run anywhere from three to five visits from the IAEA, inspections from the IAEA in a year. As Cameco just said, there's a few different kinds. The most frequent is a short notice random inspection where Cameco receives a 48-hour advance notice of the inspection. There are other types that have larger scopes, larger notification periods but, yes, so about three to five visits a year.

THE PRESIDENT: Is that good, bad, too many, too little?

MR. BURTON: So one of the roles that we play as the CNSC is to try and moderate the number of IAEA

inspections in Canada. We certainly want them to be able to fulfil their mandate, to be able to conclude that the nuclear industry in Canada is exclusively for peaceful purposes, but we want them to do that in as few inspections as possible.

So if we felt they could do it in less, we would encourage them to do that. But they are an independent organization, they have their own mandate and they have their own legal rights and, to a certain extent, the amount of activity they perform in Canada or at Cameco conversion specifically is up to them.

They view this facility as a unique facility in the world in terms of facilities that are under safeguards. So they look at it as a large complicated site with a large throughput. We remind them that throughput is naturally uranium and from a proliferation point of view is a relatively low risk. So there's always a back and forth on what the appropriate amount of IAEA inspections at the site is.

THE PRESIDENT: Thank you.

CMD 16-H8.30

Written submission from Eugene Todd

MR. LEBLANC: The next submission is from

Mr. Eugene Todd in CMD 16-H8.30.

CMD 16-H8.32

Written submission from Laurie Bradley

MR. LEBLANC: The next submission is from Ms Laurie Bradley in CMD 16-H8.32.

CMD 16-H8.33

**Written submission from
Habitat for Humanity Northumberland**

MR. LEBLANC: The next submission is by the Habitat for Humanity Northumberland in CMD 16-H8.33.

CMD 16-H8.36

**Written submission from
United Steelworkers, Local 8562**

MR. LEBLANC: The next submission is from the United Steelworkers, Local 8562 in CMD 16-H8.36.

I would note that there are a number of representatives from United Steelworkers, perhaps other locals that will be presented early tomorrow.

So any questions on this submission?

Ms Velshi...?

MEMBER VELSHI: I mean I have a question, though I don't know whether I should wait for tomorrow, but let me ask and then you can tell me if I should.

So in this submission, the second last paragraph there is discussion around budget reductions and operational change. Can you elaborate on that, particularly as it may have implications on the areas that we are concerned in, where there have been changes in staffing, level of community support as a result of budget reductions, and what are these operational changes that are being referred to here?

MR. INGALLS: Dave Ingalls for the record.

As with all of the nuclear industry, our business has been challenging lately, and what is referenced in the CMD here is that some of the operational changes that have occurred at the site is we are not operating both of our plants at full capacity, so that leaves some time of the year when the plants aren't operating. We are taking advantage of that opportunity and redeploying our operators and employees to do work such as the early works that we have been doing for the Vision in Motion projects, for instance the equipment removals.

One of the overriding -- the overriding message with all of the operational changes and the budget

constraints that we have is that no matter what changes we are making we cannot sacrifice our focus on safety or our protection of the environment and that remains our top priorities.

MEMBER VELSHI: And I know that a number of intervenors have commented on the fact that your production numbers have not been included in the CMD or in the staff CMD, and I'm sure we will discuss this further, but as a percentage of what your licence limit is, what has been your output over the licensing period?

MR. MOONEY: So it's Liam Mooney for the record.

On that, we do in our -- looking at our securities requirements, we have to be cognizant of what we disclose and don't disclose. So in our annual information filings we provide information around a mixed number that summarizes the production between the two. And it's a bit more complicated than that even because it involves chemical fuel manufacturing as well. So that's part of the reason we can say definitively that we are below the licence limit and the annual daily limit while we produce safely at the conversion facility.

MEMBER VELSHI: Thank you, and I know we will discuss this further probably tomorrow.

So as far as these budget reductions, and

you have seen a lot of intervenors here talking about the great community support from Cameco, has that changed in any way as a result of your reductions, budget reductions?

MR. INGALLS: Dave Ingalls for the record.

As we have been tracking our community support over the last five years, in fact we have seen community support increasing and really that's a testament to our employees, volunteers and our participation within the community that's reflective of that.

MEMBER VELSHI: Thank you.

MEMBER MCEWAN: So I was a little concerned by paragraph 3 in this intervention. The implication of this is that you randomly ask people on the shop floor to take over security responsibilities, with no expertise in the field. That's what it says. How does that fit with what we have heard from your security lead in one of your other --

MR. INGALLS: Dave Ingalls for the record.

That wasn't how those changes occurred. In fact, the change that we made within the security group was we actually expanded the number of security employees and we did that by recruiting from the street, so to speak, security professionals to increase our workforce. And the budget reductions that are referenced there is actually we displaced contract employees which cost more dollars than

our own employees, we displaced contract employees with Cameco employees and through that our employees at the conversion facility also took over some security functions at the Cameco fuel manufacturing facility. But all of the increase in the number of security guards as a result of that were all hired as professional security members.

MR. MOONEY: So it's Liam Mooney for the record.

I think it's important to clarify too, the individual is from USW Local 8562, which is the Local that represents the security guards. So when you get to the third paragraph, he's talking about members of that Local being asked to move.

THE PRESIDENT: In the same way, one should look at the next paragraph and explain that to me. They seem to be happy with taking emergency responder team of the emergency medical team. I didn't understand what happened there.

MR. INGALLS: Dave Ingalls for the record.

We made some changes within our emergency response team and emergency medical teams during the licence period, and really the changes there was we wanted to ensure we had emergency medical team members available 24/7 throughout our operation. Historically, our emergency medical team were a group of volunteers and we had a hard

time because most of them were on day shift only covering the shift work. With the security group, which is who this Local represents, they represent a good portion of our emergency response team as well, they are at the site 24/7, they already have the skill set for emergency response from the fire and the chemical response. Adding the medical part onto their qualifications made sense.

THE PRESIDENT: So, staff, are you happy with this change in the emergency management and why did it come from Cameco and not from staff doing a -- if the emergency management wasn't available 24/7, that would have been a deficient kind of a thing. So I'm trying to figure out -- it's a good idea, I think everybody accepts that, but who triggered the idea?

MR. INGALLS: Dave Ingalls for the record. It was initiated by Cameco. And to be clear, EMT stands for Emergency Medical Team, not Emergency Management Team. So we do have minimum complements that we need to maintain at our site at all times, which represents our emergency response team.

THE PRESIDENT: But it does say emergency responder team members assume the emergency medical team.

MR. MOONEY: That's correct.

THE PRESIDENT: So to me that's sort of --

MR. MOONEY: They assume greater training

and greater responsibilities within their role.

THE PRESIDENT: Right.

Any comments from staff?

MS MURTHY: Kavita Murthy for the record.

I will give you a general comment and maybe we can go back to this tomorrow because Peter St. Michael, who is the specialist who looks at emergency preparedness, is not in Ottawa.

But generally, the requirement for Cameco to conduct emergency exercises is a requirement that we monitor very closely. We go and CNSC staff will be present when these exercises take place. They make sure the right type of people in the right numbers are present when these exercises are taking place.

I know there have been full-scale exercises both in cooperation with the municipality and the local fire and emergency response teams as well as internal to Cameco emergency exercises that have been conducted.

If the Commission would like more detail, we will ask to respond to this question more fully tomorrow.

THE PRESIDENT: Thank you.

Marc...?

CMD 16-H8.39

Written submission from YMCA Northumberland

MR. LEBLANC: The next submission is from the YMCA Northumberland in CMD 16-H8.39.

CMD 16-H8.40

Written submission from Women in Nuclear Canada

MR. LEBLANC: The next presentation is from Women in Nuclear Canada in CMD 16-H8.40.

THE PRESIDENT: I'm looking at the report by EnviraMet which was appended to this submission and on page 8 they are talking about "42 business processes have been developed, documented and implemented." Can somebody explain what does that mean?

MR. INGALLS: Dave Ingalls for the record. Those business processes referenced there is referring to our operation reliability program that we have implemented during the licence period. Some examples of business processes referred to there would be for instance the documentation of our planning and scheduling processes. Another business process could be the development of acid management plans for a piece of equipment.

Through our operation reliability plan we evaluate all of our business processes around reliability and basically form new white papers to how to improve those and those are the business processes that are referenced here.

THE PRESIDENT: So I read this to mean, and maybe that's wrong, that it was sort of new. I assumed you always had business processes documented indicators. That gave the impression it was something new here.

MR. INGALLS: Dave Ingalls for the record. For most cases we did have existing documented processes for these. As we went through the operation reliability program we enhanced those programs or improved them to increase their effectiveness.

THE PRESIDENT: Oh yeah, we know all about documenting processes. Any other -- this is an inside joke.

--- Laughter / Rires

THE PRESIDENT: Anybody else?

Ms Velshi...?

MEMBER VELSHI: When you do your public opinion surveys, is there a big difference by gender on level of support for your operations?

MR. CLARK: Dale Clark for the record. Not that I recall. We do look at that

data. We have a pretty extensive polling and there has been a lot of discussion over that polling. We can take a look at that more closely and address that tomorrow if there is. Not that I recall though.

MEMBER VELSHI: That would be helpful.

Thank you.

CMD 16-H8.44

Written submission from John Morand

MR. LEBLANC: And the last written submission is from Mr. John Morand in CMD 16-H8.44.

I note that Mr. Morand will be making a verbal presentation on Thursday morning and that most of this submission pertains to the Port Hope Area Initiative. So I don't know if the Members have any questions on perhaps the first point of this, the rest of it going to --

No?

THE PRESIDENT: Yes, we will do it then.

MR. LEBLANC: Yes. Good.

--- Pause

MR. LEBLANC: So this ends this portion of the hearing. We will resume tomorrow morning at 8:30 with the remaining 18 oral presentations and I wish everyone safe travels and perhaps a long election night awaiting us.

--- Laughter / Rires

MR. LEBLANC: So good evening. Don't forget to bring back your interpretation devices and pick up your ID card for those who have borrowed equipment.

Thank you very much and have a good evening.

--- Whereupon the hearing adjourned at 8:50 p.m.,
to resume at 8:30 a.m. on Wednesday,
November 9, 2016 / L'audience est ajournée
à 20 h 50, pour reprendre à 8 h 30 le
mercredi 9 novembre 2016