

Canadian Nuclear  
Safety Commission

Commission canadienne de  
sûreté nucléaire

Public hearing

Audience publique

April 29<sup>th</sup>, 2021

Le 29 avril 2021

Public Hearing Room  
14<sup>th</sup> floor  
280 Slater Street  
Ottawa, Ontario

Salle des audiences publiques  
14<sup>e</sup> étage  
280, rue Slater  
Ottawa (Ontario)

*via videoconference*

*par vidéoconférence*

Commission Members present

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Dr. Timothy Berube  
Dr. Stephen McKinnon

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M. Stephen McKinnon

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Mr. Marc Leblanc

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Ms. Lisa Thiele

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by videoconference / par vidéoconférence

--- Upon resuming on Thursday, April 29, 2021

at 10:30 a.m. / L'audience reprend le

jeudi 29 avril 2021 à 10 h 30

### **Opening Remarks**

**THE PRESIDENT:** Good morning everyone and welcome to the continuation of the public hearing of the Canadian Nuclear Safety Commission on the application by Cameco Corporation for the renewal of the licence for the Cigar Lake Operation.

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

I would like to begin by recognizing that our participants today are located in many different parts of the country. I will pause for a few seconds in silence so that each of us can acknowledge the Treaty and/or traditional territory for our respective locations. Please take this time to provide your gratitude and acknowledgment for the land. As well, I would like to acknowledge that the Cigar Lake Operation is located in the traditional territories of the Dene, Cree and Métis peoples.

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

For those who were not here yesterday, I would like to introduce the Members of the Commission that are with me on the Panel today, also remotely:

Dr. Stephen McKinnon and Dr. Timothy Berube.

Ms. Lisa Thiele, Senior General Counsel to the Commission, and Marc Leblanc, Commission Secretary, are also joining us remotely.

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

Marc, over to you.

**M. LEBLANC** : Merci, Madame la Présidente.

Bonjour, Mesdames et Messieurs. Bienvenue à l'audience publique de la Commission canadienne de sûreté nucléaire.

The Canadian Nuclear Safety Commission is about to resume the public hearing on the application by Cameco Corporation for the renewal of the licence for the Cigar Lake Operation.

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

To make the transcripts as meaningful as possible, we would ask everyone to identify themselves

before speaking.

Transcripts will be available in one to two weeks.

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 close of the hearing.

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

As usual, the President will be coordinating the questions. During the question period, if you wish to provide an answer or add a comment, please use the Raise Hand function.

Four intervenors are scheduled to present this morning and the Commission will also be addressing the written submissions before rounds of questions.

Before we start, I would like to remind intervenors appearing before the Commission today that we have allocated 10 minutes for each oral presentation and it would be appreciated if you could help us in maintaining that schedule.

Your more detailed written submission has already been read by the Members and will be duly considered. There will be time for questions from the Commission after each presentation and there is no time

limit ascribed for the question period.

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

President Velshi...?

**THE PRESIDENT:** Thank you, Marc.

The first presentation is by the Métis Nation-Saskatchewan, as outlined in CMDs 21-H2.31 and H2.31A.

I understand that Elder Max Morin will be offering us a prayer and opening remarks before the presentation.

Elder Morin, the floor is yours.

**ELDER MORIN:** Maarsii. Thank you.

I will say a prayer in my language and I will interpret it in English.

--- Indigenous language Prayer /

Langue autochtone parlée

**ELDER MORIN:** Oh Heavenly Father, in Jesus' name we just ask you to bless all the participants in these hearings today. We just say a special prayer for our government at the federal and provincial levels, our First Nations, Métis and the Inuit governments.

We just say a special prayer for people that are suffering with COVID-19, a special prayer for all those people that are ill so they can be healthy again and participate in our society.

Oh Heavenly Father, we just ask you to bless our land and our people. In Jesus' name we pray. Amen.

Just some opening remarks.

I was involved, not as much now, I was much younger in the '70s when Cluff Lake Board of Inquiry was on and our Elders at that time were asking for the federal and provincial governments if they okay the mine that they would get a Northern Development Committee or a Board established for the North.

And also, they had talked about resource revenue-sharing because when the mines close we will still be here. We were here in 1776 in Île-à-la-Crosse, 1774 for example in Cumberland House. Our communities are quite old and we will still be here after the mines are shut down. So we wanted to make sure that there was a fallback position for our people.

Also, as Métis we are now considered Aboriginal people according to the *Canadian Constitution*. Section 35 says the First Nations and Métis and Inuit are the rights-bearing people, and the rights-bearing people



are who the Supreme Court of Canada ruled that they are the ones to be consulted with when development happens. So we can't be put on the back burner anymore as Métis and we have a claim in this territory that Cigar Lake is going to be developing -- asking for a renewal of their licence. We have traditional territory in that area and our people made their livelihood from that.

And one final point is in the 1930s the federal government gave most of the land, particularly in Northern Saskatchewan, to the provincial government. And we were already here, our people were already here making their livelihood from that land and we were never consulted. Nobody has ever talked to us and all of a sudden the provincial government has access and they can decide who develops the property.

And if the Nuclear Safety Commission is when you own the licence or has been asked to renew the licence for Cigar Lake, then we want to make sure that our people are looked after. I think it is pretty hard for the Nuclear Safety Commission to grant a licence and then at the same time here are issues and concerns. I don't know how much impact and input you have in regards to our issues particularly in regards to benefits and stuff coming back to our people, because millions and millions and millions of dollars are going out and yet some of our people got

jobs, but it isn't no legacy or nothing is left behind for us if the mine shuts down. Key Lake is going to be shutting down pretty soon, Cluff Lake already. All it is is a big hole in the ground and we don't know if it is going to be pollution in the future or not.

Thank you. Maarsii.

**THE PRESIDENT:** Thank you very much.

Is Mr. Calette making the presentation for this submission?

**MR. CALETTE:** Yes, I am.

**THE PRESIDENT:** Over to you then, please.

**CMD 21-H2.31/21-H2.31A**

**Oral presentation from Métis Nation-Saskatchewan**

**MR. CALETTE:** Thank you.

My name is -- for the record, my name is Mark Calette, I am the Senior Director of Lands and Consultation for the Métis Nation-Saskatchewan. I am glad to present today on behalf of the Métis Nation-Saskatchewan.

Generally, our President Glen McCallum would be with me, but he is unable to be here today and he sends his regrets.

Before I get going with my presentation, I

would like to thank Elder Morin for his prayer and good words. This will help us and help the hearing to get started in a good way.

With that, I am going to start my presentation.

So this is just a brief overview of what I am going to be talking about: who are the Métis, history of uranium mining in Saskatchewan, consultation and engagement, recommendations. And this is just going to be building upon the written intervention we already submitted.

So we as Métis people, we are recognized as protected Indigenous peoples or Aboriginal peoples under section 35 of the *Constitution Act, 1982*. And of course this is very important to us. This is -- you know, our people, that is just how they conduct themselves on the land, this is how they provide for themselves, this is how they carry out life and so this is a very important point for us in this hearing process.

You will notice there under the second bullet that we are very concerned about how historically and currently our Métis Aboriginal rights are not treated in the right way. They are actually treated as lower priority as compared with the Aboriginal rights of First Nations, which is not defensible under Canadian law. You

are going to hear that theme a couple of times during my presentation.

Also, we want to work with the CNSC and the proponents like Cameco in a spirit of reconciliation and we think there are going to be good opportunities to do that through this relicensing process.

We want to also highlight that in a 2015 Calls to Action the Truth and Reconciliation Commission of Canada made specific recommendations for reconciliation in respect of the mining industry and so we are certainly looking forward to working with everyone, the CNSC and all the uranium proponents, including Cameco, in that spirit of reconciliation.

I will go on to my next slide.

We also wanted to take a couple of minutes here to talk about the Métis rights, but also how they are also a part of the United Nations Declaration on the Rights of Indigenous Peoples. So again, this is going to be a repeat a little bit from the previous slide, but we need to be treated in the same way as all the other Indigenous nations. We know that UNDRIP isn't actually enforced here in Canada, but we know that the principles of that are very important and we certainly want to be treated equitably and fairly, just like all the other Indigenous nations are in Canada. We see this as an important point to make.

Let's go on to my next slide, please.

Click it here.

Okay. So we are going to talk a little bit about the history of uranium mining in Saskatchewan.

So we know that the uranium mining industry has been in effect in Saskatchewan since the 1940s. We know that Beaverlodge and uranium mining in around Uranium City has been going on, you know, since that time. Obviously, mining has moved further south from those locations, those being in the far northern part of the Athabasca Basin, but the important point we want to make here is that the Métis Nation-Saskatchewan has signed a Framework Agreement for advancing reconciliation and that was signed between the Métis Nation-Saskatchewan and Canada in 2018. It provides a process for recognizing and respecting Métis land claim within the Homeland.

This Homeland or this Northwest Land Claim is really a part of not only our Homeland but really a part of where the uranium industry is taking place. So we really feel that the whole industry has moved forward with us watching from the sidelines and that is not going to be okay moving forward.

We want to have meaningful participation because our community members are going to be and have been significantly impacted by the mining industry.

So we wanted to also discuss that the Métis are asserting aboriginal title under this claim and because Canada has agreed to negotiate this land claim, then we are under the assumption that the CNSC would recognize this rights-based process. And it is very important to us that the CNSC ensures the proponents work with us in a meaningful way, because again, this work, this mining industry, uranium mining industry is really taking place in the heart of our homeland and in this land claim.

I am not going to read the whole second bullet, but I think there are some important points to be made in there.

We as Métis people, we are not against development, we are not against mining, we are not against trying to improve the lives of Northerners and especially the Indigenous communities. What we don't want is it to happen while we are standing on the sidelines looking in. We would love to actively work with the CNSC and the proponents, with them respecting our asserted rights, and working with them to be a part of these processes so that our citizens and our communities can benefit. But also, we want to make sure that we have a large role in protecting these lands and these places, because the land and all that it gives our people is really their grocery store. It's where they trap, it's where they gather foods and

medicines, and we want to make sure those things are not permanently or irreparably damaged.

So this is very important to us as Métis people and we look forward to working with the CNSC and Cameco to continue to improve our participation in the mining industry.

We can now go to the next slide.

So this particular area here talks about consultation and engagement. We know that Cameco is assisting the CNSC in its consultation and accommodation obligations. When we had our consultants go through all of the information that was on record, we didn't see much there in terms of engaging with the Métis and so we don't really feel there is enough for CNSC to be relying on to meet their duty to consult obligations.

When we looked through the materials we were able to find a mention of Métis in the Executive Summary. We also noticed that there was a mention of meetings -- or a meeting with Northern Region 1, our Locals number 50 and number 80, and we also know that there is a single Métis Local In Northern Region 3 that has arrangements with Cameco, but other than that there really is not much there. So that is very concerning to us.

So we are concerned with the extent of this engagement shortfall and we are very concerned about

how this is going to be relied upon moving forward by the CNSC in its duty to consult obligations and that is in specific to Métis Nation-Saskatchewan.

When we reviewed the documents we didn't really find any engagement with the Métis in Northern Region 3 during the relicensing. That is either through Northern Region 3 or through Métis Nation-Saskatchewan directly. I oversee that entire department and we didn't remember seeing anything in our review or over that time period regarding this particular renewal.

I will go on to my next slide.

Okay. So here are 10 things that we feel are really, really important and we really feel that these things could be addressed with an agreement between MNS and Cameco and so we are actively hoping that they will come to the table and work with us on these 10 items. For emphasis sake I am going to go through them.

So number one, participation in Cameco's activities.

Number two, Métis traditional land use study.

Number three, Métis economic development statistics.

Number four, delay to complete identification review process.



Number five, provide a long-term mechanism for engagement and participation.

Number six, provide a long-term mechanism for Métis Nation-Saskatchewan involvement in monitoring.

We are also looking in number seven for a traditional food study.

Number eight, we are looking forward to setting up monitoring indicators.

Number nine, participation in the decommissioning process.

And number 10, participation in economic opportunities and planning.

So from our perspective, these are the things that we would like to be involved in. We want to be meaningfully involved in this process. We want to see things move forward, but we want to see them done in the right way, in a way that really respects our rights and our desires from our community members and citizens, as well as from our locals in our regions. They want to see a legacy.

As Elder Morin mentioned in his comments, we want to be involved, not standing on the sidelines anymore. And there was a time where it may have been more difficult to engage properly with the Métis Nation-Saskatchewan and we understand and we know that, but those days are gone. We are here, we are organized and we

are ready and we look forward to moving forward and working with Cameco and all the uranium proponents in Saskatchewan to have a meaningful participation in the industry.

And if we can go to the next slide, that is the end of my presentation. Maarsii. Thank you. I really want to thank The Canadian Nuclear Safety Commission for allowing us to intervene on the Cigar Lake renewal relicensing hearing. Thank you.

**THE PRESIDENT:** Thank you, Elder Morin, for the prayer and your introductory remarks and Mr. Calette for your presentation.

We will open the floor for questions and we will start with Dr. McKinnon, please.

**MEMBER MCKINNON:** Yes. Thank you very much for your presentation. I would like to take up some of your concerns with both CNSC staff and Cameco. It seemed that many of the concerns that you mentioned were related to the lack of representation and inclusion in various plans and initiatives and therefore the completeness of the engagement and consultation was questioned.

So my first question to CNSC staff would be, where there are many communities involved with different interests, how is the completeness of the engagement and the consultation of both the licensee and

CNSC evaluated?

**MS. MURTHY:** Kavita Murthy, for the record. Good morning.

I would like to ask Mr. Adam Levine to explain how their extent of consultation is determined.

Please go ahead, Adam.

**MR. LEVINE:** Thank you. Good morning. My name is Adam Levine, I am the Team Lead for Indigenous Relations and Participant Funding, for the record.

So for every licence application that comes to the CNSC we do an analysis to determine what the licensee or proponent is asking for and the location of that facility or activity and then we will get who are the Indigenous groups and communities that could be either impacted or have interest in that particular licence application.

So for Cigar Lake and the renewal we looked at what Cameco is requesting, which is a renewal of their current operating licence and continuing what they have been doing for the last number of years since the last renewal, and then we looked at who are the Indigenous groups that have interest in this area and the Métis Nation-Saskatchewan is absolutely one of them. As Mr. Calette mentioned, it is in Métis Nation Northern Region 1 and we also know that the Pinehouse Métis

community also has an interest in the Cigar Lake facility and other mining activity as they have a Collaboration Agreement with Cameco and Orano.

And so what we do is we always reach out to all of the Indigenous groups who have interest. Either they have expressed interest in the past by coming to Commission proceedings or understanding of their Indigenous or treaty rights or traditional territory. And then I inform them about the process and begin a dialogue.

We did that last fall and began that dialogue with the MN-S and we also wanted to make sure that they had the ability to apply for participant funding, which they did, to review all the documentation. And so what we are looking for is to see what concerns each group has specific to the licence application, how we can work to address them, and also keep an eye on what the proponent licensee is doing as well.

And I just want to clarify one point that was raised in Mark's presentation, is that we did not formally delegate any procedural aspects of consultation or engagement to Cameco. They were conducting their own engagement process with regards to the renewal in their operations and we did our own as well.

We are looking at all the opportunities available for the communities to have the information

before them, express concerns, have them addressed. And also, the Commission hearing is part of that consultation and engagement process as well, to be able to speak directly before the Commission and have their issues and concerns heard.

So happy to provide more information if needed. Thank you.

**MEMBER MCKINNON:** Thank you.

I would like to ask my next question to Cameco.

We have heard in the proceeding so far that Cameco clearly has an extensive engagement program, but how does the company ensure that all groups have adequate representation in the process?

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

Thanks for your question and also thank you, Elder Morin, for the opening prayer.

We would like to -- I would like to ask Kristin Cuddington to talk a little bit about the engagement framework that we have developed.

I think one of the pieces that is core to this discussion is recognizing this is a relicensing proceeding and I talked yesterday about the four separate environmental assessments that had been conducted in

relation to the Cigar Lake Mine, leave alone the federal CNSC licences in that regard, but we haven't asked for approval of any new licensed activities or changes to the existing licensed activities. So looking at the jurisprudence in that regard, there are no impacts to -- new impacts or changes to impacts to Aboriginal or treaty rights that require deeper or even a moderate level of consultation.

So that helps frame our efforts in relation to consultation from a very legalistic perspective, but I will leave Kristin to talk about the framework that we look at as far as building out our engagement efforts for relicensing such as with Cigar Lake.  
--- Pause

**MR. MOONEY:** I'm sorry, Kristin is having some trouble with her audio here. Maybe I will do a little free jazz while we try and get her set up.

In any event, what we do is try to work through our public information program that has a primary audience and a secondary audience.

In our primary audience our focus is definitely on the rights-bearing Indigenous communities in proximity to our operation and then we step it out from there with engagement on a broader level from that. So I think that has been sort of a part of how we look at it.

But we do engage locally with our collaboration agreement communities and the Métis local Presidents as part of our outreach.

We do recognize that MN-S has entered into the agreement that Mr. Calette referenced and we do include MN-S as part of our secondary target audience for the Cigar Lake Operation and work through it that way.

Still not able to get Kristin on the microphone, so I will continue. Are you in? No. Okay, I will keep going.

Just as far as our engagement efforts specific to the MN-S -- I'm sorry about this, we are having audio difficulty and we are doing our best.

So in relation to that, we sent a letter to the MN-S in March 2020. We provided information on our engagement process and our MN-S local president contacts. We made efforts to follow up with MN-S after that.

When we had heard nothing in that regard, we reached out when we heard the MN-S had received participant funding to intervene in the Cigar Lake renewal application and extended an invitation to participate in a virtual meeting in February 2021 with the COVID health restrictions. So here we are in this hearing doing that. But we hosted a virtual community meeting in an effort to continue to provide information on the operation and

opportunities to raise questions and concerns.

And the MN-S at that time expressed interest in meeting, but the timing being what it was, it was going to be after the intervention was submitted.

We have reviewed the submission from MN-S and plan to schedule a meeting after the hearing and following the MN-S election at the end of the month.

**MEMBER MCKINNON:** Okay, thank you very much.

**THE PRESIDENT:** So let me just ask a couple additional questions to that.

You're going to have further -- so this is for Cameco -- you're going to have further discussions with MN-S. And are those discussions going to look at the recommendations that MN-S has posed?

Totally understand what the legal requirements are around duty to consult. Cameco, of course, goes way beyond what the legal requirements are.

I just wondered if you could comment on the recommendations that have been made.

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

The scope of that discussion will be informed by the intervention that was put forward. I think that when we look at the work that we do in this regard,



our focus is on those First Nation communities and the municipal communities in proximity to our operations. But it's by no means exclusive in that regard.

I think that when we look at the various recommendations, there are some challenges associated with them. And I think that you had said yesterday, President Velshi, that you know there's a journey. Mr. Calette acknowledged that there has been some, you know, peaks and valleys in relation to the MN-S and our ability to engage. I take him, you know, at his word in relation to the organized -- and those days are over.

So in that space, I think that, you know, we would welcome further discussion. I had flagged this actually in response to a question from Dr. Berube in the regulatory oversight report and some of the challenges that we face in relation to -- in this regard is we are one company, one organization in the North. Kristin touched on it yesterday. You know, it's an area roughly the size of Germany with less than 40,000 people, so a widely dispersed population and working through.

That being that what it is, we've had a significant downturn in the uranium space since 2011, but we have completed collaboration agreements with First Nations and some of our neighbouring communities. Mr. Calette touched on one that we have with the Kineepik Métis

Local that filed a supportive intervention. Unfortunately, not here to -- their focus is on the Key Lake and McArthur facilities.

But in any event, I'm rambling a bit, but I just wanted to say yes, we are prepared to meet with Mr. Calette and talk about the intervention and the recommendations and to move forward in our relationship with the MN-S and appreciate, you know, the work that's done with the Métis locals that have been more active over the years in making sure that we understand their concerns and address them as we work with both Métis and First Nation communities.

I understand Kristin may be back online here, but maybe not. So I'll continue to take care of your questions as best I can, but thank you for that.

**THE PRESIDENT:** Thank you.

Dr. Berube?

**MEMBER BERUBE:** Yes, good morning. Well, thank you for your presentation. I appreciated the prayers and viewpoints expressed in your submissions, both your written and your oral submission.

Just a personal note again, being Métis myself, I completely understand your position and the impacts they have had to your people. Also I completely understand where you're coming from with your concerns.

That being said, let me ask you about your organization a bit more. One of the issues with Métis organizations, as you and I are both aware, I guess all Métis are aware, is that they're not really geographically based as First Nations are historically. Matter of fact, they're kind of self-defining in some sense.

So let me ask you, MN-S, how do you basically define your region of influence, your impact? With some Métis Nations, they're very local; with some, they're regional; with some, they see themselves as provincial organizations; some national; some international. So how do you actually define yourselves in terms of the territory that you think you have a stake in?

**MR. CALETTE:** Mark Calette, for the record.

Thank you for that question. As you're aware, we're set up with our Métis Nation 12 regions. Within those 12 regions, we have various locals. We also have an elected executive. We have also set up a strong administrative side of employees that help support our locals and regions across the province in everything from health to duty to consult, which is part of what we do, harvesting, land claims -- you name it, we've got departments set up to look after those things.

In answer to your direct question, you'll

notice one of my recommendations was number two, traditional land use study. These are the important tools that we use to help define our Métis footprint. And this is super helpful in being able to answer your question. And so we haven't had the opportunity to do these as much as we should have had. The proponents that are coming into our territory should be providing us with the capacity so that we can accurately answer that question.

We are actively doing traditional land use studies in certain parts of the province even without proponent help, because we know that that's vitally important. In some of our northern places where some of these mines are, the Métis represent over 50 per cent of the population. So we have a significant footprint. But we need to map that all out. We need to pinpoint it through not just the traditional land use gathering, hunting patterns and important places, but we want to outline exactly how our footprint is shown and how we can really demonstrate those impacts.

So there's firstly our political set up, what I mentioned. There's our administrative. And then there's the process of doing our traditional land use and mapping that really will help us to show concretely our footprint.

**MEMBER BERUBE:** And I have another

question for CNSC if I may, actually, with regard to this actual application for renewal. What actions have you take directly to talk to MN-S at what levels of the organization?

**MS. MURTHY:** Keep going, Adam Levine, please.

**MR. LEVINE:** Thank you. Adam Levine, for the record.

So specifically with the Métis Nation-Saskatchewan, as Mark laid out, with their governance structure, we want to respect their process for consultation engagement throughout their homeland and governance. So what we do is we send a letter to the president, Mr. President McCallum and to Mark and his team, and then ask them about which locals, which regions this particular facility should be engaged as part of that process, to make sure it's a coordinated approach. So that's what we did for the Cigar Lake renewal.

And then we offered a number of follow-up conversations where we talked with Mark and his team and also their different consultants and support staff about PFP specifically. We answered a number of questions during a meeting regards to that, and then also had a follow-up meeting to talk more about the process and also offered to have additional meetings to discuss any specific concerns

they had.

In terms of the actual concerns from MN-S and the locals, we didn't hear anything specific until the intervention. And I think part of that is due to that they did not maybe fully appreciate all the information on the record of what this application was about and be able to formulate their specific position until they reviewed the Commission Member Documents, and then actually submitted their intervention. And that happened obviously just recently.

So we do see the concerns clearly articulated now in what Mark presented in their intervention. We're fully committed as always to following up with them and finding a path forward, because we work with MN-S across northern Saskatchewan throughout their areas and regions, because there's many facilities we regulate throughout their territory and new projects as well. So we're fully committed to the relationship and we definitely want to talk to Mark specifically about how we can more formalize that and find a path forward on a number of the items they've listed. Thank you.

**THE PRESIDENT:** Thank you. Dr. McKinnon, any additional questions?

**MEMBER MCKINNON:** No further questions, thank you.

**THE PRESIDENT:** Okay, Mr. Calette?

**MR. CALETTE:** Yes, one more comment. It's really important, and CNSC has been doing a good job in trying to keep us informed on, you know, the activities going on with proponents in the north. But I really want to make this point, because I think there's something I missed in answering that last question, and that is is that we need to really know what's happening.

Because when our locals and our regions come to us and say, Mark, we're getting these letters; like what do they even mean? A lot of them are written in language that, you know, obviously things they don't understand. They don't necessarily understand the process. And for a lot of cases, they have like zero capacity. Like they're doing this off their kitchen table. They don't even have an office.

So it's so important that we be kept involved, because then we can go and we can support those locals and the region on how to work with proponents and with the CNSC. And that's something that's ultra important, because if we don't know and if our regions are so burdened down that they don't have the capacity to let us know, then that whole system is kind of built to fail.

So it's so important that we're kept in the loop and we work along with our locals and regions, and

then we can give them the necessary support. And I think, you know, over the years that hasn't been as good as it needs to be. I've been, you know, in this industry, you know, close to 12 years now. And there's massive room for improvement.

But I just wanted to make that point because that's something that we find very difficult in trying to keep up with things and helping our locals and regions understand and participate meaningfully. Thank you.

**THE PRESIDENT:** Thank you for that. And I'd like to thank you for your intervention. You've clearly heard from both Cameco and CNSC staff a commitment to continue the conversation and the engagement.

Any final words before we move to our next intervention, Mr. Calette?

**MR. CALETTE:** For the record, Mark Calette.

I don't have any other comments other than I really appreciate the time and the questions and I appreciate the process.

**THE PRESIDENT:** Thank you.

Okay, the next presentation today is by the Canadian Nuclear Workers' Council as outlined in CMDs 21-H2.23 and 2.23A. I understand that Mr. Bob Walker will



present this submission.

Mr. Walker, over to you.

**CMD 21-H2.23/21-H2.23A**

**Oral presentation from the  
Canadian Nuclear Workers' Council**

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

For the record, I am Bob Walker. I'm the president of the -- sorry, the national director of the Canadian Nuclear Workers' Council.

I'm going to try to go through the presentation fairly quickly this morning, because you have heard a lot of the information that's in this yesterday, and you have my written submission as well.

Sorry, my screen's not advancing. It's working now, thank you.

The Canadian Nuclear Workers' Council represents unions that represent workers across Canada's nuclear industry. For this hearing, the relevant ones are the uranium mines and mills in Saskatchewan.

The Nuclear Workers' Council was formed in 1993, and the purpose for our existence is to ensure that perspectives of Canada's nuclear workers are heard,

strengthen our role of our unions as partners in the nuclear industry, and enhance public knowledge about the many benefits of the nuclear industry.

And most importantly, we want to make sure dialogue is based on facts. To do this, we interact with the industry, with Nuclear Safety Commission. We have a regular newsletter. We maintain a website. I've said on here that we have a social media presence, but I think I might be exaggerating a little bit on that one, because I am the social media presence, and I'm not very good at it.

We do hold an annual conference, and this is important, because we have had our conference in Saskatchewan a couple -- a few times now, and we have had a couple of opportunities to tour mines and mills in northern Saskatchewan. And very important to note that the uranium -- the unions in the uranium mines and mills in Saskatchewan have been part of our council since the very beginning.

For all of our members, workplace health and safety is the most important thing. I can't overstate that enough. There is nothing more important for us than health and safety. And workplace health and safety is so linked with environmental safety and public safety that it's hard to talk about one without the other. When our workplaces are safe, the community is safer; and when the

environment is safe, our workplaces are safer. So they really are linked. And our members also live in the communities. They work in the communities. Their families are in the communities. So really, nothing is more important for us.

For the uranium mines and mills in northern Saskatchewan, they're operated by either Cameco Corporation or Orano. And in the regulatory oversight report for 2019, CNSC staff concluded that all uranium mines and mills were operated safely in 2019 and all safety and control areas received a rating of satisfactory.

For Orano, they operate a uranium mine at McClean Lake, and their operations members there are represented by Unifor Local 48-S. Their president is Jermaine Henry. They are a member of the Nuclear Workers Council.

For Cameco Corporation, they operate a uranium mine at their Cigar Lake operation, a mine at McArthur River, a mine and mill at Rabbit Lake, and a mill at Key Lake. For McArthur River, Rabbit Lake, and Key Lake, they've been under care and maintenance because of the uranium market. And for Cigar Lake, they've been under temporary production suspensions on and off because of -- related to COVID.

For employees at Cameco at McArthur River

and Key Lake as well as employees of Athabasca Catering Limited Partnership at those sites as well as Cigar Lake, they are members of the United Steelworkers Local 8914; their president is Denis O'Hara; and they are members of the Canadian Nuclear Workers' Council.

I do want to point out that Cameco employees at Cigar Lake are not unionized.

So Cameco Cigar Lake operation is a joint venture operated by Cameco. They are located in northern Saskatchewan's Athabasca Basin. And they have requested -- they've applied for a 10-year licence renewal.

To prepare this intervention, our submission, it was a little bit complicated. As everyone's mentioned already, because of COVID, we've -- it's difficult to reach out to people, and that was true for us as well. Normally, I would have gone to Saskatchewan and talked to our members out there. I normally would have gone to Saskatchewan and participated in a CNSC hearing at Saskatchewan, so obviously this is all changed.

But we did manage to do some outreach. We viewed the licence application. We viewed staff's assessment of the application. We viewed Cameco's submission. We reviewed last year's ROR and our submission -- we did make a submission on that ROR, so I refreshed memory on that. We did review a Cameco virtual

community meeting, and we also took a look at a public summary of Cameco's safety and health management program and radiation protection program. We reached out to Local 8914 of the Steelworkers and Local 48-S of Unifor. We tried to contact an employee rep with the Cigar Lake occupational health committee. In my written submission, I said I was not able to do that, but I did talk to somebody since then. I'll talk to that in a moment.

So it was difficult to reach people, but we did get feedback.

I had a Zoom meeting with the president of the Steelworkers local and Steelworkers District 3 staff in Saskatoon. I did have email exchange with Ms. Susan Daigneault with Steelworkers Local 8914. She's an executive member of the local and she's a co-chair at McArthur River. Also had a call with the president of Unifor Local 48-S. And as I said, after the written submission went in, I did get contacted by Brad Harris. He is the employee co-chair of the occupational health committee at Cigar Lake.

So what we heard from those people I talked to, they all felt that there were adequate provisions for the safety of people and the environment. They're very confident that Cameco operates their facilities responsibly and they're very diligent with their

respect in protecting health, safety, and the environment. There were no concerns raised about the operations at Cigar Lake.

Mining is important to the economy in northern Saskatchewan. It provides quality employment. It was noted that with facilities in care and maintenance that people did have to seek employment further away from home, which causes hardship.

There is a lot of movement between -- this is important -- because the Cameco employees at Cigar Lake are not members of one of our unions in our council, it's difficult to talk to them directly. But there is a lot of movement of people between the different mines. So the people that I talked to were aware of Cameco's operations at other facilities and people in those other facilities that are unionized had worked at Cigar Lake and vice versa. The representatives with the Steelworkers are aware of Cameco's policies, their practices, and they're very confident that Cameco takes the protection of health, safety, and the environment very seriously.

As I said, I talked to Susan. She's a long-term Cameco employee. She's on the Steelworkers local executive, and she is the occupational health committee co-chair at McArthur River. Susan has presented to the Commission at previous licence hearings for both McArthur

River and Key Lake. And what she told me was when she was directly asked a question at the hearing, she was able to answer with a lot of confidence that any issues related to safety, health, and environment are taken very seriously by both Cameco management and workers, and she believes that continues to be true today.

A summary of the comments received from Susan are in our submission, so I'll try not to go over them. I took what she told me, I summarized that for our submission, then I took what I -- my summary and summarized it again for the slide. But I think it's more important that you look at the submissions to see the summary of what Susan said.

She did talk about the value of economic benefit of the -- of the mines and mills in Saskatchewan. She did talk about the community outreach. And Susan worked for Cameco for 20 plus years, and she said in her experience health, safety and environment have always been priorities. Concerns are handled either directly with supervision or the occupational health committee and management.

She said they have very -- many different avenues to report and discuss safety concerns. Management has always been very open and responsive when concerns are brought forward, and open to suggestions.

We -- so this is -- again, Susan said this. We recently had a virtual Teams meeting with the occupational health committees from Key Lake and McCarthy River. She said that meeting proved to be very beneficial.

That meeting was set up because of COVID concerns about -- from -- about people bringing COVID to the communities or back from the communities, so they had that virtual meeting because of COVID. But it turned out to be very successful.

She said we all have the same goal about protecting workers' health and safety as well as the environment. And further to that, she said COVID has demonstrated just how far Cameco will go to ensure everyone's safety. And she believes that all sites are of the same.

Steelworkers also submitted -- when I forwarded our submission to the Steel Workers, they forwarded me a copy of theirs, so they did make their own submission, a written submission. Steelworkers does take the safety of their members and the environment very seriously, and workers are encouraged to report any safety issues.

The Steelworkers also have safety professionals on staff which can help the locals as required, and the Steelworkers are not aware of any



outstanding health and safety issues with our members at ACLP - Cigar Lake.

As I said before, Cameco employees at Cigar Lake are not members of a union, but the Steelworkers' experience with Cameco has shown Cameco to be very responsible when it comes to health and safety of people and protection of the environment.

We did review CNSC Staff's assessment. They confirmed radiation protection programs, environmental protection programs and conventional health and safety programs are effective.

We support the CNSC Staff assessment and their conclusion that Cameco is qualified to carry out the activities authorized by licence and will continue to make adequate provisions for protection of the environment and health and safety of people. We also support their recommendation that Cigar Lake be given a 10-year licence renewal.

Concluding remarks. I just -- I say this all the time because I think it's very important for everybody to hear.

Canada's nuclear industry is very important for our economy. It provides clean, reliable baseload generation in Ontario and New Brunswick without greenhouse gas emissions. It produces nuclear isotopes for

our health care, supports high quality local employment for tens of thousands of Canadians. This is true in northern Saskatchewan, and this is true in Ontario and true in New Brunswick.

There is a potential for development, deployment of SMRs in Saskatchewan, and I have reached out to the Saskatchewan Federation of Labour to talk about that further. And I've also talked to Unifor and the Steelworkers about that, as well as the IBEW in Saskatchewan.

The nuclear workplace is great working conditions. Health and safety standards really are second to none, and you really have to see these workplaces to understand what that means.

They really -- there is no compare. I have worked in different industries, and there is no compare.

That's the same whether it's nuclear power plant or uranium mine.

This all starts with the uranium that's mined in Saskatchewan and Cigar Lake -- Cameco's Cigar Lake is an important part of the industry.

In conclusion, Cameco's met all the requirements during the current licence period. We have no reason to believe that will not continue.

CNSC Staff will continue to monitor Cameco's compliance, and the annual Regulatory Oversight Reports will provide regular reporting to the Commission and to the public and give the public an opportunity to make their submissions.

The Nuclear Workers Council supports Cameco's application to renew their licence for Cigar Lake for a period of 10 years. And before I close, I do want to say we encourage Cameco to explore this idea of using virtual Team meetings to allow the occupational health committees between different sites to talk to one another so they can share their experiences.

It's worked out well, so we should build on that and make it work better.

And also, this isn't something I talked to the Steelworkers about, so I'm a little bit reluctant to say it here, but they should also consider inviting an occupational health committee from Orano so that they are comparing notes as well because they do work together.

The ore from Cameco does go to Orano. They have very similar safety issues, so they should talk to one another.

And that's the end of my submission. I would like to thank the Commission very much.

**THE PRESIDENT:** Okay. Thank you, Mr.

Walker, for your intervention, and for the presentation.

Let's start with Dr. McKinnon for questions, please.

**MEMBER MCKINNON:** Yes, thanks.

First of all, I'd like to thank you for your detailed review, and especially the collection of the feedback from various people. And I appreciate how difficult that must have been under the current circumstances.

In your presentation, you mentioned that there is movement of people between companies and between sites. And I was wondering if you have any feedback from members who have moved between sites, and especially those that have worked at Cigar Lake mine and others, how they would generally characterize the safety culture at the mine in comparison with other companies that you've worked at?

**MR. WALKER:** Thank you for the question.

I can't give you a lot of detail of how many people or who the people are, but the feedback I got was that people -- like Susan told me very clearly that people move between the sites. And although Steelworkers don't represent the people at Cigar Lake, people at other mines -- people at Cigar Lake have come from the other mine sites, and vice versa.

In one of the interventions yesterday, I

believe the young woman who was the first operator at Cigar Lake, I believe she said she had worked at another site. I know there's a couple of interventions some of you said that they had changes sites because of coverage for maternity leave for somebody, and so I know just from yesterday I heard some movement.

The main thing I've heard -- and like I said, this is a little bit difficult because I'm a very firm supporter of unionized workplaces. I'm a very -- a very firm advocate for a unionized workplace is a safer workplace. However, the Steelworkers told me that they feel very confident that -- with Cameco that the working conditions and the policies and procedures are very comparable between their different sites.

So that's all I can give you, is what I heard from the Steelworkers staff and the Steelworkers -- and Unifor elected people.

**MEMBER MCKINNON:** Okay, thank you very much. That's helpful.

Thank you.

**THE PRESIDENT:** Dr. Berube.

**MEMBER BERUBE:** Well, thank you for this intervention. It's extremely useful for us to have a third party view of safety as it pertains to sites, especially from people that are working there on a regular basis.

It's extremely valuable to the Commission to have this.

I know this is a lot of work pulling this together and it's really appreciated.

The question I have is for Cameco, and I'm looking at your full-time employees' lost time injuries rates.

And I note for the last four years, that's 2017 to 2020, that you've had no lost time injuries, which is commendable, to say the least.

Just looking at the TRIF data here and just could you give me some insight into, you know, what you're seeing in terms of TRIF incidents?

I know there's one incident that you've mentioned, a wolf attack, which is extremely unusual, but maybe just give us a little feedback as to what you're actually seeing in some of the more minor injuries.

**MR. MOONEY:** Sure. Thanks for that question, Dr. Berube.

I'm going to ask Lloyd Rowson to give a bit more detail in that regard.

The wolf attack, as you framed it, was a very unusual instance and, in fact, when staff gave their presentation yesterday they talked about that was the sole EIR during the current licence term involving Cigar Lake, so quite a bit of focus there and attention and

investigation under our corrective action process, identified a number of corrective actions that have since been implemented. And we have a wildlife management standard that has been reviewed by third party experts and confirmed to be one of the leading practices in that area now.

So on that specific incident, I think that we really changed our approach in that regard and that investigation helped us tremendously.

But on your TRIR question, Lloyd can give you a bit more of a flavour there. But it is, as you say, really commendable, four years without a lost time incident.

As you, Dr. McKinnon, President Velshi and Mr. Walker are aware, that's no mean feat, particularly given, for Cigar Lake over 2020, Cigar Lake was moving into production and we -- as we outlined in our presentation, suspended production for a number of months and then brought back on.

So those time periods, you're dealing with a lot of non-routine activities, so you know, that performance in 2020 is particularly noteworthy.

So with that, I'll just ask Lloyd to talk about TRIR.

**MR. ROWSON:** Thank you very much, Liam.

So the question does relate to what are we seeing for the lower level or recordable injuries which contribute to that TRIF value. I can say that, you know, we do view TRIR. It's an interesting metric that we do have relatively low numbers of incidents, so we end up in this low -- or low level statistics. You know, one or two incidents can dramatically change the value.

But overall, we view it as a transition that did occur in 2017. We've sustained them at what we view are very low levels.

The injuries themselves that would be contributing to recordable things, for example, one of the big initiatives right now is to look at ergonomics. So these -- that seems to be a predominant issue with us that we're currently focusing on.

There are things like back strains, twisted ankles and repetitive strain injuries. Those types of things are really similar to the top in terms of our priority focus, and we are always analyzing what are the number one contributors to those recordable factors and directing our efforts to address those.

**MR. MOONEY:** Dr. Berube, maybe I'd just add Andy Thorne, our mining VP, we talked about his experience with our Fuel Services Division, but we had -- we were one of the first to really focus on the total



recordable incident rate. That's what our U.S. operations are required to focus on.

There, it's a -- I would say it's part of their regulatory requirements, so *OSHA* is very strictly interpreted. And we are, I'd say, similar in our approach, that we are very strict in our application of those *OSHA* reporting criteria.

So that -- for better or worse in that regard, that would be -- I think it's for better because, in that regard, it gives us insight into those events and allows us to follow up on them. And I think that's a trend that the mining industry has been very good on.

And we talked about that safety summit yesterday where, you know, sharing events, the ones with significantly more potential and interest, those are what features there, but the sharing of use of experience is something that the mining industry is very proud of, and particularly in Saskatchewan through the leadership of the SMA.

**THE PRESIDENT:** Thank you.

And maybe I'll take this opportunity to further explore the whole safety control area. And Staff, as Mr. Walker's presentation again underscored, has given kind of a thumbs up to Cameco for your performance and your programs in this area and the only kind of improvement

initiative that has been identified is the implementation of RegDoc 2.1.2 on safety culture.

So maybe if I can ask Cameco to comment around your preparedness for implementing this new RegDoc and what do you see as benefits of implementing this RegDoc.

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

We have been conducting safety culture assessments at our facilities on a regular basis for more than a decade. We find them very helpful as providing some insight, and they're prospective based, so they do provide some valuable insight, much like Mr. Walker's presentation today, right, talking to people and understanding what's happening.

We just finished our -- a safety culture assessment, the interviews, for Cigar Lake, so COVID being what it was, we had to do those virtually. And John Takla, our long-time lead of our safety systems group and proponent of safety culture and safety culture assessments, he and I confer regularly in relation to that.

And a very positive experience despite the challenges of having to do the interviews virtually, much like the current environment, you know, microphones don't advance and that sort of thing.

But in any event, I'd say that with respect to that RegDoc, the addition of the security culture piece is something that's new and something that we are having to do a little bit more work around.

We had commented in the development of that RegDoc in relation to some competing forces at play there between security and confidentiality of security matters, security culture, butting up against safety culture and trying to -- where you're trying to encourage reporting and that sort of thing.

So the reconciliation of that was still getting our head around, so the virtual safety culture assessment that John Takla spearheaded over the last -- the late 2020-early 2021 period gave us our first taste of that. And we'll see that report.

What we have internally is a process where the safety culture report comes out and, again, there's recommendations that flow from that. And then John meets with Lloyd in this circumstance, GM, and he's talking about, you know, what was seen, what was heard. And then the operation develops an action plan. And from that action plan, there's a -- we have our operation senior management team, so our -- headed by our Chief Operating Officer, Brian Riley.

And Brian gets everyone together to talk

about the results of the safety culture assessment, but also the action plan that's developed. And then that action plan is tracked in our Cameco incident reporting system, so we have, you know, corrective actions and follow-up and verification and validation of those.

So you know, again, it is -- it is a good process. It's one that we derive a lot of value from. And I think that just that conversation around safety at many different levels of the organization really helps things.

So I think that, you know, overall we're in really good shape as it relates to safety culture. You know, again appreciate the perspective that Mr. Walker had in his rundown, his work that he did.

Susan had presented to the Commission as part of our relicensing facilities in 2013, and very familiar with our operation.

And he's right, Taryn Roski, who was in front of you yesterday, she moved from Rabbit Lake to Key Lake to Cigar Lake. And I took from her presentation yesterday that she had a very positive experience in all three of our operating sites, and I think that a big part of that positive experience is the safety culture that we take a lot of pride in.

**THE PRESIDENT:** Thank you. Thanks very much for that.

And can you comment on Mr. Walker's recommendation that you get the occupational health and safety committees together, you know, in some regularity and share learnings?

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

That -- in relation to the Cameco operations, that's something that we could -- we could work towards, for sure.

I think that, you know, on the COVID front, you know, brings a bit of a tear to my eye in some respects, but we have had a working group for the entirety of the pandemic. We talked about, you know, triggering our corporate emergency response plan and our -- and our local business continuity plans, but Lloyd and his team have been fantastic about responding to -- you know, as we learn more about the virus and, you know, now the variants of concern and the responses that are required, you know, the confidence that our workforce has in Cameco to do the right thing.

The question was asked of Mr. Sigurdson yesterday about other mining operations and, you know, when you look at Cameco and Orano, we have fly-in -- that's how our workforce gets to our sites. And then we have camps. And so the analogy that I've used is that, you know, we

have an airline and then we have a hotel or a resort, if you will, before people have to start to work.

So a very challenging environment that we work our way through, and Lloyd and his team have been fantastic. You know, even after Taryn's presentation yesterday, I was getting, you know, the beeps from them that, yeah, they are in the process of identifying a place and putting in a bathroom. That feedback, right.

So I think that on the -- what we've learned through the pandemic, if there's something that we can say, when digital's working, it's great. Gives us an additional tool to have those -- the OHC from key, talk to McArthur, talk to Cigar, talk to Rabbit.

Three of the four operations are in care and maintenance right now. We'd like to, of course, see that change. So that affects the ability to do that.

But for sure, COVID bringing them together and highlighting the value of that, we'll look for opportunities going forward.

The last piece I would add -- I've been going on for a bit here -- that we do have really good discussions at staff level working, you know, with Lloyd and his counterpart, Dale Huffman, talk on a regular basis. You know, we have a -- we have a really strong working relationship.

Maybe not a marital one the way that Mr. Laniece described it yesterday, but one that we, nevertheless, really take a lot of pride in that there's a good deal of communication and trying to deal with -- we work in the same communities. We draw from the same communities. We are headquartered in the same location, so lots of good dialogue there.

So I think that's an opportunity to strengthen between our own OHCs, and we'll definitely look to action that.

**THE PRESIDENT:** Thank you.

And one last question since you're talking about COVID and with the resumption of activities at Cigar Lake this week.

Have you noted a reluctance of your employees in coming back to the workplace?

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

You know, one of the individuals that I've worked very, very closely with throughout this pandemic is our head of our nursing services, Jodie, so the health care centres that we have at all our facilities. And you know, she has been amazing about, you know, the questions that we get in dealing with different issues.

And you know, we're recognized as a

leading employer because we look for, you know, a means to accommodate concerns and work through things.

Lloyd and his team really sat down and looked at their workforce and tried to limit the number of people who have to be on site, so folks who historically were on site two weeks on, two weeks off, maybe they're there every second rotation and they're able to work from home.

So that was, you know, a real effort that is going to continue.

And so I think that, you know, overall, people were very happy about the announcement and wanted to get back to work.

And on the individual cases where there was concern, people like Jodie and Kevin Dean, the HR manager at Cigar, they sit down and talk to those people and make sure they understand the concerns and we see what we can do.

And again, that's -- you know, I think when we talk about people who work for Cameco being very proud of the place that we work, that's the sort of philosophy we have.

**THE PRESIDENT:** Thank you. Thanks very much for that.

Mr. Walker, I'd like to echo my



colleagues' comments. Thank you very much for your submission. Very helpful that you've canvassed the employees and so we can hear maybe not firsthand, but second-hand, their sentiments around the workplace and concerns.

So I'll turn it over to you for any closing comments before we move on, please.

**MR. WALKER:** Thank you.

Bob Walker, for the record.

A couple of things in closing.

One, I think I skipped over this a little bit too much, but Mr. Harris, Brad Harris, did reach out to me, as I mentioned. He is the employee co-chair at Cigar Lake and this discussion about safety culture just reminded me of that conversation with him. I know Susan was very positive, Susan was very proud of working for Cameco, and Mr. Harris, Brad, was also very proud of working for Cameco. I asked him the same questions about training, how he feels about the training they got and he was very happy with that. I asked they feel about radiation exposure and how they feel about the training around that and their protection on that and he was very -- it was all very positive, so I just wanted to mention that.

The other one, really, really briefly -- I know I am out of time -- but I retired from Ontario Power

Generation. I was a nuclear operator at the Darlington facility. I retired from there and took over the role with the Nuclear Workers' Council, but I always forget about my first working job, which was In Uranium City, Saskatchewan. My father worked for Eldorado Nuclear. I worked in Uranium City, Saskatchewan for four years and when the mine shut down there I was reeducated. I went to college in La Ronge and got trained to be a lab tech and my next job was the precursor to Cameco, which was Key Lake Mining Corporation. So I do know how important these jobs are. I know how important it is when you lose those jobs.

And the last thing I want to say, we do support the application and we support staff's recommendation and we support a 10-year licence renewal.

I have said this before and I will say it again and again and again, thank you very much to the CNSC, both the Commission and staff. The work that you do makes our workplaces and our communities safer and thank you for that.

**THE PRESIDENT:** Thank you very much.

Our next presentation is by the Canadian Nuclear Association, as outlined in CMD 21-H2.27.

Mr. John Gorman is here to present that submission.

Mr. Gorman, the floor is yours.

**CMD 21-H2.27**

**Oral presentation by the Canadian Nuclear Association**

**MR. GORMAN:** Thank you. Thank you and good afternoon, Madam Chair and Commissioners.

My name is John Gorman. I am the President and CEO of the Canadian Nuclear Association.

I have with me today Steve Coupland, who is our Director of Regulatory and Environmental Affairs at the CNA.

I am really pleased to have the opportunity to speak to the Commission in support of Cameco's relicensing application.

This is my first time before the Commission, but I am of course following the domestic regulatory environment very closely and, if I may say, I have also been having increasing exposure to the regulatory regimes of other nations and have come to view the CNSC as a competitive advantage for our industry at home and abroad.

So may I start by thanking you for your diligence and continued commitment to protecting the health, safety, security and the environment for Canadians.

A little bit about the CNA. I'm sure you

are familiar, but we have about 100 members representing over 70,000 Canadians employed directly or indirectly in exploring and mining uranium, generating electricity, advancing nuclear medicine, and promoting Canada's worldwide leadership in science and innovation.

Our members are committed to safety throughout the entire lifecycle of the nuclear industry and as such we are supportive of Cameco Corporation's request for a 10-year renewal of its uranium mine licence for the Cigar Lake uranium mine.

Now, you have already received written comments from the CNA and its members on March 22nd, but I would like, for the record, to briefly touch on some of the key points in our initial submission and I am going to rely on some written remarks here, but they are brief and I hope they will be to the point.

I would like to begin by highlighting the importance of uranium in the world's fight against climate change. It is increasingly acknowledged -- and I think we are all experiencing this -- that nuclear power must play a greater role in Canada and the world's energy systems if the planet is to prevent catastrophic global warming.

Canada is blessed with some of the world's richest uranium deposits and we have the technical expertise to access those deposits. Cigar Lake is one of

those and it is an essential part of the world's fight against climate change.

I want to be clear. However, I am not suggesting that the increasing global need for uranium in any way trumps the fundamental requirement of safety to workers, the public and the environment.

Cameco is one of the most experienced uranium mining companies in the world and has a proven track record of over 30 years of safe operation in uranium mining and milling in Northern Saskatchewan. Over this time, Cameco has clearly proven itself to be a capable, experienced and qualified operator.

Cameco's number one value is the health and safety of its workers -- so we have heard today -- and the public and the environment, and it employs comprehensive safety and risk management systems to reinforce those values.

Cameco maintains an active Occupational Health Committee consisting of worker and company representatives who review past health and safety incidents, conduct safety inspections, evaluate safety programs and recommend improvements. Worker involvement and consultation is openly sought and encouraged through daily work assignment meetings and regular safety meetings.

One important indicator of the success of

this approach is that Cigar Lake has not recorded a lost-time incident since 2016.

Cameco intends to build on this success by strengthening its safety culture, by focusing on safety and accountability through the continued implementation of the Field Leadership Program, where all employees work to promote the safe and productive work environment.

Cigar Lake also employs a rigorous radiation protection program that is designed in accordance with the ALARA principle. Radiation exposures are mitigated through a combination of engineering and administrative controls such as non-entry mining methods, ventilation, shielding, zone control, permits and the use of personal protection equipment.

The effectiveness of these controls is routinely tracked and confirmed through monitoring and dosimetry. In addition, periodic audits and reviews are conducted to identify improvements.

Like all of CNA's members, Cameco is committed to protecting the environment. Cameco maintains an ISO 14001 certification for the environmental management system, thus ensuring the Cigar Lake Operation systematically monitors and measures operational impacts, reduces and effectively manages waste, identifies and mitigates environmental risks, thus minimizing impacts to

the environment.

Cameco is committed to open communications and public disclosure. It believes that the best way to build and sustain public trust and support is by operating with the highest health, safety and environmental standards, and communicating them to the public in an open and transparent way.

Cameco maintains a detailed engagement process through its Cigar Lake Public Information Program. The primary audience for this program are the First Nations and Métis communities, as well as the municipalities located in the vicinity of the site. The Public Information Program ensures that all local audiences are informed of operations, activities and potential impacts on the health, safety and the environment in a detailed and timely manner.

Cameco has a long and successful history of effectively engaging with First Nations and is widely considered to have a strong Indigenous engagement program. One of the areas of special focus for First Nations is environmental monitoring.

Cameco has been an active participant in the Eastern Athabasca Regional Monitoring Program since its inception in 2011 and the program was complemented in 2018 with the evolution of a Community-Based Environmental

Monitoring Program that encourages community members to become more involved and provide input to steer the direction of the program impacting their particular community.

These community-based monitoring programs work with communities to monitor the safety of traditionally harvested foods by collecting and sampling representative water, fish, berry and mammals in the seven communities that are part of the program. The 2018-2019 results continue to show that traditional country foods are safe for consumption, with profiles similar to natural background.

CNA also notes that some intervenors have recommended a shorter licence period. The CNA believes that the best indicator of future performance is past performance. It is our belief that Cameco's proven track record of safe and environmentally responsible operations combined with its commitment to continuous improvement demonstrates that Cameco is a trustworthy and reliable operator.

A longer-term licence provides regulatory certainty for licensees that enables longer-term planning and investment in facilities that not only improves performance but enhances health, safety and environmental protection.



The CNA would also point to the oversight provided by the CNSC not only through ongoing inspections and audits but also the CNSC's Regulatory Oversight Review process, which allows for the Commission and public to be informed of and discuss licensees' performance in an annual public meeting.

For the above reasons, the CNA is pleased to strongly recommend that the CNSC renew Cameco's Uranium Mine Licence for its Cigar Lake Operation for a 10-year period.

Thank you.

**THE PRESIDENT:** Thank you, Mr. Gorman, for your submission.

We will open the floor up for questions and start with Dr. Berube, please.

**MEMBER BERUBE:** Well, thank you very much for your submission. Again, very thorough and very useful to us in terms of a third-party perspective.

Given the full extent of your membership, which I would think is fairly considered to represent the Canadian nuclear body, how would you rank the facility in terms of its overall safety and environment protection standards?

**MR. GORMAN:** Thank you very much. I'm sorry, John Gorman, for the record.

Thank you very much, Dr. Berube, for the question. I think I will answer that by saying that -- sort of giving you a personal reflection.

I have been part of the nuclear industry here in Canada for about two years now and previous to this was in the electricity and energy sector, but this is my first sort of immersion into the nuclear sector, and of course half of this time has been through this extraordinary pandemic which has, I think, demonstrated that the nuclear industry is inherently capable of operating safely through extreme situations and giving back in ways that really, I think, do the industry and Canada proud in terms of the contributions that it has made in terms of PPE investment and other ways of giving back to the community.

The other thing that I have noticed throughout this pandemic has been the incredibly diligent way that everyone from the mining members through to the large operators and supply chain have instituted safety measures for their employees. I have had the opportunity to speak to, you know, senior executive and managers at all of the member companies throughout this pandemic on a regular basis and in fact Cameco -- one of Cameco's employees shares an office space with us here at the CNA and I will say that my personal observation has been that

Cameco is right up there at the top in terms of the sort of safety measures and considerations that are extended to its employees in the communities that it works with throughout this crisis.

In short answer to your question, Cameco is right there among the top in terms of providing that sort of outreach and safety to its employees.

**THE PRESIDENT:** Okay, thank you.

Dr. McKinnon...?

**MEMBER MCKINNON:** Thank you for your intervention.

I would like to bring up a point which was raised in your letter, and the question is to Cameco.

It was mentioned in the intervention letter that multiple forms of risk assessment have been conducted at Cigar Lake. Could you provide a brief overview of that process and how the results of the risk assessment would be used for example in developing safety procedures and giving feedback into your training programs?

**MR. MOONEY:** Thanks for that question.

Yes, I would say that in relation to risk assessments we do a variety of different forms of them across Cigar Lake and our operations and we look at opportunities to refine and improve them.

One that stands out for us is our job

hazard analysis, which was really focused on those non-routine activities and in that regard it gives a little bit of a pause and the opportunity to look at the planned activity and talk about potential hazards and identify the controls that are in place, and that has proven to be really quite effective.

When you talk about broader space, we also look at it from the perspective of on the mine for example water inflow assessments is something that we are very focused on at Cigar Lake given the mining context there, and we have dewatering assessments that are conducted by qualified personnel and then from those they look -- those assessments look at dewatering risks for both routine and non-routine and then they look at how the risks are being managed and whether they are being managed appropriately.

When we also look at assessments, there are geotechnical risk assessments that are conducted on a regular basis, and again, part of having a strong quality management program is making sure that those assessments are conducted on a regular basis, but also that any actions are tracked to completion. I think that as your management system matures it is one of those things that you -- are we doing the assessments, are the corrective actions being developed, are they being implemented? And one of the last steps is are they being validated and I think that has been

where there has been a good deal of effort, controls that are identified and making sure that those controls are actually being undertaken on the agreed-upon frequency. So I think that is a growth area for us and, as I said, as our management system has matured we have been able to take advantage of that opportunity. And then the fit with that and our broader enterprise risk management system, so our site-based risks and then our business unit risks and then our corporate risks.

So it is a fairly detailed process and, you know, we spent a lot of time yesterday in the conversation with English River talking about ecological risk assessments and that is another sort of finite area that we work in, but it itself is very specialized but touches a lot of different areas of the operation.

So, you know, a few years ago I was privileged to be on a tour with some members of the Commission and I remember being at the Cigar Lake water treatment plant and we were talking about in that circumstance, you know, like the different parameters that were in play and the operator's focus in relation to that, so, you know, how that ecological risk assessment plays itself out.

Another example, our operation senior management team was touring Cigar Lake with one of the new

freeze plants and talking about the risks and how they were assessed and how different controls had been put in place and how we had evolved as the different freeze technology had been put over.

So overall there is a fair bit that we do around risk assessments and, you know, sometimes we talk the language of risk without necessarily thinking of it being something really specialized unto itself. You know, one of the popular sayings in the risk space is that we are all risk managers and to some degree I really feel that in our working environment, that people really appreciate, you know, that there is a framework that is working and then, you know, the activities are tied to that framework.

**MEMBER MCKINNON:** Thank you. I am very glad to hear it is really an ongoing dynamic process that you have, because working in a natural environment, you know, there can always be surprises.

Through your various monitoring programs, have you had any surprises or events that perhaps were not initially foreseen in the planning? I mean it is not unusual that would occur, working in an orebody which is a complicated geological environment.

**MR. MOONEY:** Yes. You know, that is probably a good place for me to ask Lloyd Rowson to talk a bit about what we were trying to do in relation to our

production tunnels and the shift that was made there. In our presentation we talked about the new Austrian tunnelling method and the move that we made there as a result of what we were seeing in relation to those production tunnels, but maybe, Lloyd, I will ask you to give a little bit more detail about how that was identified and addressed.

**MR. ROWSON:** Thank you, Liam.

Yes, Lloyd Rowson, for the record.

I agree that is an excellent example. We do risk assessment ahead of any new development, underground development activities, so the geotechnical risk assessment and develop a geotechnical management plan for each of our headings, and in that we identify the risks, inflow risks, ground movement risks, and we also have a process that validates to make sure that the performance of what we are installing or building in terms of ground support is in line with what we anticipate and if it isn't we take corrective actions. And the change of tunnel liner support from our former mine development system to the new Austrian tunnelling method is an example of that adaptation. We identified that movements and the stability of our former MDS tunnels were not in line with what we wanted them to be for long term and low cost safe operation and made a change for that. Thank you.

**MEMBER MCKINNON:** Okay, thank you.

**THE PRESIDENT:** Okay. Thank you very much.

And, Mr. Gorman, thank you for your intervention.

Any final words before we move to our next intervenor?

**MR. GORMAN:** No. Just once again, thank you for having me appear before the Commission today and for the opportunity to speak.

**THE PRESIDENT:** Thank you.

Our next presentation is by the Kineepik Métis Local, as outlined in CMDs 21-H2.19 and H2.19A.

I understand that Mr. Mike Natomagan will present this submission.

Mr. Natomagan, the floor is yours.

**CMD 21-H2.19/21-H2.19A**

**Oral presentation by the Kineepik Métis Local**

**MR. NATOMAGAN:** Good morning.

I will wait until they bring up the screen.

--- Pause

**MR. NATOMAGAN:** There we are on.



All right, good morning.

For the record, Mike Natomagan, Mayor of Pinehouse and President of the Kineepik Métis Local.

--- Indigenous language Prayer /

Langue autochtone parlée

**MR. NATOMAGAN:** Thank you for the opportunity to present this intervention from the Kineepik Métis Local, Northern Village of Pinehouse, on behalf of the Cameco renewal application for the Cigar Lake Operation mine licence, to the Canadian Nuclear Safety Commission.

As a rights-bearing Indigenous community, we need to find and sustain partnership opportunities with developers as we continue to live and use the land that we have always used.

Kineepik and Northern Village of Pinehouse have a strong relationship with Cameco and Orano, which is strengthened by a written Collaboration Agreement. This Agreement allows a continuous communication process which creates ethical space for engagement.

As a community we leverage this Agreement to offset current community challenges, not the least of which is reducing the impact of poverty caused by ongoing colonialization. When we consider the fine statement by the Conference Board of Canada that our region, Northern Administrative District, is the second poorest region in

Canada, partnerships make absolute sense.

We expect that this relationship will evolve, including the intent of UNDRIP, along with calls for action from the Truth and Reconciliation Commission, and continue to meet all obligations under section 35 of *Canadian Constitution*.

Pinehouse is located in the Kineepik Métis mapped territory on the western shore of Pinehouse Lake. The Village of the Métis Local are transforming the community into a thriving self-sustaining example of power of partnerships.

We as an Indigenous community have worked with industry for many years through the formalized partnership with signing of a collaboration agreement with Cameco and Orano. From that agreement, the community has leveraged many initiatives, including hosting three seasons of Recovery Lake camp, Annual Elders' Gathering, student scholarships, recreation, and housing.

Year over year we have increased our industrial work capacity, with demand for services and expertise growing. We host many of our workforce training requirements in-house. The ability to use our language and culture within our training is bringing pride to our community as we continue to organically grow a blended cultural workforce with industry partnership.

The parties to define those collaboration agreements are Cameco Corporation, Orano Canada, Northern Village of Pinehouse and Kineepik Métis Local.

The collaboration agreement also provides an important forum: the Joint Implementation Engagement Subcommittee. The JIES was developed in collaboration with industry and shares information on matters related to the environment, the operations, proposed authorizations, and address issues raised by communities. We, the JIES members, are the primary link between Cameco and the Northern Village of Pinehouse and the Kineepik Métis Local. We act as the first point of contact on community engagement matters. This engagement capacity has evolved beyond managing our communications with Cameco and Orano. We now actively engage with our community, land users, forestry, industry, government ministries on all activities that are a concern of our mapped territory.

In part, we can use the collaboration agreement to continue the community's cultural heritage as our Indigenous roots are tied to the land. We also use the collaboration agreement to focus on development of local businesses, workforce and training plans, community investments initiatives, community engagement, environmental stewardship activities. This ongoing engagement with industry, combined with the continued

support we are able to manage the organic growth through an Indigenous lens and bring pride to our community.

It is understood by Kineepik that we are responsible for maintaining our culture, language, and identity through the stewardship of our land we use. Our partnership agreements make this much more possible.

As an Indigenous leader for the community, I also see first hand the positive impacts industry has had on our community. These impacts will continue to increase as we are able to manage the growth. This partnership reaffirms and formalizes our longstanding relationship. For over two decades, Cameco has engaged with Pinehouse residents through direct communications with community members and leadership.

Environmental stewardship is important to our community members as we want to ensure that the environment is protected for our younger generations. This cannot be understated, for the land is akin to our identity. We will continue to use the land long after industry is done, and if we know how to manage any issues, we can follow our customs of leaving the land in usable condition for future generations.

I have seen how Cameco is committed to ongoing engagement with the community. Community members are encouraged to bring forward any questions or concerns

about the operations and the environment to the JIES representatives. The JIES members will then raise the questions during quarterly meetings so that it can be addressed by the company representatives. The JIES works to ensure information is shared regarding areas of interest that have specifically been identified by community members. As the local experts, the community JIES representatives also play an important role for Cameco by providing advice based on interested and need regarding community engagement strategies for planned and future site-based projects.

Over the years, the community has been generally supportive of Cameco's operations. I feel Cameco has successfully transitioned the Cigar Lake operations through commissioning to full production during the licence term. Cameco has managed its operations in and out of a state of safe and stable care and maintenance and are satisfied with the strong performance in the safety and control areas of worker safety, radiation protection, and environmental protection. Cameco has kept us informed about the site and the measures it took to ensure safety of its workers and northern communities more recently with the COVID-19 pandemic. I believe the company has clearly demonstrated that it is a qualified operator.

I am pleased to provide you with this

letter of support regarding the renewal application for Cameco's uranium mine licence for Cigar Lake operations on behalf of Kineepik Métis Local and with the support of the Northern Village of Pinehouse.

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

We'll start with questions.

Dr. Berube?

**MEMBER BERUBE:** Well, I want to thank you for your presentation and taking the time to come and speak to us. It's very important to hear from local communities, especially that are engaged directly with the licensee.

Would you mind telling me how big your village is and approximately how many people actually work at the Cigar Lake facility?

**MR. NATOMAGAN:** We are a community about 1,500 people in population, and predominantly Métis people. And of course we have Lac La Ronge Indian Band members and Canoe Lake and English River. So we're all mixed here.

And at the peak, our sites, you know, we had over 200 people working at Key Lake and McArthur at their peak. But with the care and maintenance, we have about, you know, 30 people that are working now at Cigar Lake operations. So it's not only those are direct employment with Cameco and Orano at McClean, but we also

have an economic arm with our business development Pinehouse Business North that we did very well with Cameco giving us that opportunity, especially at, you know, Key Lake and McArthur.

So we're hoping as a community this industry is going to come back soon. And that, you know, we as a country in the world will evolve into using more nuclear energy and, you know, as we talk as a province of small modular reactors, we're all in favour of this clean energy. And we definitely need to continue the great partnership that we have with industry and we need to have government also playing a part.

**MEMBER BERUBE:** And in that light, Cameco, of course, you're in the process of reschooling of operations at Cigar Lake, I guess, that's what I heard. Just can you go through the onboarding process for new employees. Just give me some idea of what processes you bring them on with, how you do your safety training, your site familiarization.

And if CNSC, could you please comment on how you would inspect that and verify that that kind of work is actually meeting your standards.

**MR. MOONEY:** Sure, I will ask Lloyd Rowson to talk about that.

I think there's a particular COVID flavour

that's really important to talk about, because Lloyd has gone out of his way, done a tremendous job both when we restarted in September, but also over the last number of weeks at Cigar Lake to make sure everybody understands, you know, what different measures are going to be in place, like how Cigar will look different than when they were last there. But also in relation to the training and onboarding of new employees more generically.

But I did want to take the opportunity to thank Mayor Mike for his intervention. And as he said, the focus for the community of Pinehouse has been in relation to our McArthur River and Key Lake operations. They're both in a state of safe care and maintenance. And I would second, Mike, that I would really like to see those operations coming back as soon as we can and get our partners like Pinehouse the community but also Pinehouse Business North back working at that operation.

I think the last piece would maybe after Lloyd talks about training and orientation for new employees, maybe a little bit about Pinehouse and the work that they do at Cigar Lake would be helpful.

**MR. ROWSON:** Thank you, Liam Mooney.  
Lloyd Rowson, for the record.

We do have an extensive training program at Cigar Lake. All critical positions and critical tasks



are identified, and we have a systematic approach to training in place. And for a new person onboarding, they will take on a role. That role will have predefined qualifications attached to it. We will ensure that the worker is provided the right training. Various means that we provide that, but critical is that they're there and we have assessed any risks related to each position and have provided the right training. And then importantly, where necessary, we have confirmed or validated that they are competent in the field. And those tools are all deployed and commensurate with the risk that the task that they're engaged in represents.

**MEMBER BERUBE:** Any specific example you could give me? What are your core training programs you do with a new employee? Must be safety, security, there are some things -- like are you familiar with these or can you give me a concrete example?

**MR. ROWSON:** Yes, good examples of core competencies would be radiation protection and supervisor radiation protection, if they happen to be in supervision. All workers need to be trained on how to use their personal protective equipment and dosimetry.

But also in conventional things not unique to nuclear facilities; right? We're an underground mine, so all people will do safety orientation. If it applies to

their job, fall protection, confined space entry, respiratory protection. These are all qualifications and programs that we offer for a very broad group of employees.

**MEMBER BERUBE:** CNSC, if you could please illustrate how you actually inspect these training programs to see if they're suitable, particularly in radiation protection areas, if you could, thank you.

**MS. MURTHY:** Kavita Murthy, for the record. I see that William Stewart is ready to respond, so please go ahead, William.

**MR. STEWART:** Thank you.

William Stewart, senior project officers, Uranium Mines and Mills.

So we do compliance on orientation and training activities through a number of different steps. First I'd like to say when staff -- CNSC staff go on site to do inspections, we actually have to go through the on-site orientation process. So we're exposed directly to the orientation process through the short-stay orientation. And we do review what information is provided at that point.

We also have specific compliance related to the training programs, and I will pass it to a training specialist shortly to talk about that.

I have also personally assessed Cameco's

retraining or special training they have when they've had an extended shutdown and they bring employees back to work, where they reassess the information that they have on hand, make sure that they are aware of any changes that take place, any new risks or hazards that they may be aware of. So I have directly assessed the kind of gap assessment that Cameco has done with respect to changes in the operation after extended breaks, and particularly with the return to work post-COVID, Cameco was asked to provide any updates to their training program, return to work orientation as it related to COVID.

So I'll now pass this on to our training specialist, Moe Abdo, and then we also have our specialist related to radiation protection training available if additional information is required.

So over to you, Moe.

**MR. ABDO:** Mohammed Abdo, for the record, training program evaluation officer at the CNSC.

The CNSC -- we require the licensee to implement the systematic approach to training to ensure workers are trained, qualified to carry out their duties. As part of the inspections, we evaluate that they analyze the job, design, develop, implement, evaluate their training programs accordingly.

And as part of the onboarding or return

from long period of absence, we require the licensee to have a training change management process in place to ensure workers have the right knowledge and skills to carry out their duties over the licensed activity. From our previous license compliance verification activities that we did, we verified that Cameco Cigar Lake does have a SAT based training system and that their training change management process in place is effective to ensure their training program and their workers are trained and qualified.

I'll be happy to provide more information if needed. Thank you.

**MS. MURTHY:** Dr. Berube, you also asked about specifically about radiation protection training, so I would like to ask John McManus if he has anything to add.

**MR. McMANUS:** Thank you. John McManus, radiation protection specialist with the CNSC.

I'd just like to add that the RP programs for Cigar lake includes very clear criteria on workers that satisfy the designation for a nuclear energy worker, and for those workers the onboarding process includes a provision of all the information required under section 7 of the *Radiation Protection Regulations*, which is risk information on radiation, dose limit information, and obligations and rights for female NEWs.

**THE PRESIDENT:** Thank you.

Mr. Mooney, you had something you wanted to add?

**MR. MOONEY:** Yes, thank you. I did want to specifically acknowledge with the restart in September and also more recently the work that Lloyd as a GM had done in that regard to make sure that every returning employee had some Facetime virtually with him and give them a sense of the change that was in place in working with, you know, Trent Hamilton, the safety manager, and making sure that those packages were live.

I think somewhat underappreciated is the effort that has been underway to make sure that Cigar Lake can continue to operate safely, that, you know, they have converted the gym into an eating area. You know, underground we've spent the last few months constructing broader underground eating facilities to protect our workers. But that has been a concerted effort.

And when we brought people back in September, we had refresher training to make sure that, you know, from April to September people were up to speed and put in the right head space. And I think that is reflected in the fact that, you know, that that facility was able to restart safely.

And I think the only other thing I would

add on some of the standard training that we have in that regard but one of the pieces that we've rolled out more recently is Expect Respect within Cameco. That's been a corporate initiative. But all our employees are required to take that.

And then mental health first aid has been another focus for us both corporately and at site. And I think that is one of the things that we're going to be dealing with sometime post-COVID. When I talk about Cigar Lake and changes that were made with the eating set-up, losing a gym at a northern mining -- a remote mining camp is -- presents a challenge. And you know, that's something that, you know, we're working on and making sure that the supports are in place.

You know, it's -- we talked about in the safety side of things when people get to work, we talked about, you know, an airline and a hotel situation when they get there. They're separated from their family. And you know, people are dealing with the stress of the pandemic before they get to site. So you know, two weeks away from their family is something that, you know, we recognize brings additional stress and that we need to address as an organization. So there are steps being taken in that regard.

So just, you know, there's the broader

safety training, but the mental health component, that's a big part of it.

And you know, I took a lot of positives out of Taryn's presentation yesterday when she talked about, you know, being the first female JBS operator in the world, and you know that her experience at three different Cameco sites, you know, in different roles, radiation, environment, and then a JBS operator. She's had a very positive experience. And again, I think that speaks to the fact why Cameco is an employer of choice.

We heard Mayor Mike talk about, you know, the desire to get back on site and get working there. And I think that, you know, we share that interest of course. And I think that speaks volumes about the fact that people are treated very well at Cameco and overall we continue to be an employer of choice and someone who allows people to -- with the two in, two out -- to earn a good income and -- some of the pictures yesterday -- go back and traditional lifestyle with their families. So there is the advantages to that as well.

**THE PRESIDENT:** Thank you for sharing that, Mr. Mooney.

Dr. McKinnon?

**MEMBER MCKINNON:** Yeah, thank you. I would like to just continue on this theme of the training.

And so my question is directed to Cameco. With regard to training of personnel from the remote communities, is all the training done in-house by Cameco? Or do you have collaboration with any of the regional colleges' training centres for more generic aspects of skills training for working at mines?

**MR. MOONEY:** It's Liam Mooney. I'll perhaps ask Kristin Cuddington to talk about some relationships we have with local learning institutions.

But the training that Lloyd talked about, the radiation protection, the fallow (stream lost / diffusion perdue) that's developed in-house for the most part. And the orientation, that's delivered by Cameco trainers.

I think what we've been really pushed to do over the last number of years is look at efficiency opportunities to have common training packages and that they can perhaps then be delivered remotely. And Andy Thorne, our VP of mining, is leading work on digital transformation at Cameco and looking in the training space in particular that there are opportunities there for it to be delivered remotely.

But by the same token, I think Lloyd talked about it and actually Mr. Stewart talked about in relation to the validation of the competencies that --



making sure that, you know, we're checking in on that.

So overall I think that's -- it's a bit of a mix, but the -- predominantly Cameco.

But on the broader more, you know, Taryn Roske talked about it yesterday, the training she got, maybe that's where Kristin could give a bit of a background of our relationship with some higher learning institutions and our work in that regard.

**MS. CUDDINGTON:** Kristin Cuddington, for the record. Great.

So I'd like to point out Northlands College. So this is located -- it's a college located in northern Saskatchewan in La Ronge. It offers trades and technical courses as well as training for careers in health care and the mining sector, and a little bit to what Taryn had pointed out yesterday.

But a partnership that we have is with Northern Career Quest. So this is an industry-led training program that is directed toward Indigenous residents of northern Saskatchewan. So we've had a training relationship with Northern Career Quest since 2008, and an agreement in 2020 to hire six Indigenous apprenticeships in the Northern Administrative District, looking specifically actually at our collaboration agreement communities of the Lac La Ronge Indian Band, English River First Nation, and

Pinehouse, which includes the municipality as well as the Kineepik Métis Local.

So we've actually also launched a fourth year of our pan-Northern Scholarship Program which started in March of 2018. So really what we're looking at is creating capacity in the North.

In addition to those relationships or that partnership we have, we also do mine site tours, workshops, school presentations, career fares for students that we've hosted, and then we've participated actually the Northern Environmental Quality Committee Uranium 101 sessions.

So you know, there's a number of different ways we build capacity, either through relationships or just through our robust community engagement and participation from the communities.

**MEMBER MCKINNON:** Thank you.

And I'm just curious about the feasibility. You mentioned online training, and I imagine if it is feasible, it would really be a great benefit considering the travel distances that could be eliminated.

What is the general status of connectivity and -- you know, for training, but also in the sense of just having people accessible for any safety issues that would crop up during operation of a mine and remote working?

Could you just talk about that a little bit?

**MR. MOONEY:** Sure. I'll answer the easy question first, connectivity.

That's been something that infrastructure has followed the mines into the north, roads, telephone lines, cell phone towers, and there's been a lot of effort in relation to the internet.

You heard yesterday still some frustration that in those remote communities it's not great, but nevertheless, it is improving. And I think that's been an area of focus.

I know Cameco has contributed funding to assist SaskTel in getting high speed broadband further into the north, delivering that further into the north, and I know the provincial government has further initiatives under way in that regard.

Going to the topic of emergency -- sorry, one last point that I feel obligated to mention is we do have Wi-Fi at site, and so in the camp environment. And you know, we talked about mental health and, you know, that's been a real focus in particularly making sure that people have the amenities that they do at home, so all your streaming services. That's really increased the demand, and our BTS department has worked really hard in that

regard.

Going to the question on emergency response, you know, we -- I'd ask Trent Hamilton, who is -- has participated in emergency response training and been a lead at a couple of our sites, McArthur and Cigar Lake now, to give you a bit more of a sense, but we do have a mutual aid agreement in place, so in addition to the resources that we're required to have through the Saskatchewan provincial mining regs, there are the required resources on site. We also have additional capacity between the sites if need be.

And that's -- that agreement is between ourselves and Orano and, of course, there's that flow of information between our Cameco sites.

So Cigar Lake and Rabbit Lake, for example, are quite close in the broad scheme of things. Similarly, Key Lake and McArthur are 80 kilometres apart on a well-looked-after road because that's the road our slurry trucks go down.

But maybe Trent can give just a bit more of a flavour on ERT, MRT.

**MR. HAMILTON:** Sure. Trent Hamilton, for the record.

Absolutely. With the increase in Wi-Fi and connectivity around the site, that extends into the

underground environment as well. That's really opened up the doors for communication as well as training. And we're certainly looking at expanding where we train, how we train and, of course, training remotely.

So from the emergency response perspective, we, last year, actually did a session with the provincial government and got a number of folks certified in mine rescue, all done remotely and in the midst of the pandemic, so that was a big win for us and it demonstrated to us that we can do this and we can adapt.

**MEMBER MCKINNON:** And do you carry out joint training exercises, emergency response practice with Orano given your transportation back and forth between the mines?

**MR. HAMILTON:** I've only been working at Cigar Lake for two years, so in that time we haven't had in-person, face-to-face training with Orano, but we do -- we do have mutual assistance agreements in place.

So for some instances, we could call on them for support, and vice versa, as well as our Rabbit Lake operation nearby.

**MR. MOONEY:** Maybe I'll weigh in there.

We do have a packaging and transport program, and we have outreach through that. We talk to first responders along the path of our preferred route of

transportation by truck which is carried out, incidentally, by Northern Resource Trucking, which is a wholly-owned presentation leader by Kitsaki, but is a wholly-owned indigenous company.

In any event, in relation to the -- we did conduct full-scale exercises on a regular basis. Our schedule is probably not what it should have been given COVID and some potential delays in that regard.

But for sure, we do conduct those on a regular basis with Transport Canada involvement. We have a scenario and we work with a local fire department, for instance, l'Orange or Prince Albert, to involve them in that exercise, full-scale exercise.

And when we are not doing full-scale exercises, we are looking at tabletop exercises in that regard.

But I think the proof overall is that our product is safely shipped, has been safely shipped in Saskatchewan for many, many years and we continue to look for opportunities for improvement.

We talked about our focus on continual improvement, but our outreach activities have really helped us make sure that if we do have to call on a local fire department or emergency responders, they're aware of our product and what the appropriate response is and, at the

same time, we're getting our team together both from site and from the corporate office, Marc-Andre Charette here. And actually, he's located in Port Hope.

But John Zayden is our emergency response coordinator and he has a ton of experience in his previous job with a third party contractor and he brings that to bear to make sure that if there is an incident, however minor, that it's appropriately responded to.

**MEMBER MCKINNON:** Okay. Thank you very much.

**THE PRESIDENT:** Thank you. And thank you again, Mr. Natomagan, for your intervention.

Any closing remarks you'd like to make, please?

**MR. NATOMAGAN:** Thank you again, Madam Chair.

I certainly appreciate again, you know, with -- you know, being part of the intervention. I think -- you know, I talked about the power of partnerships and more so as we're moving forward to the new era. You know, these are very interesting and challenging times with the pandemic that we have on our hands and now we're going to move forward. We all need to, you know -- to move forward.

So I had the privilege of being blessed

enough to have worked with Cameco on a mine site for 12 years between Key Lake and McArthur. And what I've witnessed, you know, of how they do things on site, you know, this is firsthand experience before I took this community development here for the last 16 years being part of leadership in a small community where it's, you know, definitely challenging at times.

So you know, I had the privilege of working as -- for 12 years on site and what they do and, you know, it's one of the most regulated industries there is. And I got to witness that, and how hard they worked to -- you know, to stay safe and how they do.

And that's why I'm very supportive of this industry.

But in saying that, you know, I'd certainly like to invite you, Madam Chair, and your Commission to visit our community one of these days, you know, just to see how we're doing and what we've done with the industry being part -- as partners.

So with that, you know, the invitation for -- from my house to you guys is, you know, more than welcome.

I wish we can do this one of these days that you guys can come and visit us.

**THE PRESIDENT:** Thank you very much for



the invitation, and we look forward to visiting you in person.

This concludes the oral presentations by intervenors. We'll now take a break for lunch or coffee, whatever works for you, and we will reconvene at 1:30 p.m. EDT for the continuation of the hearing.

See you shortly. Thank you.

--- Upon recessing at 12:45 p.m. /  
Suspension à 12 h 45

--- Upon resuming at 1:30 p.m. /  
Reprise à 13 h 30

**THE PRESIDENT:** Welcome back. We will now move to the written submissions.

And Marc, if you could please lead us through the written submissions. Thank you.

**CMD 21-H2.3**

**Written submission from the Fond du Lac First Nations**

**MR. LEBLANC:** Thank you.

The first written submission is from Fond du Lac First Nations, as outlined in CMD 21-H2.3.

Are there any questions from the

Commission Members on this submission?

Thank you.

**CMD 21-H2.4**

**Written submission from the Mining Association of Canada**

**MR. LEBLANC:** The next submission is from the Mining Association of Canada, as outlined in CMD 21-H2.4.

Are there any questions from the Members on this submission?

There's none.

So just for the participant, you'll note that I'm waiting a few seconds between each just to make sure that the Commission Members have a chance to go through their documentation.

Thank you.

**CMD 21-H2.5**

**Written submission from the  
Saskatoon Regional Economic Development Authority**

**MR. LEBLANC:** The next submission is from the Saskatoon Regional Economic Development Authority, as outlined in CMD 21-H2.5.

Any questions from the Members?

**CMD 21-H2.7**

**Written submission from the  
Northern Village of Ile a la Crosse**

**MR. LEBLANC:** The next submission is from the Northern Village of Ile a la Crosse, as outlined in CMD 21-H2.7.

Any questions from the Members?

**CMD 21-H2.8**

**Written submission from the  
Northern Settlement of Uranium City**

**MR. LEBLANC:** The next submission is from the Northern Settlement of Uranium City, as outlined in CMD 21-H2.8.

Any questions from the Members?

**CMD 21-H2.9**

**Written submission from the  
Kitsaki Management Limited Partnership**

**MR. LEBLANC:** The next submission is from

the from the Kitsaki Management Limited Partnership, as outlined in CMD 21-H2.9.

Any questions from the Members on this submission?

**CMD 21-H2.11**

**Written submission from the Canada-India Business Council**

**MR. LEBLANC:** The next submission is from the Canada-India Business Council, as outlined in CMD 21-H2.11.

Any questions from the Members?

**CMD 21-H2.12**

**Written submission from the Lac La Ronge Indian Band**

**MR. LEBLANC:** The next submission is from the Lac La Ronge Indian Band, as outlined in CMD 21-H2.12.

Any questions from Members on this submission?

**CMD 21-H2.14**

**Written submission from Rose Tsannie**

**MR. LEBLANC:** Thank you.

The next submission is from Ms. Rose Tsannie, as outlined in CMD 21-H2.14.

Any questions from Members on this submission?

**CMD 21-H2.16**

**Written submission from the  
Saskatchewan Chamber of Commerce**

**MR. LEBLANC:** The next submission is from the Saskatchewan Chamber of Commerce, as outlined in CMD 21-H2.16.

Any questions from the Members on this submission?

**CMD 21-H2.17**

**Written submission from the Canada China Business Council**

**MR. LEBLANC:** The next submission is from the Canada China Business Council, as outlined in CMD 21-H2.17.

Any questions?

**CMD 21-H2.18**

**Written submission from the  
Athabasca Joint Engagement and Environmental Subcommittee**

**MR. LEBLANC:** The next submission is from the Athabasca Joint Engagement and Environmental Subcommittee, or the AJEES, as outlined in CMD 21-H2.18.

Any questions from Members on this submission?

**CMD 21-H2.20**

**Written submission from the Northern Village of Beauval**

**MR. LEBLANC:** The next submission is from the Northern Village of Beauval, as outlined in CMD 21-H2.20.

Any questions from the Members on this submission?

**CMD 21-H2.21**

**Written submission from Dr. Ken Coates**

**MR. LEBLANC:** The next submission is from Dr. Ken Coates, as outlined in CMD 21-H2.21.

Any questions on this submission?

**CMD 21-H2.22**

**Written submission from the  
Greater Saskatoon Chamber of Commerce**

**MR. LEBLANC:** Thank you.

The next submission is from the Greater Saskatoon Chamber of Commerce, as outlined in CMD 21-H2.22

Any questions from Members on this submission?

**CMD 21-H2.24**

**Written submission from the  
North Saskatoon Business Association**

**MR. LEBLANC:** The following submission is from the North Saskatoon Business Association, as outlined in CMD 21-H2.24.

Any questions?

**CMD 21-H2.25**

**Written submission from PBN Construction**

**MR. LEBLANC:** The next submission is from PBN Construction, as outlined in CMD 21-H2.25.

Any question from Members on this submission? Any questions?

**CMD 21-H2.26**

**Written submission from the  
United Steelworkers, District 3**

**MR. LEBLANC:** The next is from United Steelworkers, District 3, as outlined in CMD 21-H2.26.

Any questions on this submission?

**CMD 21-H2.28**

**Written submission from the  
Northern Saskatchewan Environmental Quality Committee**

**MR. LEBLANC:** The next submission is from the Northern Saskatchewan Environmental Quality Committee, as outlined in CMD 21-H2.28.

Any questions from the Members on this submission?

**CMD 21-H2.30**

**Written submission from the Des Nedhe Group**

**MR. LEBLANC:** The next submission is from



the Des Nedhe Group, as outlined in CMD 21-H2.30.

Any question from the Members on this submission?

I think we have Mr. Mooney who would like to address.

Mr. Mooney, please proceed.

**MR. MOONEY:** I did want to just interject on -- in that, given Des Nedhe's relationship with English River. And we had a chance to confer internally here, and Kristin Cuddington just wanted to make an opportunity for some further discussion with English River and make that offer on the record.

So if Kristin could just give you a little bit of -- a little bit of insight into where we could probably have that conversation that was asked for yesterday.

**MR. CUDDINGTON:** Kristin Cuddington, for the record.

So similar to our other agreements, there's also an opportunity to meet and discuss. We've established a sub-committee that includes English River First Nation members to provide advice on engagement strategies, communications that are in line with the community's unique needs, so raise concerns and opportunities for those to be addressed.

Those representatives, similar to the other agreements, are appointed by leadership and, in the English River First Nation case, are or include Elders, land and resource users in addition to the lands and resource manager.

So we meet four times a year. Agendas are driven by the community representatives.

Our next meeting is likely scheduled May or in June, and this could be the opportunity to include CNSC Staff, the ERFN consultant to discuss their concerns.

Our engagement principles, we spoke a little bit about that when we presented yesterday but, really, are to provide clear and in plain language communications, and we are committed to continual improvement.

I think it's good to note that the community is currently updating their 2017 country food study. Community members are interviewed, provide samples of local food and water which is then submitted for testing. The results will be communicated back to the community by community members themselves and an independent consultant really to provide that added comfort that the water and food are safe.

And just something to point out, that English River's collaboration agreement does focus on Key

Lake and McArthur River operations, but we do provide information and respond to inquiries on Cigar Lake, but really pursuant to our public information program and as outlined in their agreement.

Thank you.

**THE PRESIDENT:** Thank you for that offer, and very much appreciate that.

Let me just ask, the concerns that were raised in the intervention. Had those been previously communicated to you in this forum?

**MR. CUDDINGTON:** Kristin Cuddington, for the record.

Those concerns hadn't been raised to us, specifically to our engagement on our relicensing. Again, we really do focus on Key Lake and McArthur River as they've expressed interest and kind of as outlined within their agreement, but we're happy to continue to provide information on Cigar Lake and work to address those concerns.

**THE PRESIDENT:** Thank you.

Thank you. This concludes the written submissions.

And I understand, Ms Murthy, you have an update on the Staff's submission or recommendations you'd like to make, so I'll turn the floor to you, please.

**MS MURTHY:** Thank you, Madam Velshi.

Kavita Murthy, for the record.

Thank you for giving us this opportunity to make a correction to the proposed draft licence.

The draft licence starts on page 195 on the PDF version of Staff CMD 21-H2. I'll give you a few seconds to get to that page.

If you give me a signal to proceed, I'll proceed.

**THE PRESIDENT:** I'm sorry. What was the page again, Kavita?

**MS MURTHY:** One nine five (195) of the PDF version.

**THE PRESIDENT:** Thank you.

**MS MURTHY:** Good? Okay, thank you.

Kavita Murthy, for the record.

Section 4 of the licence describes the licensed activities. In the first paragraph, that is, paragraph (a), we make reference to milling of uranium ore. This is not correct.

The licensed activities for Cigar Lake just relate to the mining of uranium ore. This section, therefore, should read:

"Prepare a site for and construct, operate, modify and decommission a

nuclear facility (hereinafter the facility) at the site known as the Cigar Lake Operation in the Province of Saskatchewan as shown in the drawing referenced in Appendix A to this licence." (as read)

Staff request striking out of the words "for the milling of uranium ore" completely.

Paragraph (b) specifies the activity authorized as the mining of ore, which is correct.

The reason for this request is that there is no complete milling happening at Cigar Lake, as there is no processing and treatment to extract uranium concentrate. After the ore is extracted from the ore body by jet boring system, it is transferred to a milling area underground that produces the ore slurry that is pumped to the surface for transport to McClean Lake.

The grinding that occurs underground is only physical, and it is not a chemical process for the extraction and the facility does not meet the definition of a mill as given in the Regulations.

These changes do not impact the safety case, nor the licensing basis, or the Staff recommendations to the Commission, but we do apologize for this error.

Thank you.

**THE PRESIDENT:** Thank you for that.

Before I ask the other Commission Members if they have any questions, does the existing licence have the words "for the milling of uranium ore" in it?

**MS MURTHY:** Kavita Murthy, for the record.

I believe it does, and I believe this error was propagated because there were no changes to the licensing activities, and so it slipped our QA checks.

Thank you.

**THE PRESIDENT:** Thank you very much.

Well, why don't we move to our round of questions? And we'll start with Dr. Berube.

**MEMBER BERUBE:** Yes, thank you. There's a number of questions I have to ask that we haven't addressed with the interventions so far, but I will start with my first one.

It's got to do with the new Austrian tunnelling process in terms of its effectiveness and lessons learned.

I heard earlier from the mine manager that he had instituted this because he was having problems with, I guess, concrete retaining type of structure. If you could speak to me about basically the benefits of that tunnelling process in this particular case in terms of water ingress within the mine itself and also in terms of

radiation protection for the staff that are actually undergoing drilling.

**MR. ROWSON:** Thank you very much. It's Lloyd Rowson, for the record.

The adoption of the new Austrian tunnelling method which we commonly joke is neither new nor Austrian -- it's a method that came out of the seventies and pioneered at first application in England -- the transition to -- from MDS to the new Austrian tunnelling method has been very successful for us. It has largely mitigated the concerns that we found, the sort of squeezing ground related to the progressive freezing application above. It has performed and exceeded our expectation in all performance regards.

It is monitored very closely, and we have every confidence that it will continue to perform well for us moving forward.

The adoption of the new Austrian tunnelling method was not related to radiation protection. It doesn't have a significant bearing on radiation protection. These tunnels are typically not driven through radon -- or radiation material, ore material, at all. So I can say that, from a radiation perspective, there -- it's not material, the liner design or tunnel excavation in our application at Cigar Lake.

**THE PRESIDENT:** Thank you.

Dr. McKinnon.

**MEMBER MCKINNON:** Thank you.

I changed the order of my questions to follow on with a question about the NATM. And I must say, when I was introduced to that method years ago, you are correct, it is neither new, and it was called "not another tunnelling method" at the time.

But my question about it is, obviously, it's introduced to manage the ground deformations that occur before you put the ground support in, so the ground is very weak at the mine, so I'm just wondering what other measures in terms of, you know, general mine safety and ground control -- what are the measures that are taken to ensure the integrity of the ground support systems throughout the mine and to prevent any deterioration of support conditions, force of ground deformation control and so on?

What measures do you take to control that?

**MR. ROWSON:** Thank you. Very good question.

Lloyd Rowson, for the record.

Our -- so alluded to earlier in our discussions. Our ground control program begins with a risk assessment prior to any ground being broken. We do a



geotechnical reconnaissance through probe drilling. We do a geotechnical analysis of that. We develop a geotechnical map and management plan for each and every heading prior to breaking ground, characterizing the ground for its potential to make water given our particular hydrogeological setting, but particularly important under the orebody where we have a weaker rock package, a less competent rock, we need to characterize the mechanical characteristics of the rock, a rock mass characterization.

We have a number of factors that we can adjust depending on what we find with that reconnaissance drilling: the thickness of our liner as well as the number and size of steps we take when we are excavating, length of bolts, number of bolts, spacings of bolts, those types of things, number of yield stress control liners that are embedded in the liner itself. The placement and position of those can be adjusted as a function of the ground types.

And follow that up after excavation with a comprehensive monitoring program, which is varied depending on the risk presented in each particular area. That would include embedding instrumentation in the liner using some more state-of-the-art -- actually understanding directly and measuring what stresses our liners are seeing. We use extensometers in the ground, we use prisms surveyed with EDM, or electronic distance measurement, or laser surveys

on an ongoing basis and that is plotted up. And we have routine monitoring meetings where we review all that monitoring data to make sure it is compatible with the design of the liner, make sure the yielding for example of the liner is within the capacity.

And of course all of that quantitative technical data collected sort of automagically we say, it is embedded instrumentation and also we augment that with good old-fashioned visual rock mechanics inspections by competent professional engineers. They do that on a frequency as a function of the risk presented. Typically, highest frequencies are every week and lowest frequencies would be about once per quarter.

**MEMBER MCKINNON:** And something related to that, that is connected with the rock mass itself, but above all the levels where you have your development work you have very saturated sandstone and so relatively high groundwater pressures could be present. How do you map or take care that when you are doing development work you don't encounter any high pressure water conditions? What measures do you take to detect those in advance and then to control the water pressure that might be there?

**MR. ROWSON:** Lloyd Rowson, for the record. The design of the mine from its outset coming out of the 2005-2006 inflow events was revised and a

more comprehensive program was put in place and a very important measure was simply moving farther away from that unconformity and giving ourselves the best chance we could to avoid those high-risk zones. So we have really fundamentally changed the picture compared to years prior in previous iterations of the mine plan. So we believe we have intrinsically reduced the risk of encountering high-pressure water.

In addition to that, as I alluded to in part of our geotechnical program, is to probe all ground ahead of development. So we are actually measuring and identifying structures and assessing each structure for its potential to make water. We can measure that directly with our probe holes and we can also characterize them for their potential to carry water. So we can see what water is present and what water might become present.

And I must also mention an incredibly important control, especially in the area around our ore zone, it's bulk ground freezing. We are reducing the -- effectively reducing the permeability to near zero of the rock mass by bringing the bulk temperature of the rock mass to well below zero and as a consequence some often are surprised to learn that the mine today is quite dry underground, relatively speaking. Those measures all together have been proven quite effective.

**MEMBER MCKINNON:** Yes. And if I may continue on the question about the freezing technique and the control of groundwater in particular, has it been quite successful in sort of uniformly freezing the ground or there are some zones which don't completely freeze and does it take -- is there any residual hazard from the -- in place? I'm sorry, I think you may have lost me there for a second. What protocols might you have in place if there would be an unexpected inrush of water?

**MR. ROWSON:** Thank you. Lloyd Rowson, for the record.

The ground program, the artificial ground freezing program that we have at Cigar is in many ways like our mining method, is groundbreaking in the sense of its scale and size. I am not aware of another mine operation anywhere in the world that has successfully implemented such a large scale of artificial ground freezing and we did learn and we did adapt our practices based on what we learned. One of the things we did learn and observe is the ground does not necessarily freeze uniformly. It is driven by, among other things, the percentage of water content in the rock mass and the clay forms that are in and around the orebody at Cigar Lake tend to contain more rock and have more latent heat which must be extracted to freeze the ground effectively.

What we have been able to do is instrument an orebody and we are able to measure the temperatures at an appropriate interval and spacing to confirm that our modelling and predictions are in fact correct in a typical sort of continual improvement cycle where we refine our models, we apply them and then we are able to use data collected, real-world data collected in the mine to validate our freeze growth models. We are able to marry in a bit -- I will put a feather in a cap, but a marrying between geostatistical work and ground freezing work. We are able to marry up what we understand about the geology and rock mass characteristics with thermal performance and create what we kind of call a thermal mechanical model. That has proven very effective and allowed us to achieve quite a lot of improvement in efficiency and we have implemented that over the licence period.

Before any rock is broken at Cigar, before any cavity or any mining activity occurs, we confirm the area that we are going into when we go to extract a cavity meets all of the ground freeze acceptance criteria. There is a procedure that is followed for each and every cavity signoff that goes on and when that is received then we move into an area to begin to extract a cavity. To date we have had a large amount of success. We have had no indication of any kind of unwanted water coming into our mining ore

cavities as we are mining.

**MEMBER MCKINNON:** Okay. Thank you very much. I have many other questions related to this, but I will hold them for another round. Thank you.

**THE PRESIDENT:** Well, maybe I will just follow up. What is the worst thing that can happen at Cigar Lake operations in spite of all these mitigation measures? So even though it is kind of inconceivable, what is the worst disaster that you are prepared for? What would that be?

**MR. MOONEY:** Liam Mooney, for the record. I will ask Lloyd to talk about that in the context of the mine.

Of course the worst thing that could happen is someone being seriously hurt at the mine and I think that on a personal safety side that is a real area of focus.

On process safety, a good deal of work went into our experience with non-routine inflows from earlier and in that regard the last environmental assessment that we did was designed to deal with high volumes of water coming into the Cigar Lake mine and getting the pumping capacity to get the water to surface, getting the storage capacity installed, getting the treatment capacity and then the ability to discharge to

Seru Bay.

So, you know, in the grand scheme of things, after the inflows we did an EA on changing our discharge location so that if we did have those large volumes of water coming into the mine we would be able to keep the mine operable and to be able to address the inflow and at the same time look at changing our discharge so that those larger volumes that I talked about yesterday wouldn't have a physical effect in the downstream receiving environment despite that the water would meet the treated water criteria. So that discharge now is directly to Seru Bay and there is a diffuser there installed and I think that would be our worst case from the perspective of mine safety, if you wanted to look at it from that.

We have spent a lot of time and a lot of energy and the next piece is -- we talked about risk -- is to make sure that we are testing that system and that it is ready to go if it is called on. There is a lot of very expensive pumps that are sitting idle for the most part because, as Lloyd mentioned, it is a surprisingly dry mine. When you are touring Cigar Lake it does not make a lot of water compared to other underground facilities and that is a product of the bulk freezing but also the work that Lloyd described in great detail to make sure that any time we are breaking ground we have good confidence about what we are

going to see there. So I think that would be the high level on that.

**THE PRESIDENT:** Okay. So flooding as opposed to, say, explosion or collapsing?

**MR. MOONEY:** Yes. For our risk assessments we look at all sorts of scenarios, but a non-routine inflow would be something that we definitely don't want to see happen and we feel we are very well prepared through the work of Lloyd and his workforce.

**THE PRESIDENT:** Thank you.

Back to Dr. Berube, please.

**MEMBER BERUBE:** Just on that same vein because water ingress has been a problem in the past, and because we walked the actual physical plant itself in the past visitation there, I am aware the main power transformer, distribution transformer is actually in the bottom of the mine, which becomes problematic. How long can the site be without power before we start seeing a thaw issue and then water ingress issues? Do you have any idea?

**MR. MOONEY:** I'm going to ask Lloyd to talk about that because we have his models, but we also have some real-world data courtesy of the inflow events previously. So maybe Lloyd could give you a bit more information on the speed with which the bulk freeze would in fact thaw.



**MR. ROWSON:** Thank you.

Lloyd Rowson, for the record.

So in terms of the protective barrier bulk freeze, barring any ingress into the mine, that is really not a large threat with relation to power outages. The ground will remain -- the ground freezing will be effective and in place even with no active circulation of brine or active heat removal from our surface freeze plants for a long, long, long period of time, measured in the scale of years.

Now, with respect to running our mechanical systems and power distribution systems as you referenced, our contingency dewatering system has many layers of depth, defence in depth there, and we do have backup power onsite. We have diesel generators that are capable of running our dewatering system. You have to recall as well that if an unexpected inflow were to occur we do also have the capacity to slow down our other loads. We are not going to continue to operate as per normal and we can direct the power that we have available to operate our contingency pumps. And we have a third pump bank in there as well which actually is powered completely independent of the rest of the mine and they are accessible from the surface. Those are well pumps we call them and that is yet another layer of defence in our dewatering

system.

**THE PRESIDENT:** Okay.

Dr. McKinnon, you have another chance.

**MEMBER MCKINNON:** Okay. Good. Thank you.

I would like to ask Cameco about the physical design aspects of the freeze pipe system. I read that brine is used as a medium to cool and I'm wondering, is there any contact between the brine and the rock mass that it could circulate or is it completely contained in the drill string and what processes would you have to manage any potential brine spills if they were to occur?

**MR. ROWSON:** Lloyd Rowson, for the record.

Our design, our brine system is contained, it does not interface with the rock mass or the surrounding groundwater. The holes themselves are steel-cased and that steel casing is embedded in a grout all the way from the collar to the toe of the hole. They are dual-walled and the brine is injected at the bottom of the well through an inner tube and it returns through the outer portion of the well where the goal there is to exchange heat. It removes heat from the rock mass and pumps it to the surface.

We are able in our system to monitor the brine system for leaks quite effectively. We can determine if there is an unanticipated pressure drop or a loss of brine quite quickly and we have instrumentation which would

help us isolate the holes from the surrounding environment.

We have had a lot of success. We have a design that we have arrived on, after some period again of research and development and iterations, that has proven very robust and we do not see -- by any stretch we do not see any kind of routine brine loss or leak to formation.

**MEMBER MCKINNON:** Okay. And during the actual drilling of the freezing holes, I presume they would probably be diamond drill holes, so you would use water in that process and it does go through the orebody. How do you manage the process water from the --

**THE PRESIDENT:** I think we lost you for a bit there, Dr. McKinnon.

**MEMBER MCKINNON:** Oh, sorry, yes.

I will just repeat the last part.

In connection with drilling of the brine holes, I presume it would be diamond drilling that you use, so there would be water involved in that and the holes do pass through the orebody itself. So my question is: How would you manage the water from the drilling process?

**MR. ROWSON:** Lloyd Rowson, for the record.

You are correct. I can confirm that the technique we use to drill holes is diamond drilling and the method is little varied at all from the diamond drilling that is used for exploration activities across uranium

orebodies all over.

And our water management practices would be commensurate with that. We are collecting all cuttings and excess water that does return to site and containing those appropriately. The cuttings generally are in the forms of fines and those are disposed of in our surface facilities, our slimes ponds, and water balance is generally such that we don't make a lot of water in our drilling process. It typically is contained within the drilling footprint or drilling envelope itself.

**MEMBER MCKINNON:** Okay. Thank you very much.

**THE PRESIDENT:** I will shift gears a bit and maybe a question for staff on the *Licence Condition Handbook*.

So given that the proposed activities at Cigar Lake operations remain the same, the licensing basis is the same, can you summarize what are some of the big changes in the *Licence Condition Handbook*? I know there are a couple of new REGDOCs that Cameco needs to comply with, there is a new CSA standard, but it would be helpful if you can just summarize for us at a higher level what are the big changes in the LCH, please.

**MS. MURTHY:** Kavita Murthy, for the record.

So I will ask William Stewart to summarize any changes and speak to the REGDOCs. Thank you.

**MR. STEWART:** Good morning. William Stewart.

There are actually no big changes. I think you hit the critical ones and that is in terms of ensuring that new REGDOCs are fully implemented, brought up to modern standards included in the LCH and fully applied onsite. But because there are no practical changes to the operation -- again, the freeze zones are expanding, but that is an existing operation. The mining areas are -- additional layers are being brought online, but that is part of the existing mine operation. So there are no big changes in the LCH itself because there are no large changes in the activities.

**THE PRESIDENT:** Thank you. Thank you for confirming that.

Back to Dr. Berube.

**MEMBER BERUBE:** I am going to change gears a little bit here too actually. One of the things we have to talk about is fire protection, fire safety systems onsite because of your remote location. Could you just run me through quickly at Cameco the fire protection systems you have in your facilities and also firefighting equipment onsite and the nature of the training in order to address a

larger scale fire, if you could, please?

**MR. MOONEY:** Liam Mooney, for the record.

I'm going to ask Trent Hamilton to talk a little bit about fire protection. As you have seen in the licensing documentation I have before you, we have an emergency preparedness response program and fire protection program that meet the regulatory requirements and ongoing training opportunities provided to our response team, but Trent has a bit more boots on the ground perspective that I would like him to share with you.

**MR. HAMILTON:** Trent Hamilton, for the record.

So when we look at fire and the potential for fires at the Cigar Lake site, we have capabilities for that. We have a lot of trained personnel. We have in the range of 55 to 60 emergency responders on the roster, many of whom are onsite at any given time.

In terms of the equipment we have for firefighting, we have a fire apparatus and of course essentially the same as what a municipal fire department would have.

We go through extensive training as well. Our team members are trained consistently at site, many of whom are actually volunteer firefighters back at their home communities, bringing knowledge to the site and the reverse

as well, giving training back to their communities.

So the site itself, throughout the facility we have fire detection, we have of course alarms throughout the facility and we have a system of communication to enact the emergency response team into action to investigate any potential fire situations.

In addition, we engage a third party to look at all of our code requirements, to National Fire Code, National Building Code, and they go through, look at the entire facility and at all of our capabilities as well.

**MR. MOONEY:** Commissioner Berube, maybe one other piece that I would flag is our insurance providers are very interested in this particular area and so we have another set of eyes that reviews our fire hazard analysis and our compliance, the third-party experts that Trent talked about, their work and follow-up actions, and we get questions from those insurance providers in relation to those. So another check.

Importantly, the Province of Saskatchewan is of course -- when Trent talks about the ERT/MRT, there are specific requirements on numbers and maintaining numbers onsite. We always comply with that. That was a bit of a struggle during COVID given, you know, getting people there and also a challenge when people who were screening out, so we put together a screening process for

COVID. That has changed many, many times over the last 14 months, but in any event, you know, sometimes people would screen out and then it was up to Lloyd and his team to make sure that they maintained that complement.

Again, the risk looks different when we are not in operation, but that was a particular challenge for sure. But overall I'd say that there's -- between the insurance, the CNSC, and the Province, we have a number of very interested regulatory agencies as well as the insurance providers, of course, who are interested in the fire protection measures at site.

**MEMBER BERUBE:** Maybe if I could ask the CNSC with regard to fire, I mean, if there is a fire in one of the facilities, say, is there a chance of a radiological hazard being present in one of those facilities, maybe the transport slurry facility transfer? I'm not sure what that would be. CNSC, do you have any comment on inspection you've done on that to validate that that would be okay?

**MS. MURTHY:** Kavita Murthy, for the record.

On the aspect of radiological hazards from an emergency or a fire situation, I would like to ask Mr. John McManus to provide a response. And if you would like to hear from our fire response team specialists, they're also online so they can go on after that.



Go ahead, John.

**MR. McMANUS:** John McManus, for the record.

I'm not the best person to speak to fire safety and fire response. I would refer that to another colleague.

**MS. MURTHY:** Kavita Murthy, for the record.

So I believe, Dr. Berube, your question was about our assessment of the radiological risks. Just give us a second. We'll find you the right person.

Okay, Kavita Murthy, for the record.

Thank you, so I see that William Stewart is on standby to speak to it, so please go ahead, William.

**MR. STEWART:** William Stewart.

So with respect to fire protection and emergency response, we actually just recently completed a remote inspection for fire protection and emergency response to assess the documentation related to the facility to make sure that they continue to have all the processes in place, continue to do their inspections, continue to make sure that their staff is fully trained and responsible.

With respect to fires of radioactive material, for radioactive material at Cigar Lake, you're

generally speaking with respect to ore, rock. So the combustion of rock is not a factor that is going to be a concern for most of the -- for burning consideration.

There are some aspects of nuclear devices on site. Again, those are all fire-rated, and all staff on site who are involved in maintenance or using those devices are trained on what to do if there's a fire and how they have to deal with this.

If you need comment beyond that particular aspect of the risk of radioactive material in a fire, James Eduful is available to comment.

**MEMBER BERUBE:** Yeah, I'm more concerned about is there a possibility that structure would be damaged enough that, say, a slurry tank would be ruptured and this could become a problem or something of this nature.

**MR. STEWART:** Thank you. I'll just quickly respond and then -- I'll just step in there.

So with respect to the facility, all the facilities are designed so that they can contain the spill of a slurry tank or a process area within the facility, so within their secondary containment. So they're designed to capture that in the case of a catastrophic failure, and again, most of the storage of the slurry being underground.

And then the other consideration is the

totes themselves that take the material to McClean Lake. They've also gone through their review in terms of risk assessment for impact drop tests, all those technical assessments that are required on the totes themselves. So I believe that aspect is covered under the containment of hazardous goods in general.

**THE PRESIDENT:** You're good, Dr. Berube?  
Dr. McKinnon?

**MEMBER MCKINNON:** Thank you. I would like to ask some questions about the licensing period. So my questions will be to Cameco and we did pitch on the life of mine aspect a little bit yesterday. And some of the intervenors are really concerned about the licensing period I think in connection with communication and issues similar to that.

But in terms of the mining and the process that you will be undertaking as a more or less continuous basis, that's the vein that I want to approach this.

So the current estimate for the life of mine, I'm wondering, is that based on the published mineral reserves for which you have done the economic assessments and the mine layouts and so on? So what exactly is included in that? And how does that compare to the extent of the known resources? And I understand that you can't make the forward-looking statements and so on.

**MR. MOONEY:** I won't lead with that, then. But I would say that our environmental assessments were for the life of mine of the Cigar Lake orebody. And the ecological risk assessments that supported that and also have been updated also speak to that.

I will defer to the QP on the phone to talk to you a little bit about the NI 43-101 and reserves and resources because he is much better suited to do that than myself.

**MEMBER MCKINNON:** Thank you.

**MR. ROWSON:** Thank you, Liam.

Lloyd Rowson, for the record.

I'll pick up where Liam left off there. So in terms of ecological risk assessments, that would be considered what we generally refer to as the Cigar Lake orebody, which is the entire known extents of our resource base.

Now, our life of mine plan that's published until 2029 only contemplates a portion of that resource base that we include in our published proven and probable reserves. And that is what takes us to 2029.

So the mine plan does not contemplate the full known extent of mineralization because the full known extent of mineralization has not yet be subject to detailed enough exploration and also the technical modifying factors

and evaluation that's required to convert those resources into reserves.

The numbers are on record what is available in our currently indicated and level of resources -- inferred, indicated, and measured levels of resources are published and without -- with a risk of saying a slightly wrong number, I'll say there's roughly 90 million pounds still in that resource category that is not proven and has not demonstrated financial or economic -- and economically viable to the extent required to declare them as a reserve. So I hope that helps.

**MEMBER MCKINNON:** Yes, that's very helpful. Thank you very much. Yes. Perfect.

**THE PRESIDENT:** Dr. Berube?

**MEMBER BERUBE:** I want to touch on security, because it's one of my favourite questions and I have to talk about it.

The security on site -- obviously speak about that in a generic sense because it's declassified briefing session. Just give me a general sense of how you maintain site security in terms of for your staff and just in general give me a sense of what you're doing and how you're doing it without getting into specifics.

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

Maybe I will ask Trent Hamilton to talk about that. I think that was one of the things that we had a fair bit of work to do when it came to COVID and the pandemic and working with the contractor that we have that provides us those security services. So Trent can describe what it is.

I think on a broader piece, I would also highlight that we do threat risk and vulnerability assessments for all of our facilities on a regular return rate. And they help us look at, you know, the remote mining operation, right, fly in, fly out, and a road that doesn't beyond Cigar Lake technically. But nevertheless, it's a workable exercise just as far as identifying, you know, where we may have some opportunities for improvement and making sure that we're consistent in our approach to security across our mining sites.

It looks quite a bit different than it does at our Port Hope Conversion Facility, where it's situated in a town and, you know, a much different access discussion there.

So maybe, Trent, just to talk briefly about what our security looks like on site.

**MR. HAMILTON:** Trent Hamilton, for the record. Thanks, Liam.

Liam talked about the threat risk and

vulnerability assessments that are routinely happening, and those are obviously very important to our understanding of where we may have some deficiencies.

We've also talked about the flights and the remote nature of the site. That creates some challenges, but it also gives us a bit of a benefit on the security side. All of the people coming onto site are manifested on flights, so there's an approval process to get onto a flight and then onto the facility.

In terms of driving onto site, there is one road accessing Cigar Lake. And that has a gate across it and is staffed routinely -- well, all the time. And you need, again, permission to get on the facility through that gatehouse.

So those are really the two main things from a security perspective is the flight manifest and the gatehouse for access.

**MR. MOONEY:** I think the summary there is that they are considered low-risk operations because of their remote locations. And we haven't had theft or sabotage or anything like that.

So in the grand scheme of things, the other piece I think is a strength is long-term employees, that folks are known to us. And as Trent said, the access is through charter aircraft and that helps us with that for

sure.

So I think the -- we heard about Athabasca Basin Security yesterday, and in Geoff Gay's presentation, they're a contractor that is used to man the gatehouse, as Trent indicated. And that's, you know, one of those opportunities. And I think Geoff also mentioned in his presentation that that business they've taken elsewhere in the province. So one of those legacy circumstances where they got a good deal of experience at a uranium mine and mill site where expectations are fairly high and have been able to take that elsewhere in the province.

**THE PRESIDENT:** I'll see if CNSC staff would like to add anything to this around security at the facility.

**MS. MURTHY:** Kavita Murthy, for the record.

So we have Dr. Ali El-Jabi as well as security advisor LeeZa Duval available to respond to questions about security. This is a low security site, internal low-risk site in terms of security for some of the reasons you've heard. But I will let LeeZa go ahead, please.

**MS DUVAL:** LeeZa Duval, for the record, security advisor with the Nuclear Security Division.

I will confirm it is considered a low-risk



site. And in terms of security, Cigar Lake was required to submit a site security plan which describes its security measures and that was assessed in November 2020 and it was satisfactory.

**THE PRESIDENT:** Thank you. Thanks for that.

So let me approach another area that we spent a fair bit of time on for other nuclear facilities, and it's around fitness for service, it's around reliability, it's around maintenance backlogs, et cetera.

And I know, Cameco, in your written submission or even yesterday you did touch on the fitness for service for the jet boring system. And in your written submission there is some reference to the ratio of preventative and corrective maintenance, and I can't remember the appropriate terms.

But can you share with us again at a very high level on the reliability of your systems and are there any challenges particularly with the shutdowns that you've had to have undertaken?

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

Andy Thorne, our VP of Mining, has been really focused in this area across -- he brought over his experience with other mining operations in Timmins, he

brought that to fuel services and then brought it here. And I can say that that's been a story where there's been a lot of work done and increased performance. We sit through annual management reviews for all of our operating sites and learn how they're doing in relation to those reliability metrics.

But maybe Lloyd is better positioned to talk about how Cigar Lake does preventative maintenance and whether there were any particular challenges with the shutdown and start-ups that we've seen over the pandemic.

**MR. ROWSON:** Thank you, Liam.

Lloyd Rowson, for the record.

Asset management and reliability has been a central focus for Cameco for a number of years now. We have created a centralized community of excellence, a community of practice where we're sharing best practices amongst our sites, and we are defining asset management strategies for each type of asset, assigning them to the asset, and then measuring their performance continually.

That has been the marry of both -- we started I think good and we're moving towards great, as we like to say.

In terms of our core assets, the assets that relate to the production of ore slurry, we have seen excellent reliability. We have proactively identified

sometimes we call them "problem children," areas of the circuit that are more costly to maintain is usually the trigger. And we've taken corrective actions to fix them.

Assets that run well are not only lower cost, but as you are aware they're also safer for our employees. They can help us manage radiological risks. If you have to maintain them less, you have to be close to them less and your annual dose could be lower. So we do make that a central pillar of our operation.

And with respect to restart following our two COVID outages, I am pleased to say that we did do -- as part of our restart plan, we did do a review. In the fall, we did effectively a maintenance shutdown immediately prior to restarting the circuits to ensure that all circuits were prepared and ready and nothing untoward had happened while we were in our shutdown. We confirmed that they were working and when we started we really did experience very minor issues, nothing of note.

And that has been also the current experience in our restart here, kind of a live story, right, we're restarting right now in April as we speak, and it's going well.

**THE PRESIDENT:** Thank you. Dr. McKinnon?

**MEMBER MCKINNON:** Yes, I'd like to ask a question to CNSC staff in the area of change management.

And I'm wondering if this would extend to include changes to the mining plans, because as we've heard, you know, mining is a very dynamic environment and, you know, it's not predictable like a factory would be, and so changes would be a natural part of the process.

So how does the category of change management and reporting account for this natural variability? Or is it relevant to this case? How is that managed?

**MS. MURTHY:** Kavita Murthy, for the record.

So several aspects -- change management comes into several aspects of our safety and control area framework, one being the management systems where we have a requirement for programs to manage change, track and report on deviations. The other one --  
--- Off record discussion / Discussion officieuse

**MS. MURTHY:** Kavita Murthy, for the record.

So as I was saying, it comes within the management system safety and control area and also within other safety and control areas like physical design and fitness for service, where we need for licensees to have a design governance program. So aspects of change management are also reviewed during inspections.

So with that, I will ask William Stewart to start the question and then hand off to our management system specialist. Thank you.

**MR. STEWART:** Thank you. William Stewart.

So as Kavita said, we do look at the change management system --

**THE PRESIDENT:** Mr. Stewart, I think there's something wrong with your microphone.

**MR. STEWART:** Okay, I will pass it over to Gabe, then, our management system specialist, while I fix my mic.

**MR. GIOBBE:** So it's Gabriele Giobbe, management system specialist, for the record.

So I'm just going to go through the change management or the change control process at Cigar Lake. And then if there's additional questions, we can go down further into the weeds.

So let me start off by saying that Cameco Cigar Lake does have a documented and implemented management system that is compliant to the requirement as outlined in Cigar Lake's *Licence Conditions Handbook*. Additionally, Cameco does have a change control process in place. The program is designed to ensure that changes to products or systems are introduced in a controlled and coordinated manner.

The purpose of the change control is to identify, evaluate, and control the risks associated with the change. Managing change and design ensures that the proposed changes to facilities are subject to the proper review and approval before implementation.

CNSC staff performed on-site inspections during the licensing period to review the Cigar Lake change control process in 2016, 2017, and in 2018. Cameco Cigar Lake does have a documented and implemented change control process which meets CNSC requirements.

Thank you.

**MS. MURTHY:** William, are you back on? Would you like to go ahead?

**MR. STEWART:** Actually I think a lot of that was covered effectively in Mr. Giobbe's response. Obviously you can hear me now; I cut my video. I just wanted to mention that the licence condition notification G2 in the *Licence Condition Handbook* also addresses how changes are captured between the licensee and regulatory authority. And that is on page 216 of the PDF of staff CMD.

**MS. MURTHY:** Thank you, William.

Kavita Murthy, for the record.

So if you did not hear all of it, then we will send you -- just want to confirm that it was clear to

everyone that ...

**THE PRESIDENT:** Dr. McKinnon, do you have any follow-up questions?

**MEMBER MCKINNON:** The intent of my question is really to try and establish where the bar was for reporting requirements in connection with any changes, given the fact that a mine is a highly variable environment. So on one hand, it could become very burdensome if every change was reported. But there has to be a reporting of -- I'm gathering from what I have heard that this would mainly refer to major changes, not to those that would occur due to the natural variability that is encountered at the mine. Would that be a correct assessment?

**MS. MURTHY:** Kavita Murthy, for the record.

Yes, that is correct. So we have tiers of documents in the *Licence Condition Handbook*, some that require prior approval of the CNSC before they can be implemented, and others which are supplied to us as notifications. So this is where we kind of draw the bar between where we need to approve certain changes and where those changes are acceptable but as long as they are obviously within the licensing basis and don't violate a safety case for the licensee to undertake under their

management system which allows for them to have all the control processes in place to make sure that the changes are safe.

**MEMBER MCKINNON:** Okay, thank you very much. That's very helpful.

**THE PRESIDENT:** Dr. Berube?

**MEMBER BERUBE:** So one of the questions that needs to be asked is has to do with packaging and transportation SCA. In particular, could you run me through the taking of the slurry from the slurry tanks underground into the transportation package -- run me through that procedure and safety check before you hit the road, how long that distance is and what your safety record has been while transporting slurry to Orano site to processing?

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

I'm going to ask Lloyd Rowson to describe the process, as you said. But during the current licence term, we had four incidents and they were all minor in nature and they were investigated and corrective actions implemented.

Those instances are reported to the CNSC under the packaging and transport regulations, and the CNSC inspectors like Mr. Stewart follow up in relation to seeing



the corrective actions that might be implemented.

So overall, a very strong performance in relation to transporting for slurry, but I'll let Lloyd describe the root of why that is with the controls we have in place before the material goes into the type IP-2 containers.

**MR. ROWSON:** Thank you. Lloyd Rowson, for the record.

Our ore at Cigar Lake combined with the water, it's ground to a fine slurry and is stored on surface in holding tanks we call chukkas. And when -- come time to transport them to McClean, those chukkas are mixed together in our mixing tank. The percent solids is adjusted as well to optimize them for transport. We want to ship as little water as we can. And then we load them into these IP-2 containers that Liam was mentioning.

So the -- important for us is to make sure that no slurry is spilled or any issue of contamination on the outside, so there are a number of checks and balances in place that we do on those slurry vessels prior to letting them leave our building. And that includes visual checks. We do swabs and a radiological assessment of the outside of the container to make sure that in the filling process there was no spill or anything that could cause contamination on the exterior of the tank.

And of course, we have numerous design features in our ore loadout and ore offload facilities at Cigar Lake and McClean Lake that really fundamentally minimize the chance of any kind of exterior contamination that we're concerned about.

**MEMBER BERUBE:** The distance from Cigar Lake to Orano's facility is -- what is it? That's 100 kilometres?

**MR. ROWSON:** Yeah. For the record, Lloyd Rowson.

It's 70 kilometres. I apologize for missing that part of the question.

**MEMBER BERUBE:** What's your safety record on that transport leg?

**MR. MOONEY:** Duelling banjos there.

I was going to say, we have a very strong safety record. There were four reportable events and, for the most part, it related to visible contamination around the loading and corrective actions were put in place, and they have been implemented.

And overall, I think we've demonstrated that we are able to do that safely and move the slurry to our partners at Orano for processing and it's been a success story, I would say, for both the McArthur River operation. We had quite a bit of experience moving slurry

totes from McArthur to Key before we started operating the Cigar Lake mine, so a lot of those practices and protocols we were able to implement them at Cigar Lake given the 14, 15 years that we had been shipping ore safely -- slurry, pardon me, from McArthur to Key Lake.

**MEMBER BERUBE:** And just to CNSC, you validated the corrective actions post the incidents and you're satisfied that that -- they've been corrected and everything is safe and secure as possible?

**MS MURTHY:** Kavita Murthy, for the record.

I hope William can speak to this, but I see from the -- from our chats that he has confirmed that we have inspected it. And I also Eric Lemoine from the Transport Licensing and Strategic Support Division, who's online.

So Eric, if you will, please go ahead.

**MR. LEMOINE:** Sure, thanks, Kavita.

My name's Eric Lemoine. I'm the Director of Transport Licensing and Strategic Support.

So I don't have a lot to add, really. Just confirming that, you know, the transport events that were discussed in the CMD have been reported to the CNSC in a timely manner and in accordance with the regulatory requirements.

CNSC Staff reviewed the corrective actions

put in place and found them to be satisfactory to ensure safe transport of the material and to prevent reoccurrence.

**THE PRESIDENT:** I have a question for CNSC Staff.

Can you summarize for us how you have been able to carry out your oversight of the Cigar Lake Operation during the pandemic? And looking ahead, what changes do you envisage?

And then I'll ask Cameco to comment on their experience with the -- with this oversight.

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

Peter Fundarek is the Regulatory Program Director and has been instrumental in putting together, along with his inspectors, a COVID response to the inspections to continue our regulatory oversight. I would like to hand this off to him and then he can have others speak to it.

Go ahead.

**MR. FUNDAREK:** Peter Fundarek, for the record, Director of the Uranium Mines and Mills Division.

So following the declaration of the pandemic in March of 2020, there was a period of time where we took a few -- a bit of time to regroup and identify how we could continue to have effective regulatory oversight

for these areas over all the different mine sites in Saskatchewan.

Part of our job was eased a bit because all the mine sites did shut down in response to the pandemic, so there was no ongoing work at the time, but we still needed to exercise our regulatory oversight and maintain our inspection plans as outlined in our overall plan for the -- sorry, for last fiscal year.

So what we did is we pivoted to the use of remote inspections because that minimized the need for staff to go on site, but it still allowed us to engage with specialists from Ottawa. And using our specialists in -- our inspectors in Saskatoon, they were able to continue to do inspections on a remote basis as effectively as if they were on site.

It's not quite as effective because there are still a lot of opportunities for subtle interactions with staff and you can talk to people a little bit more freely when you're walking around with them and things like that, but it is a best method that has been identified and it is very useful.

We have been able to identify small items of non-compliance through photos and videos that the licensees have provided to us. It's provided us a better opportunity to conduct a desktop review of documentation

and now our specialists even more fully engaged on that.

We're also more productive because we don't lose time on travel to the site and back.

This is going to remain as a component of our inspection process going forward. We would like to obviously resume on-site inspections when the opportunity presents itself when it's considered safe and effective to do so, safe for both the on-site personnel and for our own personnel.

So we will be following federal health guidance in terms of when it'll be safe to return to on-site inspections, but a component will still remain of remote inspections because they have proven to be very effective and an excellent way to maintain our regulatory oversight.

So they will continue to remain.

**THE PRESIDENT:** Thank you very much, Mr. Fundarek.

Cameco, what's your experience been on the CNSC's oversight?

**MR. MOONEY:** Thanks for that question.

I think that Mr. Fundarek covered it quite well. I think that lessons learned from that sitting with the various site representatives have been that it does require a fair bit more work up front to get the materials,

get the documents arranged and get them ready for review to form the basis of the inspection, but overall, I think that it was a positive experience.

And I think that when you look at it from the context, the way Mr. Fundarek characterized it, it's, you know, another tool that can be used. Not having to travel up to site, you know, that helps pull down our risks, but I think the -- you know, it required a fair bit of investment of time from site to taking photos, and that was good.

You know, the other reality is, is we find ourselves in -- for northern Saskatchewan, flights sometimes don't go as planned, so you know, taking those out of the equation and having people do some of that work remotely, virtually, as it's been described, is really good just as far as taking that risk as far as flight delays or cancellations and that sort of thing.

So the scheduled work can take place when it's supposed to, and I think that, again, it's maybe not our preferred for doing it all. You know, we have our own audit group and I get their feedback, too, because COVID presented some challenges.

And we did -- we did conduct a few virtual audits and I talked about the safety culture audit -- sorry, assessment that we did that we did virtually

recently and, you know, we're continuing to refine our process there and understand it. For sure the feedback would be the preference would be to be there in person, at least for part of it. Maybe not as long as historically had been the case, maybe more for confirmation.

Some things are more difficult to -- you know, from -- to see over a camera or a video feed, so you know, there are -- it's got some benefits, but it also has some challenges that I think over time will get better and I think that for ourselves, for our own audit model, we'll be looking at using that virtual one much more readily.

And I can safely say for the safety culture assessments that we have planned for our other facilities in 2021, the virtual component will be -- will form part of that.

**THE PRESIDENT:** Thank you for that.

Dr. McKinnon.

**MEMBER MCKINNON:** Yes, I have a question.

I was looking at the agenda and noticed that there are some government department experts available. I was wondering if the chief mines inspector from the Saskatchewan Ministry of Labour Relations and Workplace Safety would be available.

**MR. KASKIN:** Mike Kaskin, Chief Mine Inspector, Province of Saskatchewan.



**MEMBER MCKINNON:** Okay. Thank you.

Based on the periodic inspections that would be done at the Cigar Lake mine, I was wondering if you could provide any (stream lost / diffusion perdue) mine safety practice, including the area of ground control, or any other comments you may have for us?

**MR. KASKIN:** Okay. Generally speaking, Cigar Lake does a very good in this regard, in regards to their peers in the industry, in regards to the practices that they undertake.

Their safety record is one of the best in the province and, in fact, is one of the best in Canada because they were just awarded the John T. Ryan Safety Award again. So in general, they hit the mark.

We have been continuing, even through COVID, to inspect Cigar Lake, both virtually and in person, because part of the reason we want to go in person is that gives us an opportunity to get some insight into the cultural -- safety culture of the -- of the mine as we see the internal responsibility system and how it's working, not only how we interact with management, how we interact with labour and how labour interacts with management at the mine site because that gives us some very good indications on what the culture is at Cameco.

And we see that as a very good culture.

We receive minimal complaints from the workforce at Cigar Lake concerning issues that aren't resolved at the actual mine site.

**MEMBER MCKINNON:** Okay. How often would you do inspections, and are they planned or random, unannounced? Could you describe how you go about them?

**MR. KASKIN:** Well, it's difficult to do an unannounced inspection on a fly-in operation. But we try at least once a year to drive up there.

But we typically are up there when they're operating probably every four to six weeks, outside eight weeks. During COVID, it was a little bit less than that because they were shut down.

We still touched base with the occupational health and safety committees on a regular basis.

So overall, we probably touch base with the mine site eight -- eight times a year.

**MEMBER MCKINNON:** Frequent.

**MR. KASKIN:** It's pretty frequent.

**MEMBER MCKINNON:** Yeah.

**MR. KASKIN:** And for the most part, the occupational health committees, both employer and worker reps, have us on speed dial.

**MEMBER MCKINNON:** Okay. That's very

helpful. Thank you very much for your comments.

**THE PRESIDENT:** Thank you.

Well, I'd like to take this opportunity to maybe invite the other governmental departments that are here. We may not have any specific questions for you, but if there is any feedback that you would like to give to the Commission about Cigar Lake operations, its safety and activities.

And maybe I'll start with the Saskatchewan Ministry of Environment.

**MR. MOULDING:** For the record, Tim Moulding, Saskatchewan Ministry of Environment.

I'll echo the CNSC Staff's comments and the counterpart with Labour there that Cameco's Cigar Lake operation's environmental performance is definitely top quartile of the operations that we look after in Saskatchewan, has continued as such as well.

Performance is good, risks are well managed at site.

We also had the opportunity this past year with the pandemic to conduct remote inspection of the facility as well, and I'd just like to point out that what really makes those remote inspections work is the diligent efforts of the site personnel to gather that information up and the relationships that we've built with the people that

we work with, with Cameco, definitely help in regards to being able to have the dialogue that's necessary to understand what the -- what the issues are on site so that they can be properly identified. And if there's any actions required to follow up, they're quite diligent looking after that as well.

Thank you.

**THE PRESIDENT:** Thank you, Mr. Moulding.

And then from the Saskatchewan Ministry of Energy and Resources, any issues, concerns, feedback you'd like to share?

Do we have anyone online?

Okay. Not seeing anyone.

Is Dr. Irvine with us still? I know he was here earlier.

Okay. I don't see him, either.

How about Environment and Climate Change Canada? Are you here with us?

**MS MURTHY:** Ms Velshi, he is here. He's trying to speak, but he can't get his audio. Sorry.

**THE PRESIDENT:** Okay. No, thank you for that, Ms Murthy.

**DR. IRVINE:** Thank you. Good afternoon. It's James Irvine, Dr. Irvine. I'm a medical health officer consultant with the Saskatchewan Health Authority.

I think the one thing that I would like to add is the proactive approach that Cigar Lake as well as Cameco in general approached dealing with the COVID pandemic.

They had a pandemic plan in place. It had been reviewed in the last couple of years. And before the pandemic was declared and before we had our first case in Canada and certainly weeks before we had the first case in Saskatchewan, they reached out to us to modify, to adapt their pandemic plan.

They put a self-imposed non-essential travel for international travel relatively early in the process. And throughout this last 12, 13 months, we've had a lot of engagement, a lot of cooperation back and forth between Saskatchewan Health Authority and the industry itself.

So I really want to compliment them on the work they had done with being proactive as well as modifying things throughout the year to -- as we learned more and more about the virus itself and what mitigations were available and what technologies assisted us in mitigating things.

They were very interested in moving forward on those, so thanks very much for that.

**THE PRESIDENT:** And thank you for that,

Dr. Irvine.

I guess and I hope work has started on how to make the communities more resilient to any future pandemics. Any comment on that?

**DR. IRVINE:** Yeah, I think this will be an ongoing thing across the country, throughout the province and across the north.

I think we'll all learn in terms of what has worked well and what things could be better.

Cameco as well as Orano worked closely with the communities and modified their plans or operations based on feedback from the communities, and I suspect and would certainly encourage sort of as we all go into that evaluation in terms of, you know, what has worked well, what has -- could be improved, but that'll be a real engagement of partners.

It'll be communities, it'll be government agencies, it'll be industry that'll be looking at that in general as it will be across the country.

**THE PRESIDENT:** Thank you.

Mr. Mooney.

**MR. MOONEY:** Thank you. I appreciate your comments, Dr. Irvine. They mean a lot coming from you.

We also wanted to say that we were really grateful for the level of engagement we had from Dr.

Irvine's colleagues, Dr. Zayed and Dr. Khaketla. They were instrumental in helping us understand how best to respond and, you know, when -- there were many calls on Saturday nights, Sunday mornings trying to understand things and make sure that we were doing what was necessary and they made themselves accessible in dealing with, you know, the broader issue.

Northern Saskatchewan had a really tough time for a number of months and, you know, we were very grateful for their insight and their involvement and their support.

**THE PRESIDENT:** Thank you.

And I see Ms Ali is there from Environment and Climate Change Canada.

Ms Ali, any concerns, any comments you'd like to make around this relicensing application?

**MS ALI:** Yeah, I have a couple of comments. Nardia Ali, Environment and Climate Change Canada, for the record.

So first of all, I want to like also say, as CNSC and the Saskatchewan Environment Ministry said, that Cameco is in compliance with all our regulatory limits, including the ones discussed at the hearing, like selenium, arsenic, uranium or molybdenum. The effluent concentrations are well below the metal and diamond mining

effluent regs, CNSC limits and the Saskatchewan limits.

Also, as part of the requirements under the metal diamond -- the *MDMER* -- let me just go with that -- they do an environmental effects monitoring study in the receiving environment. And we looked at the last one, and a couple of points of note is that there was some water quality monitoring in that and it showed that concentrations for selenium, arsenic, uranium and molybdenum were -- they were present in both the reference and exposure areas and were below lowest effect levels, which show very low potential for impact on benthic invertebrates.

Another part of the study that's interesting is that they did selenium in fish tissue in large-bodied fish, and there were no differences between reference and exposure areas for the northern pike and lake whitefish muscle, so I thought that was useful information for the Commission to have. And that the levels that were seen were quite low and below concentrations likely to have effects on the fish population.

So in another area of our mandate, I just wanted to inform I guess people that the Canadian Wildlife Service published an updated amended recovery strategy for woodland caribou, the boreal population in Canada. This identifies critical habitat in northern Saskatchewan; it



updates population and habitat condition; it replaces the 2012 recovery strategy.

So Cigar Lake does not occur in the range for the SK1 boreal, but it does -- like a lot of the measures that will be taken in the strategy will have positive impact on the barren-ground caribou, which is a subpopulation of woodland caribou that was mentioned yesterday by English River First Nation.

So that report is available on the site and the overall conclusion is that the population is self-sustaining but needs to have a perpetual state of 65 percent undisturbed habitat. So there's a limit of five percent habitat disruption allowed for anthropogenic developments.

So that's it. I just wanted to share that.

**THE PRESIDENT:** Thank you very much for doing so.

And lastly, the Ministry of Government Relations. Is Mr. Scott Boyes with us?

**MR. BOYES:** Yes, thank you very much, Madam Chair. And I appreciate the opportunity to speak briefly on behalf of Government Relations. For the record, this is Scott Boyes.

Our role is on the side of community

engagement and relationship building. And I will say very briefly, you know, Cameco's role as a good corporate citizen is taken very seriously, and they've put significant effort into building that and maintaining that. And they've continued to do that through the pandemic, which has challenged everybody in ways, some anticipated and some not.

Cameco is very much, I think you've sensed from the other interventions, very much a known entity, you know, within the North. And Cameco and Orano, to their credit, continue to be proactive in reaching out to communities and reaching out to government to engage communities as well. So certainly, you know, we appreciate their efforts there.

I will also echo Dr. Irvine's observation about specific pandemic management efforts by both of those corporations. You know, the work camp environment is certainly a risk during a pandemic. And the virus has managed to touch everywhere in Saskatchewan. But I will say that, you know, in the case of Cigar Lake I think that risk was very well managed and I think Northerners in general appreciate the actions that were taken. You know, the impacts on employment, for instance, are regrettable, but everybody I think understands how necessary they were.

So my thanks to the corporations and you.

**THE PRESIDENT:** Thank you for sharing that with us.

Dr. Berube, a final question?

**MEMBER BERUBE:** Question is for CNSC staff. If you could please tell me what the state of the financial guarantee is today?

**MS MURTHY:** Kavita Murthy, for the record. I believe we have Milena Kostova available. I'm just going to check.

Okay, I see that Peter Fundarek is going to respond to that question.

Please go ahead, Peter.

**MR. FUNDAREK:** Peter Fundarek, for the record.

So the financial guarantees, after the Commission decision in November of 2020, Cameco was provided with 90 days to submit financial instruments to cover the financial guarantees. And the Cigar Lake site is a joint ownership, it's a joint venture between Cameco, Orano, Idemitsu, and TEPCO. And so Cameco and the two minority partners have submitted letters of credit as had been expected.

In contrast, however, Orano has submitted surety bonds for their portion of the 37 per cent of their financial guarantee that was required for them. Surety

bonds are acceptable financial instruments to the Canadian Nuclear Safety Commission under G-206 and its successor document, REGDOC-3.3.1.

And both those, the letters of credit and the surety bonds, have been reviewed and accepted by the Saskatchewan Ministry of the Environment, who are the beneficiaries of the financial guarantees in this case for any facilities in Saskatchewan.

And Mr. Tim Moulding is here, and he can speak to the review carried out by the Province of Saskatchewan.

**THE PRESIDENT:** Dr. Berube, would you like Mr. Moulding to give you a synopsis of that review?

**MEMBER BERUBE:** Yeah, if he could, please, if he's available.

**MR. MOULDING:** Sure. Tim Moulding, for the record, Saskatchewan Ministry of Environment.

Yeah, our ministry also conducted a review of the latest update to the decommissioning and reclamation plan and cost estimates and concurred with the CNSC staff that the amount that was provided was adequate.

And I can confirm that the Cigar Lake operation is fully up to date with the submission of the financial assurance instruments for the agreed-to amount.

**THE PRESIDENT:** Thank you, Mr. Moulding.

Dr. McKinnon, your last question, please?

**MEMBER MCKINNON:** Okay, thank you. I would like to direct this to CNSC staff and it's in connection with the hydrogeology of the orebody, the large scale.

Because it was mentioned that the orebody was really only discovered through geophysical methods and there was no surface contamination, which is quite remarkable, considering how rich the orebody is. So I was wondering, is it understood why there is no connection between the hydrology, the ground water around that orebody and how did it communicate with surface? And especially is there any risk that mining could change that condition and lead to any communication of contaminated waters to the surface water regime?

**MS MURTHY:** Kavita Murthy, for the record.

So I will pass this question to the Environmental Risk Assessment Division with the response starting with Dr. Dagher. Please go ahead, Elias.

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

I will pass this question on to CNSC's hydrogeologist, Dr. Quinn Zheng

**DR. ZHENG:** Dr. Quinn Zheng, geoscience assessment officer with the CNSC.

I'm a hydrogeologist, and after a review of the hydrogeological conditions near the Athabasca Basin with a top about 400 is the sandstone, and below about 400 or 500 metres sandstone is the bedrock. And the ore deposit is mainly located in around the interface between the sandstone and the bedrock.

And based on the current understanding, the hydraulic conductivity -- the permeability of the orebody is pretty low. And it's surrounded by clay. The clay is altered surrounding material around the orebody. That's why the communication between the water and the orebody and the surrounding ground water is not that much.

And during the mining and the -- the mining activity could increase the communication between the surrounding ore -- the ground water from the surrounding -- in the area enter the mining ground tunnels, but usually ground water inflow into the underground tunnels they'll be pumped to the ground surface through the dewatering systems and treated before discharged into the environment. Therefore, the impact due to the mining activity to the environment, particularly to the surface water, is a minimum. It's very minor and it's part of our risk assessment is -- based on our environmental risk assessment, the environment, the surface water, the ground water is protected. Thank you.

**THE PRESIDENT:** Thank you. Thank you for that.

Cameco, did you want to add anything to that?

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

I think that in that regard, we've got the sediment data that shows that they're consistent with the background level. And in the grand scheme of things, we have frozen ground water going to the mine as was described by CNSC staff, and then it would be treated.

In relation to the monitoring data that we have, we're really looking at the surface and sediment data that's consistent with the historical trend. There's no observable trend in that regard, so it's safe to say that there are no impacts to surface water bodies related to the orebody itself or to the mining activities at depth.

**THE PRESIDENT:** Okay, thank you.

Maybe I'll turn to staff now and see if, staff, you have any final remarks you'd like to make.

**MS MURTHY:** Thank you. Thank you very much, Ms Velshi and Members of the Commission. My name is Kavita Murthy, for the record.

I will pass this opportunity to speak to Mr. Peter Fundarek, who is the Regulatory Program Division

director under whom this file is managed.

I would like to say one thing, though. This is the last Commission hearing for the Dr. Barbara Dowsley, who has worked at CNSC for 12 years in the Environmental Protection Group. And I would like to acknowledge her work and her support on these files and wish her well.

And with that, I would like to hand off to Peter. Please go ahead, Peter.

**MR. FUNDAREK:** Thank you. Peter Fundarek, for the record.

And I would like to echo Ms Murthy's commendation for Dr. Barbara Dowsley for all of her work and her support over the years. It has been greatly appreciated and greatly valued.

In the past two days, CNSC staff have presented a solid case for the relicensing of the Cigar Lake site operated by Cameco. We've demonstrated through comprehensive regulatory review of the site that Cameco has performed well in terms of its performance according to its regulations and the licence requirements, and it's also performed well in terms of the assessment that we've provided of their application for the next licensing period.

The licensing period that we are



recommending is 10 years, and it's consistent with other nuclear facilities that have been licensed by the CNSC over the past while, including the McClean Lake site that was relicensed in 2017 for 10 years.

The term of the licence does not affect the regulatory oversight that we conduct over any site, so it doesn't affect the safety case. We continue to have a comprehensive regulatory oversight role on all facilities irrespective of their licence term.

We've heard a lot from intervenors yesterday and today. We heard some very interesting things.

We heard from the English River First Nation talking about how information is available but that it's not available in a form that they can understand or readily be understood, and this contributes to their lack of trust.

And we've heard from the Métis Nation of Saskatchewan today talking about an engagement shortfall, as they talked about.

So we're, as you indicated yesterday, President Velshi, we are on a journey and we are going to continue on this journey. We are going to continue to provide outreach. We're going to continue to provide more outreach. We're going to seek further opportunities to

help become the trusted regulator that we are capable of becoming and so that people across Canada can understand that we're doing our role to preserve their health and safety and protect the environment and that it remains safe for the operations that have been licensed by the Commission.

So we are going to reach out to English River separately to talk to them specifically about the concerns that they've raised. And we are going to continue our program of outreach to other groups, including Métis Nation of Saskatchewan and Ya'thi Néné Lands and Resource Office, and engage them -- continue to engage them and continue the dialogue and continue the conversation, listen to their concerns, and provide them with the information in a form that they feel is best-suited to their needs so that they can then assure their community members and their representatives of the safety of these operations.

As I've said, CNSC staff will continue to conduct its regulatory oversight into the future with whatever term that the Commission does decide, should the Commission decide to renew the licence for the Cigar Lake operation.

Thank you.

**THE PRESIDENT:** Thank you.

So before concluding the hearing, I will

ask Cameco Corporation if they have any final remarks they'd like to make.

Mr. Mooney?

**MR. MOONEY:** Yes, thank you. I'll try to be brief, but I wanted to start by thanking you, Madam President and the Commission Members, for a very well-run and helpful process. I consider myself a somewhat seasoned veteran of regulatory proceedings, and despite the technical challenges that many including myself faced, it was a good process, good questions, really appreciate the level of inquiry.

And I think that, you know, in the grand scheme of things, you look through the interventions that were filed, almost all of them were very, very positive.

And you look at the Cigar Lake performance, you know, Lloyd Rowson and his team and under the leadership of Andy Thorne have done a remarkable job, and we really think that that speaks, whether it's under the convention safety, radiological protection, all of the safety control areas, a very strong performance as recognized by staff. It shouldn't come as any surprise. That's why we have those regulatory oversight reports and some visibility with the Commission every year in that regard.

You know, it's a bit trite; we talk about

the COVID pandemic as being unprecedented. That term has been perhaps overused. But it was. And for sure we saw a lot of innovation driven out of that, a lot of flexibility displayed. We talked about virtual inspections and what was done there. You know, a year like no other.

But in any event, we are closing in on being on the other side of it and we will, for sure, ourselves run as Dr. Irvine talked about what worked well, what could be improved, process ourselves because we recognize again from our management system background there's room for improvement for sure.

But I just wanted to close by thanking staff as well. There was an enormous amount of review and back documents that are reviewed and it goes back and forth. And I really think that they did an exemplary job despite the challenges of doing that in COVID.

And similarly on the consultation side, the work that was done by staff but in relation to our own engagement efforts. And you heard a lot from Kristin Cuddington under the supervision of Jonathan Huntington an awful lot has been and continues to be done under the auspices of our collaboration agreements. There was -- I know we tend to focus on the -- in these proceedings on what we haven't done. And we I think at times give too short treatment to what we have done. And what we have

done has -- is a remarkable success story in northern Saskatchewan, one that others try to replicate, frankly. And so in that regard, my hat's off to them.

And then the staff at Cameco who do all the hard work for me to be the hood ornament of these proceedings to some extent. But Kevin Nagy and his crew have worked really hard to get us to this point and get those licensing documents and present a very strong case for the 10-year licence that we think Cameco, based on our performance, have earned. And we hope to see that from the Commission.

And we look forward to reading the decision of the Commission down the road.

Thanks very much.

**THE PRESIDENT:** Okay, thank you. Thank you to Cameco, to CNSC staff, to all the intervenors for your participation.

And Marc, I'll turn it over to you for any closing remarks on this hearing.

**MR. LEBLANC:** Merci, Madame la Présidente.

This brings to a close the public hearing. With respect to this matter, it is proposed that the Commission confer with regards to the information that it has considered and then determine if further information is needed or if the Commission is ready to proceed with a

decision.

We will advise accordingly.

Thank you very much.

I typically end by saying "Safe travels,"  
but that will not be necessary today.

Thank you.

--- Whereupon the hearing concluded at 3:20 p.m. /

L'audience est terminée à 15 h 20