

**Canadian Nuclear  
Safety Commission**

**Commission canadienne de  
sûreté nucléaire**

**Public hearings**

**Audiences publiques**

**October 2<sup>nd</sup>, 2013**

**Le 2 octobre 2013**

Kikinahk Friendship Centre,  
320 Boardman Street,  
La Ronge, Saskatchewan

Kikinahk Friendship Centre  
320, rue Boardman  
La Ronge (Saskatchewan)

**Commission Members present**

**Commissaires présents**

Dr. Michael Binder  
Dr. Moyra McDill  
Dr. Sandy McEwan  
Mr. Dan Tolgyesi  
Dr. Ronald Barriault  
Mr. André Harvey  
Ms. Rumina Velshi

M. Michael Binder  
Mme Moyra McDill  
M. Sandy McEwan  
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M. Ronald Barriault  
M. André Harvey  
Mme Rumina Velshi

**Secretary:**

**Secrétaire:**

Mr. Marc Leblanc

M. Marc Leblanc

**Senior General Counsel:**

**Avocat général principal :**

Mr. Jacques Lavoie

M. Jacques Lavoie

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La Ronge, Saskatchewan

--- Upon commencing at 8:33 a.m./L'audience est débute à 8h33

### **Opening Remarks**

**MR. LEBLANC:** Good morning, Ladies and Gentlemen. Welcome to the continuation of the hearings that are being held by the Canadian Nuclear Safety Commission.

The Commission is about to resume the public hearings on the applications by Cameco for the renewal of the licences for the Key Lake, MacArthur River and Rabbit Lake operations.

I'd like to note, as was the case yesterday, we have simultaneous translation in both Dene and Cree. We also have translation in English and French. Translation devices are available here at the reception area and the Dene is on Channel 7, Cree is on Channel 6. La version en français est au poste 5, and the English version is on Channel 4. I would ask you to please keep the pace of your speech relatively slow, so that the translators have a chance to keep up.

This hearing is being registered as in the

language in which it is being used, obviously, and Dene and Cree will be translated for the transcripts.

I would also like to note that this proceeding is being video webcast live and that the proceeding is also archived on our web site for a three month period after the closure of the hearing and those transcripts will be available in one to two weeks.

To make the transcripts as meaningful as possible, we would ask everyone to identify themselves before speaking. And as a courtesy to others in the room, please silence your cell phones and other electronic devices.

Monsieur Binder, Président et premier dirigeant de la CCSN va présider les audiences publiques aujourd'hui. Mister President.

**THE CHAIRMAN:** Thank you, Marc, and good morning and welcome to the continuation of the public hearing of the Canadian Nuclear Safety Commission.

Mon nom est Michael Binder. Je suis le Président de la Commission Canadienne de Sûreté Nucléaire, and I'd like to welcome everybody who is here today with us and all of you who are joining us through the webcast.

I'd like to begin by introducing the Members of the Commission that are with us today.

On my right is Dr. Moyra McDill, Mr. Dan

Tolgyesi. On my left is Dr. Sandy McEwan, Ms. Rumina Velshi, Dr. Ronald Barriault and Mr. André Harvey.

We've heard from Marc Leblanc, the Commission Secretary and we also have with us here today on the podium, Mr. Jacques Lavoie, Senior General Counsel for the Commission.

We heard the presentation from Cameco and CNSC staff yesterday and I'd like to move now to the intervenors. I'd like to remind everybody that we have allocated 10 minutes for each oral presentation because we all read every single document in detail, and we are very, very anxious to actually get into the dialogue and the discussion as a result of those interventions.

The presentation obviously will deal with the three facilities and some intervenors received some financial support from the Commission and we will allow them a little bit more time, not much more, but a little bit more time to make their presentation so we can get into a little bit more in-depth discussion.

So we had unfinished business from last night and I'd like to dispose of that before we get into today's proceedings. So we had a written submission from a Dr. Dewar, Dale Dewar, so I would like to deal with that particular issue and I'd like a Commissioner, anybody who has any particular question on that particular written

intervention.

**MR. LEBLANC:** Prior to having any question, I'd like to mention that this is in Document CMD-H13.13 and copies of this document are available at the reception desk. Thank you.

**THE CHAIRMAN:** Question? Dr. McDill?

**MEMBER McDILL:** There we go, good morning. Perhaps I could ask staff to comment on this submission, a little bit on the history of exposure to uranium and from the historical basis up to the present, if that's possible, exposures to workers, exposure to community.

**MR. JAMMAL:** Ramzi Jammal, for the record. We have the benefit of Dr. Irvine here who's got the historical aspect. With your permission, I would like to pass the microphone to Dr. Irvine.

**THE CHAIRMAN:** Dr. Irvine?

**DR. IRVINE:** Good morning. Yes, I'm James Irvine. I'm the Medical Health Officer for the three Northern health authorities, so roughly the Northern half of the province and a professor with the College of Medicine at the University of Saskatchewan.

One of our roles over the years has been monitoring health of communities, and so we've been involved with a variety of different health studies as it

relates to health impacts from a variety of different situations, looking at changing health patterns, changing social determinants of health over the years.

Some of the things we've looked at have been ---

**MEMBER McDILL:** Can I interrupt? Just a second -- can the people at the back hear? Because -- no. Maybe we can help them out there, thanks.

**DR. IRVINE:** So in terms of the types of things that we look at would be potential impacts from a variety of different changing social circumstances, environmental circumstances, changing patterns of health behaviours and living circumstances. And so the -- we would be looking more in terms of some of the downstream health effects from different environmental conditions as well as social circumstances.

The types of things that we would be monitoring would be some of the things that Dr. Dewar had talked about, certainly for cancer, congenital anomalies. We look at a variety of other circumstances too that would not have anything to do with uranium mining particularly, but from a broad health effects -- I think everything from communicable diseases, infectious diseases, chronic diseases.

We started in the 1990s looking at baseline



studies at that time. So from our cancer studies started in about 1967 and the work done in the 90s was shared with the Federal Provincial Panel on Uranium Development at the time.

And we had a group of Northern leaders involved with a research and development committee that spearheaded a lot of those studies. So we had a cancer study. We had a mortality and morbidity study. We had hospitalization studies. We had a social health study in the 1990s.

Since that time we've had three fairly comprehensive updatings of the baseline studies, which have been very comprehensive, looking at changing circumstances within communities, the changing populations.

It looks at the things that determine health, whether it's housing, crowding in homes, sewer and water availability, access to food, smoking rates, and then fairly significant studies and presentations on things like health effects, chronic diseases, infectious diseases, causes of death.

Those studies have been shared very, very broadly across the North. Pretty well every school -- high school has a library shared with all the band councils, municipal offices.

We get very specific information for some communities, at their request, and so we do make specific community presentations or various organizations. A lot of communities find this information very valuable as it relates to community planning, looking at what some of the determinants of health are for their communities and what some of their issues are are presented.

Now, a lot of those things are not directly related to uranium developments at all. We have -- if we look at something like systemic Lupus that Dr. Dewar describes and related to uranium exposure, if you look at a lot of the background information on systemic Lupus -- which is an autoimmune disease that has a genetic component and an environment component -- the most common things that they've looked at as risk factors for SLE have been smoking; sun exposure; solvents; some medications, and those medications include things like isoniazid which is used for tuberculosis; that's commonly used in the North. There's a variety of other, different circumstances.

The other thing is virus infections. Some common viral infections can result in the body building up antibodies to the virus and then subsequently it's a situation where those antibodies go against the body itself, so it can cause autoimmune diseases.

First Nations people have higher rates of SLE. In all the studies that have been done, whether it's been British Columbia, Alaska, Alberta, Manitoba, the Arapaho in the United States, the Crow, the Australian Aboriginal people, have SLE about 2 times to up to 3.8 times that of general population.

In northern Saskatchewan, we've looked at SLE, and it's -- if we look at not age-standardized, if we just look at the community rate, it's about 30 percent higher, so about 1.3 higher than the provincial average if we look at hospitalization rates over a period of time. Given the uncertainties of hospitalization rates, we need to be cautious in the interpretation of that, but it certainly is well below the expected amount that you'd see in other Aboriginal populations.

Dr. Dewar's comment is also about Rosacea, about some increased risks of Rosacea. Rosacea is a skin condition in which you get cheeks that get quite red and nose that gets quite red and sort of a facial flush, and it's aggravated by sun.

And we've done a fair bit of research from the 1990s on, working with families that have a condition that's called polymorphic light eruption, or it's a solar dermatitis from the sun, but it's pretty fairly linked to HLA typing or chromosome so it's a genetic condition.

So in the '90s, the '80s and '90s, we saw a lot of this. Families now are able to use some of the newer sunscreens, and so we don't see the effects quite so much any more, but this has nothing to do with uranium, uranium exposure, environment exposure; it's really ultraviolet exposures.

We've looked at uranium impacts, or a variety of different environmental circumstances as it relates to things like cancers. We have a number of different circumstances in northern Saskatchewan that increases our risk for cancer, and certainly the number of them -- smoking rates in the north are anywhere from two to four times that of the provincial average. In studies recently in the far north for women who have just delivered babies, up to 73 percent of them have smoked during pregnancy. So the risks to the infants, the risks to the mothers if they continue to smoke, are substantial as it relates to lung cancer rates.

In the north, the rates of cancer for men are about the same as the rates of cancer for men in the southern parts of the province. For women, the rate is a little bit higher, and there's two cancers that are predominant there: One is lung cancer and the other one is cervical cancer, or cancer of the neck of the womb. The cervical cancer over the last 20 years, has been

decreasing and has been getting closer to the provincial average.

So if we look at the risks for lung cancer, the rates -- the two types of cancer that are higher in the north than the risk for the province, is lung cancer in males and lung cancer in females. And the prime factor involved with that, about 90 percent, would be smoking. If we look at the other 10 percent causes of lung cancer, radon fits into that situation.

We've done assessments, or we've monitored the results of in-home radon testing, and the radon testing in the homes have been -- I could actually show you a slide, if you wish, that shows some of the values as it relates to radon levels within the north?

**MEMBER MCDILL:** Yes, please.

**DR. IRVINE:** So there's a slide there -- this is Slide 62, yes, showing the average summer outdoor rate on levels for 17 Canadian cities across Canada. It shows the wide variability of radon in the air.

If you look at a lot of the radon levels in our northern communities, it would be sort of anywhere from that Toronto level up until about the Calgary level in the outdoor air. If we look at radon within homes, the next slide -- sorry. The radon within homes within northern Saskatchewan, we can see that the percentage of

homes in northern Saskatchewan that have levels below the action level, is some of the lower ones within the province.

This slide just gives the ones per provinces, but within -- if we looked at the slides for just the ones for the health regions within the province, the northern health regions have some of the lowest levels of radon levels. And partly that's due to the fact that in southern Saskatchewan where there's more soil and shale, there's more movement of radon through the soil, whereas in northern communities where there's more rock, there's less movement of radon. So, actually, in our schools, our hospitals, the homes that have been tested, the radon levels are relatively lower than the rest of the province.

So our attention has really been discussing with communities the risk of smoking as it relates to cancer. We have other types of cancer that are of concern, that haven't necessarily been related to uranium mining at all, but the slide here just shows the male cancer rates in the south compared to the north.

If you move further towards the left -- or, sorry, further towards the right, the rate is higher in the south. If you move towards the top of the slide, the rates are higher in the north. So you can see cancer

of the prostate in males is a lot lower than in the south, bowel cancer or colorectal cancer is slightly lower in the north, but lung cancer is the one that's significant there. Similar picture for women. Breast cancer is common in both circumstances, but slightly greater in the south. Bowel cancer is lower in the south, but lung cancer is greater.

Now, the challenge that we find is that in general Canadian population, in the lifetime of an individual, we all have about 46 percent chance, as males, of getting cancer. If it's for females, on the average it's about 40 percent of females will develop cancer in their lifetime. As a cause of death it's about 1/3 of the causes of death in Canada. In our northern communities the number of deaths is lower than that because we have a younger population. But the risk of cancer is still there.

So in terms of cancer being seen to be a result of uranium mining, I think by far, the greatest risk that we face is more the issue of tobacco smoking on lung cancer and a variety of other cancers there.

**THE CHAIRMAN:** Dr. McDill?

**MEMBER MCDILL:** Dr. Dewar made some reference to Down's syndrome as well. Do you have a slide or a comment?

**DR. IRVINE:** Certainly, in the Panel hearing there's a lot of discussion about concern of congenital anomalies in general. We've looked at congenital anomalies over the years and monitored it. We end up finding that there is, particularly, three types of congenital anomalies that were sort of, out of the ordinary here, relative to other areas.

Down's syndrome seemed to be about the same effect as others as it relates to risk as a mother gets older. There seemed to be concerns as it relates to alcohol intake in pregnancy, and FAS and FASD being concerns. But the three that we have paid attention to have been types of congenital anomalies that tend to run in families. All populations, no matter what ethnic origin, have certain genes that may increase your chances of congenital anomalies.

The three that we've found are related to very specific community areas and very specific family groupings, and we've been working with those communities to do newborn screening for some metabolic diseases, or doing some screening as it relates to chromosomal testing or genetic testing; and another group with one particular First Nation, we're working with researchers involved with trying to identify the particular gene so that genetic testing and pre-conception counselling can be done. But



those were not related to environmental circumstances at all.

There have been things that have been identified over -- the one particular one called microcephaly-micromelia syndrome has been identified at least through 10 generations in the area here; so not related to uranium mining. Uranium mining and the focus that was placed on congenital anomalies drew us to watch that more closely. But it wasn't related to uranium mining.

**THE CHAIRMAN:** So can I follow up? So I have two quick questions on this. So in your opinion, is there anything cause effect relationship between uranium mining as an activity and health issues? And obviously Dr. Dewar believes that there's something here that we need to study further, even though you mention many, many studies. Why is Dr. Dewar calling for more profound studies?

**DR. IRVINE:** I think it's always an issue of how much information is enough to act, and certainly in the North, we have substantial information that's been shared, discussed with community members, with different organizations; and I think sometimes when you see what some of the health effects are, look at some of the things that are attributing to those health effects, action is

required. And whether you put your -- more and more resources into monitoring surveillance, or whether you move some of those resources into action, things --

We have had things like increasing rates of diabetes. A cause of various health conditions, heart disease, kidney disease, blindness and amputations. The impact of diabetes on something like kidney disease is substantial, and so rather than continuing to monitor that, which is important -- but rather than putting all of your resources into monitoring and surveillance, I think it's important also to be acting on the information that we have and looking at things like improving diet, physical activity, maintaining country foods as a safe healthy food to eat, maintaining the diabetes prevention at an early age, I think is the balance that we have to strike.

So I think that we can find with most health conditions, if we look at our health conditions many of them are potentially preventable, and I think communities are very well aware of that and it's the importance of moving in that direction.

**THE CHAIRMAN:** Dr. Barriault?

**MEMBER BARRIAULT:** Thank you, Mr. Chairman.

Thank you, doctor; but this question is for CNSC, and on page 4 of Dr. Dewar's presentation, top

paragraph, I don't think Dr. Dewar understands the principles of ALARA. So perhaps you could explain it a little further. It isn't negated that ALARA overrides health and environmental issues, and my understanding is that it's just the opposite. Once those standards have been addressed, then we go into ALARA. Perhaps you could explain that?

**MR. JAMMAL:** Ramzi Jammal for the record.

Before I pass it on to my colleague, Ms. Caroline Purvis, the -- Dr. Dewar talks about the ALARA principle and the ALAPA (sic) principle, and you are correct. The -- we have the early (inaudible) oversight requirements that introduces, in addition to this, a precautionary principle. That means we look at every activity and the reduction in selenium or molybdenum was pushed by CNSC oversight in order to reduce all of these values.

So the precautionary principle is applied, and we do take into consideration as low as reasonable achievable. At the same time it's a risk benefit factor. So how is it you're going to put and implement in place programs in order to maintain, reduce, and sustain protection of the environment and the workers. I'll pass it on to our Director of Radiation Protection, Caroline Purvis, to specifically talk about the ALARA principle.

**MS. PURVIS:** Good morning. For the record, Caroline Purvis, Director of the Radiation Protection Division.

So Dr. Barriault, you're correct. Obviously, safety of the workers and the public is part of our mandate. It's part of our DNA as it were, and that is the primary driver. The ALARA principle is embedded in the radiation protection regulations.

So as part of their radiation protection programs, licensees are expected to implement ALARA measures in all of their activities, whether it be environmental protection, or protection of the workers through radiation protection programs; and certainly, Dr. Dewar has claimed that, you know, that financial implications may override safety, and that's not the case.

There are many, many ALARA measures that can be put in place that are not financially costly, such as management oversight, benchmarking against best practices, training, pre-job briefings to make sure people understand what they're doing before they go into a risky situation. And of course, there are things that do cost money and so when you look at implementing engineering controls for example, to reduce that interface between the worker and the hazard, you're going to look at the benefits that can be gained by putting in an engineering

control, for example.

You know, ideally we'd like to always have engineer controls. But in some cases administrative controls may be necessary, which means enhanced procedures or personal protective equipment for example, and when we look at CNSC oversight ALARA is one thing that -- where you know, we continually review, when we visit our licensees and when we look at documents that are submitted for review. The benefit of having, you know, people in my division, my specialists look at radiation protection programs and implementation of ALARA across our full fuel cycle in all licensees. So we have that benefit of looking at benchmarking, looking to see what other licensees do and then bringing those ideas and talking with licensees to ensure that they are really implementing all those measures to the best of their abilities.

And so it's an ongoing process. It doesn't stop. We do continually ensure that licensees are taking those measures and implementing them into their programs.

**MEMBER BARRIAULT:** Thank you. Next question if I may?

**THE CHAIRMAN:** Just --- I think there's a misunderstanding, at least I'm reading that the Dr. Dewar states that a lot of (inaudible) substitute for the health standard.

In other words, let me put it this way. I think what I heard you say is, you first have to meet the health standard, then you apply whatever else to even go below that. So just meeting the health standard is not enough. That's what the ALARA principle is.

I think, what Dr. Dewar is claiming that, instead of the health safety, you just do whatever you can possibly do. So I think there's a misunderstanding here what ALARA is. Did I get it right?

**MS. PURVIS:** Absolutely, yes. Caroline Purvis for the record.

As Mr. Jammal stated and you very eloquently stated, health comes first, absolutely. Our dose limits are based on healthy populations of workers and just meeting that standard is not good enough, and that's why the ALARA principle is there to ensure we have doses and exposures as low as achievable.

**THE CHAIRMAN:** Okay, thank you. Member Barriault?

**MEMBER BARRIAULT:** Just one more, brief question. Thank you for your explanation by the way. I think it clarifies that point.

My next question is to Dr. Irvine. If you had a wish list of studies that you would like to do, what would it be?

**DR. IRVINE:** Would this be a wish list that I could include not necessarily environmental monitoring itself, but in terms of health effect in general?

**MEMBER BARRIAULT:** Exactly.

**DR. IRVINE:** I think it would really be looking at social impacts within our communities. The impact of social mental wellbeing would have a great impact on a variety of things such as: healing of long term, intergenerational effects; alcohol; injuries; violence and suicide. So I think it would be in that whole area of mental wellbeing and community development.

**THE CHAIRMAN:** I am sure we have lots more questions and I wonder if you are going to stick with us for the morning Dr. Irvine?

**DR. IRVINE:** Yes, I'll be available all morning.

**THE CHAIRMAN:** So, I'd like to move on, because a lot of those issues will come up, unless you've got some really burning question now?

**MEMBER VELSHI:** It is still on the health studies. Dr. Dewar on page 2 talks about uranium and renal failure and that that's a very well documented correlation she talks about and -- or Dr. Dewar talks about. And, there's also mention of Workers Compensation claim around that and I don't know if this patient from La

Ronge is a uranium mine worker, but Dr. Irvine if you have any details on that that you could share please.

**DR. IRVINE:** Yes. Certainly I don't have information on particular individual mine workers.

Uranium in high doses can cause kidney damage. The levels that we see in most circumstances of human exposure, there may be some minor changes within kidney function, as a minor, reversible micro protein that can get lost within the urine. Generally, in -- we see that when there's been populations in China or other locations in which they have had very high levels of uranium in their drinking water. So they're exposed to it on a day by day basis, for a long period of time.

When we -- certainly when we look at uranium exposures to general populations within northern Saskatchewan through human health risk assessments, we watch for levels within food supplies, water supplies and things like that. And, partly we do it because of uranium presence and wanting to make sure that there's no impact on uranium mining. We also want to do it to make sure that individuals within the North are confident in their water supplies, and within -- their drinking water supplies and as well as the food they eat.

Country foods or traditional foods are very important to the health and ongoing cultural continuity of



First Nations and Métis people within northern Saskatchewan. So the last thing we would want to have is false information or rumours going about the damaging effect of eating country foods.

Country foods are nutritionally dense. They have good healthy fats and they're lean. So that has a very protective effect for diabetes, some types of cancers, cardiovascular disease.

So, I think there's a risk sometime of -- if people lose confidence in their country foods, if they convert from country foods from lean caribou or lean meat, of healthy fish to eating fried chicken, hamburgers, pork chops, the impact of that on the health of -- in Northern Saskatchewan would be impacted significantly, so.

So, I think that's where monitoring for things like uranium, other things that I -- that are important, or in the environment that are important. The area in which we have a fish advisory particularly, in the old area of the uranium city mine site from Beaver Lodge, is related to selenium, not to uranium. And selenium is one of those things that if you don't have enough of it, it's not good. If you have too much of it, it's not good. We noticed that, you know, selenium is actually included in our vitamin pills.

So we have an advisory for fish in the

Beaver Lodge area, but it's related to the amount of fish that's safe to eat. Just like it would be unsafe to eat too many vitamin pills.

So, that's the one fish advisory that we have, particularly in that area. The other ones are related to closer to communities. There are no concerns as it rates to uranium in fish in those areas.

**MEMBER VELSHI:** Thank you. So maybe to staff, to you know if this Workers Compensation claim was an occupational exposure of a uranium worker?

**MR. JAMMAL:** Ramzi Jammal for the record. Just to confirm that CNSC staff don't have the exact details, nor were we aware of a reportable Worker Compensation. But I would like to ask the licensee who is the employee? If they have any information? If they can provide any information.

**MEMBER VELSHI:** Thank you.

**MR. MOONEY:** Liam Mooney for the record. We don't have any information in that regard as it relates to a WCB claim as set forth in Dr. Dewar's presentation.

**MEMBER VELSHI:** Thank you.

**THE CHAIRMAN:** I assume one can get the information. One can find this information right? Or is it confidential?

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

record, and we can look into that. Again, I'm not familiar with the particular facts that have been set forth, but we can investigate.

**THE CHAIRMAN:** Okay. Dr. McEwan?

**MEMBER MCEWAN:** Thank you Mr. President. I think this is a question for staff. Dr. Dewar makes a, almost a throwaway line of leaks that have covered up and not reported. Do you have any comments on that? Is that a valid concern that she's -- that Dr. Dewar has put it?

**MR. JAMMAL:** Ramzi Jammal for the record. We have with us our project officers who do inspect the site. However, I would like to remind the Commission, whatever information Dr. Dewar has, we would love to be informed of that information. Because under the law, any information is given to the CNSC, is treated in confidence. As a matter of fact, the individual is protected if the evidence were found to be true. So, we do get phone calls. We do get reports in confidence and we send our staff in order to do two things; fact finding from inspection purposes and we switch over to an investigation. And to date, we don't have such report or information. But I will pass it on to my colleagues from the project office, if they have anything else to add.

**MR. LeCLAIR:** Jean LeClair, just to further strength what Mr. Jammal was saying.

We go out to the communities. We go to the mines as part of our regular inspections and part of our outreach activities. We're always talking to people.

We have -- there's an actual local magazine, "Opportunity North" in which we have -- our phone numbers are there. They're available.

In our outreach activities, we are constantly listening. We want to hear from people.

We can't say what we don't know because we don't know what we don't know. So the important thing here is, is that we're always talking to people. We interview staff, the workers at the mine sites. We make ourselves available to them.

And generally speaking, we find that the dialogues are quite open. Workers are willing and comfortable in talking to us about any issues they might have. If and when we are made aware of a particular situation, we follow up, we verify, we independently check to see what those situations are and take action as appropriate.

I'll ask Sarah Eaton, who is a project officer from MacArthur River, if perhaps she can add ---

**THE CHAIRMAN:** Can we do it very, very short please? We've got to move on.

**MS. EATON:** Sarah Eaton, for the record.

Just one final point, in addition, when we're on compliance inspections, we often interview staff on our own without the licensee present. So if someone did have a concern, they certainly could bring it up in a confidential manner.

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

**MR. MOONEY:** Sorry, it's Liam Mooney from the licensee.

On that issue, I think we emphasized a number of times yesterday about our commitment to operating our sites safely and protecting the environment. We do have a number of mechanisms in place to deal with that.

We have strong safety culture which one aspect of it is a strong reporting culture at all of our sites. And so, reporting is encouraged.

We also have an ethics policy that all of our employees are required to sign and that includes an ethics hotline, which is a confidential system that allows reporting in relation to things where people want to maintain the confidentiality of their identity. And those matters are investigated and they're taken very seriously.

And then the last point I would add is there's also Occupational Health and Safety Committees at these mine sites. So it's statutorily required and

workers can bring and do bring concerns to those committees on a regular basis.

**THE CHAIRMAN:** Okay, I'd like to move on. Mr. Harvey?

**MEMBER HARVEY:** There's a small question to the staff. In his conclusion, Dr. Dewar exhorted CNSC to recommend that the Government of Saskatchewan to undertake studies. What is the place? What is the role of CNSC with regard to such studies?

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

We always promote health and safety. With respect to the recommendation of Dr. Dewar, CNSC staff will neither -- we're neutral, to be honest with you because this is, as Dr. Irvine mentioned, there has been a lot of studies that's been done and when is -- enough is enough.

But as a matter of fact, it's a decision that the province will have to take because we have adequate information with respect to the health of the environment and the health of the workers from CNSC perspective.

Our recommendation is neutral. I mean, it's -- she's making the recommendation and she's entitled to do so.

**MEMBER HARVEY:** Thank you.

**THE CHAIRMAN:** Okay, thank you. Thank you very much. I appreciate that.

I'd like to move on to a presentation now by Kineepik Metis Local Inc., as outlined in Commission Member Document CMD 13-H13.2.

And the same document applies to the three applications and is therefore also listed under 13-H14.2 and H15.2.

And I understand that Mr. Natomagan will make the presentation.

Please proceed, sir.

**13-H13.2 / 13-H14.2 / 13-H15.2**

**Oral presentation by**

**Kineepik Métis Local Inc. (#9)**

**MR. NATOMAGAN:** Good morning.

For the record, my name is Mike Natomagan. I have been the mayor of Pinehouse since 2005. Like my colleague, Vince Natomagan, I am originally from Pinehouse.

We grew up together on a trap line learning how to survive and respect the land and animals around us. We were raised by our grandparents in a traditional way.

Growing up on a trap line meant getting up and working hard each day. This is still the philosophy today.

On May 28<sup>th</sup>, 2010, Pinehouse signed a Memorandum of Understanding with Cameco Corporation. This MOU gave our community hope in terms of economic and social direction. This MOU formalized the 25 year relationship with the mining industry, for it acknowledged that Pinehouse is a primary impact community under the Saskatchewan Surface Lease Agreement.

It confirmed to us that Pinehouse residents would have a greater chance of securing rewarding careers with the mining industry under the mandate of 6 to 7 percent workforce to be hired from Northern Saskatchewan. Two and a half years later, this good faith and mutual respect was put into paper by way of a Collaboration Agreement.

It has been close to one year since we signed a Collaboration Agreement and already, I see this agreement beginning to have a cascading effect. This statement is not to be taken lightly. Virtually our whole community is in a-buzz with hope and optimism that was never there before.

It is truly quite remarkable to see individuals coming out of their shell and wanting to make it better for their lives and their families. It is



remarkable to -- all of the Reclaiming, our Community members are now working more and more into a united front with strategic direction as a whole.

I am humbled to witness true personal, social and community development in action. I consider it as a personal blessing on me to be able to lead Pinehouse in a new direction.

And it makes my job as mayor much more easy when I see neighbours being accountable to themselves and their families. Although it's only a start, only prosperity and self-reliance can come from all this positive activity and hard work.

At this time, I would like to briefly touch on the four pillars of Collaboration Agreement and how work being exerted on these pillars is interwoven into all aspects of community development.

First, the community investment pillar. With the Trust Advisory Panel and RBC as a corporate trustee, we are now working on a 25 year dream of a hockey arena. Where it was an empty shell before, it is now going through construction and foundation for artificial ice. This includes a laying down of footings and ice-plant.

This first phase is expected to finish in early 2014. Once completed, we'll go on to second phase

with construction of dressing rooms, concession stand, bleachers, community administration offices on the second floor.

This is what the \$1.8 million that currently sits under trust has been able to do for our community. It is our hope that other infrastructure initiatives could start to be planned as production-based trust fund moneys gets allocated.

Second is the workforce development pillar. We are currently very busy upgrading about 90 local people in Essential Skills and Employment Readiness program. The Adult 12 program, the Gary Tinker Literacy Skills program and the Women in Trades program. Through constant contention and nurturing, virtually all our students are staying in the program. A significant number have been gaining an employment locally or at the mine sites.

A few have moved on to further their post-secondary education in the trades or technician capacity. Again, this is truly remarkable to witness.

We are now at the point where we are integrating our community skills matrix with our strategic plan to better address the educational needs of our citizens. We are also engaging with all our partners like Northern Career Quest, Northlands College, Dumont Technical Institute, Cameco, Pinehouse Business North and

Northern Village of Pinehouse.

We fully anticipate positive results coming from this pillar.

Third is the business development pillar. With the latest introduction of Cameco internal implementation team that consist of mine managers, project managers, supply chains personnel and vice president, we are hopeful that business development opportunities will continue to materialize and grow.

We have placed considerable effort in personalizing our economic development, our Pinehouse Business North LP with competent staff, sound board of directors, and best practice governance structure.

We have been busy carrying out contract work for Cameco. In the meantime, we will keep strengthening the company to ensure a strong business work ethic so that Pinehouse Business North will always be the service provider of choice for Cameco supply chain.

The fourth pillar is the Community Engagement in Environmental Stewardship pillar. Three dedicated individuals from Pinehouse have been appointed to oversee the success of this pillar. These individuals are tasked with the responsibility of fully engaging all members of Pinehouse in relation to community concerns and environmental matters as it pertains to Cameco's mining

operations.

In addition, our community partner and co-signator to the Collaboration Agreement, Kineepik Metis Local Inc., has taken the lead on this file. Kineepik Metis Local will address this pillar of the CA directly following my presentation.

As a concluding statement, while we are now going down this path to eventual self-sufficiency and independence, the demographics of our community is never far from my mind.

According to the 2013 community profile, 53 percent of our youth is under 19 years old. Over 400 students are registered at the local elementary and high school; that includes 30 students in grade 12. This young population will have a dramatic impact on our ability to meet their future needs.

As leaders in various capacities in our small northern community, we have no choice but to act against the status quo of being idle, letting the youth to fend for themselves. Accepting status quo is not an option. We must get up and work hard each day in order for our children to have the same quality of life as mainstream.

I believe that in the long-run, society will look favourably on our current efforts to be

productive members of our community. At this time, I would like to encourage all northern leaders to keep hoping for the best, to keep dreaming for a better tomorrow, and understand that it takes unity and pure hard work to achieve results.

I believe that the mining industry is operating with due care and desires a win-win scenario with all north communities. But hard work goes both ways. Partnerships can be forged, and each party gives each other a chance.

The northern village of Pinehouse supports all Cameco's mining operations at this hearing.

I now turn it over to my colleague, Vince Natomagan. Thank you.

**MR. V. NATOMAGAN:** Good morning, ladies and gentleman, and good morning to you, Mr. and Madam Commissioners.

For the record, my name is Vince Natomagan, Executive Director of Kineepik Metis Local, and originally from Pinehouse.

I concur with my colleague that it is our inherent responsibility to protect the land and resources that fall within our ancestral lands and traditional areas.

My colleague and I were taught to trust our

instincts when going about trapping and food-gathering on the land. We were taught to trust others at face value, for a man's word was as good as his handshake. We still hold onto this most simplest of gestures, for it defines a man, it defines a community. It takes resolve and due diligence to ensure the concept of sustainable development is given life in every sense of the meaning.

My upbringing as a trapper's son and as an active, traditional resource user, gives me the appreciation to be aware of my value as a knowledgeable Metis man. My fellow community members hold a certain level of recognition and trust in me to be knowledgeable enough to understand technical information from Cameco's regulatory and environmental reports.

As I sit in front of you, I am a forward-thinking individual that is generally aware of society's expectations of workers' health, safety and environmental protection. The integrity and independent authority of the CNSC is very much essential consideration in the protection of our constitutionally recognized inherent rights, and as true recipients and protectors of the land.

Back in 2010, the Metis community of Pinehouse was very much enthusiastic to hear that the CNSC was given the federal authority to establish a participant-funding program for the active participation

of Aboriginal communities within CNSC's environmental assessments and licensing processes. The participant-funding program opened the door for value-added information to be introduced within the regulatory framework.

The Metis community of Pinehouse understands this to mean the commodification of Aboriginal traditional knowledge, i.e., the activation of a new bridge of cooperation between the nuclear regulator and the Aboriginal community, an Aboriginal community that is capable of engaging on an informed basis through scientific discussions.

The Metis community of Pinehouse believes it is time that ATK is commoditized into a reality, for this builds trust between an impacted group of people in a certain geographical area and the industrial activity that is taking place.

This means recognizing and giving credibility to Pinehouse's growing body of knowledge of environmental and technical knowledge base. This has been achieved by ongoing dialogue with industry reps and training of some community members within the technical field of study specifically radiation, environmental monitoring and environmental management principles. Pinehouse elders and residents understand aboriginal

traditional knowledge systems of the biota that are within our traditional territory.

ATK is not static and does not remain trapped in time. Quite the contrary. ATK is in current use and has been built on, generation by generation. It is sophisticated and adaptive, like it has always been for millenia. ATK needs to be able to respond to changes in the social environment, but more so in the physical environment for the purposes of this hearing.

We believe environmental regulations that we live by, and enjoy its obligatory actions, could be made that much stronger if a progressive community, such as Pinehouse, was made an active participant in the lands protection measures. This would build confidence in all traditional resource users that their leaders are active protectors also.

With these grand aspirations, Kineepik Metis Local Inc. wishes to recommend that the CNSC embrace ATK, as we, the Metis people of Pinehouse, have done so for millenia and incorporate within their policy design and licence approvals.

As for the written intervention, Kineepik Metis Local Inc. wishes to recommend that the Metis community of Pinehouse have a licence-directed participatory consideration to Cameco's mining operations.



Namely, Pinehouse be directly involved in the continuing evolution of the Key Lake site-wide reclamation plan, including assistance in the development and enhancement of the plan on an annual basis.

Pinehouse wishes the environmental quality committee play a strong role in educating Pinehouse members, and the public, on issues related to mining activities. This should include having Cree- and Dene-speaking professionals who'll work with their community's EQC representatives.

Pinehouse desires to update the regular halfway through the licensing period to assess Cameco's performance in accordance with the Collaboration Agreement. The assessment will include the effect of the CA on the culture and well-being of the community, and quality performance measures of the company.

The proponent should better define and report annually on the individual waste streams that comprise waste management and the associated management plan for these individual waste streams.

In order to increase the level of involvement, understanding and engagement in the projects, Pinehouse requests that CNSC engage the community in a review of the projects on an annual basis through the participant-funding program.

And, finally, Pinehouse wishes to carry out its own environmental monitoring sampling program within its traditional territory -- that includes the Key Lake and McArthur mining operations. This would include areas of concern that are outside the periphery of current environmental sampling, such as the Key Lake to McArthur River haul road and the roadways between Pinehouse and Key Lake.

As mentioned at the Cigar Lake hearing, back in April of this year, Kineepik Métis Local Inc., has fiduciary and community trusted responsibility to breathe life into the fourth pillar of the 2012 collaboration agreement.

This pillar now provides a formalized mechanism for community engagement and to consider community and environmental concerns as it pertains to Cameco's mining operations.

The CA signed with Cameco, has effectively obligated the Pinehouse representatives to get up to speed on all Cameco's mining operations pertaining to all regulatory, operational and environmental reports. This is a significant undertaking.

Since the signing of the CA, we have had progressive meetings with Cameco on the joint implementation sub-committee. Cameco and Pinehouse have

cooperated on a six month engagement plan, documented in minutes by the Environmental Committee.

In July and August of this year, Cameco came to visit our community to hold duty to consult meetings pertaining to the Key Lake and McArthur River projects. The Pinehouse Environmental Committee members submitted relevant technical questions to the respective Cameco mine sites staff. The feedback from the Cameco staff will now form part of the Environmental Committee minutes. We maintain that this dialogue is now a joint collaboration with mutual concerns.

In closing, the concept of sustainability is very much intertwined with aboriginal traditional knowledge and is of utmost importance to our community development and growth, through active and direct participation. This means being equal partners in the management on the environment, where the mining operations are situated, while capturing some of the economic benefits that are derived from these activities.

If CNSC is of the conclusion that true and meaningful consultation is ultimately active and direct participation, then Pinehouse is ready to chart a path of capacity and professional development to be active bearers of our inherent responsibilities as true occupants and protectors of our traditional lands.

We are ready to attempt to merge technological concepts with ATK, through active decision making and environmental monitoring. We will ultimately forge a new level of trust and understanding between mainstream and an aboriginal community, and society will be all the better for it.

The Métis community of Pinehouse supports all of Cameco's mining operations at this hearing. Dine gee (phonetic) and thank you.

**THE CHAIRMAN:** Thank you, thank you very much. Questions? Who wants to go, Member Tolgyesi?

**MEMBER TOLGYESI:** In your submission, on the recommendations you are talking about Pinehouse which that Northern Saskatchewan in the mining community plays a stronger role; did you communicate, did you ask this community to play a stronger role?

**MR. VINCE NATOMAGAN:** In regards to Cameco personnel?

**MEMBER TOLGYESI:** You were talking about issues relating to the mining activities, that's what you were saying here.

**MR. VINCE NATOMAGAN:** Generally speaking, we have expressed concerns, but we have to keep in mind, we're still formally getting to know each other, if I can put it that way. It hasn't been a year on the CA. We're

still trying to breathe life in all -- all the four pillars. And we do give credit where credit is due with Cameco. They operate within the mandate of their licence requirements. They don't have to operate outside the norms, if you will, and we give them credit for that.

I do believe, as a Métis community, that the province of Saskatchewan, the Provincial Crown, has to have some dialogue with the Métis community of Pinehouse. So, to that effect, I don't know if that answers your question.

I am trying, as I said Mr. Binder to you last April, the Métis community of Pinehouse is trying to actively engage the Provincial Crown on co-management matters, but it remains to be seen. But, we're trying very hard, in a diligent way, with due diligence and hard work and respect, to make sure that the Crown understands that we're serious about where we're wanting to go.

I'm not sure if that answers your question? And we do have our professional help by the name of Matt Vermette from Northern Research Group out of Prince Albert that could engage you on some of the technical questions that you might have.

**MEMBER TOLGYESI:** Yes to compliment staff, you are involved in this Northern Saskatchewan economy. How do you foresee this?

**MR. LeCLAIR:** CNSC staff. We certainly support the important role that the Northern Saskatchewan Environment Quality Committee plays in getting communications, getting information out to the various communities of Northern Saskatchewan. We, as I mentioned in my presentation last evening, we actually actively participate in meetings with the Environment Quality Committee. We go with them on the tours of the mines. We make presentations to them. We give them updates on what's been happening for us as a regulator. For instance, at the last EQC meeting, we informed them about these hearings and how they could participate in the hearing.

So they're an important vehicle for getting information out to the communities. These are 35 communities that are represented on this committee. It's overseen by the Northern Mines Monitoring Secretariat, which comprises several departments from the government of Saskatchewan and the CNSC being myself, is also a participant on that group, the Northern Mines Monitoring Secretariat. Dr. Irvine that we heard earlier, actually, is also a participant on that group.

So, I certainly see benefit and there's always merits to see how we can strengthen and help the Northern Saskatchewan Environment Quality Committee to get

them the information the right way, so that they can get that out to their communities and to the people within their communities.

**THE CHAIRMAN:** Anybody else, question? Dr. McEwan?

**MEMBER MCEWAN:** Thank you for your presentations. We heard Dr. Irvine earlier talk about other health determinants for populations in Northern Saskatchewan. You've talked very much about the environmental opportunities that this collaboration agreement has created. Do you see the agreements has creating other opportunities in looking at other health determinants for the populations? i.e., can you build upon what you're growing into a broader community -- community involvement and community health?

**MR. VINCE NATOMAGAN:** Vince Natomagan for the record. I'm going to turn over to my colleague Matt for him to answer that question. Matt?

**MR. VERMETTE:** Here we go. Matt Vermette for the record. I think at the current time, that's not within the mandate of the CA and within the environmental pillar, the health effects.

Of course, one of the recommendations that came in in the intervention was, to increase the study of country foods. And we were actually out in the community,

on the community consultations and within the community that was their main concern. They really wanted to know how uranium mining affects country foods and how consumption of country foods affects human health. And so, so I think Dr. Irvine mentioned that some work had been done there. But, it would be nice if more could happen, but it probably won't happen underneath this CA. So, there will have to be another vehicle for that to happen.

**THE CHAIRMAN:** Dr. McDill?

**DR. McDILL:** Thank you. In referring to your appendix on page 30, you make a recommendation for a third party review of the decommissioning plan; is that correct?

**MR. VINCE NATOMAGAN:** Vince Natomagan for the record. That's correct.

**DR. McDILL:** I wonder if staff and Cameco could comment on the role of third parties in developing the decommissioning plan, starting with staff.

**MR. LeCLAIR:** An important part on all the activities that are going on in the mine sites, we expect licensees to engage the communities and get their input on their plans, particularly when it comes to reclamation and decommissioning activities. Because at this stage we're looking at the post-closure phase of a mining operation,



what it will look like in the longer term. Clearly, communities have a lot of interest in what that looks like. Discussions around access to the property, what kind of activities people will be able to undertake on those sites. What the sites will actually look like. So we expect licensees to engage the communities, get their input with regard to their reclamation, decommissioning plans.

And on that note, as part of the tours that are happening every year within the communities, the CNSC staff have attended discussions around reclamation work, decommissioning work, any changes in the operations, any environmental assessments that are underway. These are all things that are discussed, and we expect to have discussed, at those meetings to ensure that community members have an opportunity to provide input into the process.

**MR. JAMMAL:** Mr. Ramzi Jammal for the record.

To answer your question, Dr. McDill, is there a third party involved in the assessment of the decommissioning? So the process at the CNSC is the following, the licensee will put in place a decommissioning plan, and they are required to engage a third party in order to verify and submit to us, the CNSC,

this pre-decommissioning plan; and staff review the technical aspect of decommissioning plan to verify that the funds associated for the financial guarantees is adequate.

So the third party is engaged, and in addition, CNSC staff independently review the technical aspect of the pre-decommissioning plan, or primary decommissioning plan.

**MR. VINCE NATOMAGAN:** Vince Natomagan for the record.

I would like to compliment that answer. With all due respect to Cameco staff, they tend to think in timeframes, five years, five years, five years. The Métis community of Pinehouse, and probably for our neighbouring primary impact community patch and I, can't think five years. When the mining industry leaves within 25 years, we're still there.

It's fine to have a two-day session as per one of the -- I think it's the five year site-wide recommendation plans. It's fine for Cameco technical staff to have a two day "brain storming session" and subjectively come up with something called FEMA, which is a risk assessment tool, and their five-year site wide reclamation plan. It's fine to have that. But they're ultimately going to be gone.

We have to think holistically. These are traditional lands. We talk about country foods. Yes, we will be, in fact for our health and our culture and our language, we will be relying on country foods 25 years, 50 years from now. And with all due respect, when we say marrying ATK and technical concepts, we're talking about sitting with the technical experts at Cameco offices, sitting with them as equal partners.

So while they're talking about they're having five year windows within their expertise, Northern Saskatchewan people - it's high time - sit on those decision tables and we feel that the collaboration agreement, especially the fourth pillar is a mechanism to get there. I'm sorry, but we don't like being talked down to. Those days are gone.

My colleague and I sit here today and we're equal partners in every sense of the word and Cameco better get it through their head that we are equal partners. We didn't sign that collaboration agreement so we could just roll over and collect a little bit of funds here and there so we can build a hockey arena. We have our heritage and our culture to pass along to our future generations, and come hell or high water, that's what we're going to do. We have no choice but to think holistically rather than five years.

**THE CHAIRMAN:** Cameco?

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

And we will consult with Pinehouse on reclamation planning through the committees that have been established under the collaboration agreements, as well as some of the pre-existing mechanisms that are in place including the EQC.

**MR. WILLY:** Sean Willy for the record. We fully support Mr. Natomagan's comments. The collaboration agreements are an evolving process. Consultation and engagement evolves over time. For the past 25 years, Cameco and the Métis community of Pinehouse have worked closely, and we recognize and will work with Pinehouse, as Mr. Mooney stated, in a collaborative manner moving forward on decommissioning plans.

**MEMBER McDILL:** Thank you. What sort of third-party review then are you requesting?

**MR. VINCE NATOMAGAN:** Vince Natomagan for the record.

I think I could answer that in a northern context. There is still a lot of distrust between governments, corporations, and northern communities. Let's look at all these 27 interventions if we want to cut through everything. Why are some of the interventions being very challenging the next two days? It's because

there is still a big disconnect.

It's fine to have technical reports, binders, and binders of them. It's fine to have data from industry environmental sampling. But if northern communities, what vehicle -- I don't know, maybe the EQC vehicle, maybe the Athabasca working group, that's a very good model.

The Athabasca, the Eastern Athabasca regional monitoring program, I like that model of a community program and a technical program. They got something right really going on, and to what I'm hearing - - I've been digging around every place I can dig around and the conversations I've been having with some of those groups up there, as a Métis man from Northern Saskatchewan, I like. I like the fact that ATK is in fact being commoditized by having traditional resources users do sampling side by side with industry reps and some Ministry of Environment staff, and that's one avenue.

Another one is the very presence of professionals such as NRG Inc. Matt Vermette and his colleagues are very technically inclined just -- I would argue, just like anybody else within this room, and they have the ability as an independent third party to assess information by its own merits and then make recommendations or have concerns known to Pinehouse. So

leaders like Mike and myself could make sound decisions based on technical and environmental information rather than opening up a newspaper.

**MEMBER McDILL:** Thank you.

**THE CHAIRMAN:** Ms. Velshi?

**MEMBER VELSHI:** Just following up with what you just said in your oral presentation, you talked about wishing to conduct your own environmental sampling, and last night we heard about the Athabasca working group doing their own independent environmental monitoring; and I don't see any submission here from the Athabasca working group on what the results of the monitoring are.

But maybe I'll start off with staff. Can you give us a quick picture of, besides the licensee, who else does monitoring of the environment and how are those results consolidated and made public?

**MR. LeCLAIR:** So besides CNSC's work, the Province of Saskatchewan also independently conducts some activities. I mentioned earlier about the Northern Mines Monitoring Secretariat. There's a program called Cumulative Effects Monitoring Program that was in place for a number of years. That actually involved community people and actually taking sampling.

As Mr. Natomagan mentioned, the Eastern Athabasca Regional Monitoring Program -- we'll actually be

hearing more about that later on in this hearing from the Ministry -- the Saskatchewan Ministry of Environment. It's actually one of the interventions during the hearings that will specifically be discussing about the Eastern Athabasca Regional Monitoring Program, which will actually provide -- I believe will provide the Commission a good overview of that program and the results of the program, and where it is going forward.

I'd also like to ask Malcolm McKee if he could perhaps elaborate a little bit further with regards to monitoring activities.

**MR. MCKEE:** Malcolm McKee, Director of Environment and Radiation Protection and Assessment.

Presently, in addition to the monitoring programs that exist for the specific mine sites themselves under their regulatory licences, as was just mentioned, there's the -- there has been the Eastern Athabasca working group program. That information is -- CNSC is not involved in these other programs, but we are aware of them and we actually do incorporate the data in much of our overall assessments.

The Athabasca working group has been posting their information and their data, actually on the webpage. The Eastern Athabasca monitoring program that you hear about later is -- also has a very excellent

Web page that's up now, and again, you can get both the technical reports, the interpretive reports and the raw data off of the Web pages on those sites.

Now, moving forward, one of the mandates for the CNSC has been to develop an independent environmental monitoring program for the full nuclear fuel cycle. Right now that program is at the stage where all the different facilities within the fuel cycle -- the program has been launched on with the exception of the uranium mines and mills. That's the one we're going to be looking at developing in the year to come and that is the one that we've been holding back because it is going to be a much more complex program to develop because we will indeed want to look at where can we integrate best within all these existing programs. And where do we fit in as a nuclear regulator here in terms of looking at these expanded issues such as country food issues and integrating in other programs that are off-site versus on-site.

So we want to make sure we get this right and we're going to start working on that at the end of this year and into 2014 and hope to be launching by 2014.

**MEMBER VELSHI:** Thank you.

So Mr. Natamogan, having heard that from the CNSC, can you maybe elaborate on what the objectives



of your additional environmental sampling would be? Is it to compliment what's already happening or to get your own independent assurance?

**MR. VINCE NATOMAGAN:** Independent, Vince Natomagan, for the record.

You're absolutely bang on. Independent assurance of the testing and, as I said in my oral presentation, we do believe that there might be some areas, especially between Point A and Point B, this mine and that mine and then that mine.

I would argue that the mining industry, although we give them credit for all the downstream sampling that they're doing, there's a lot of peripheries or areas of concern that are being missed. For instance, I would argue right from our community of Pinehouse right to Key Lake and then to MacArthur River, who's doing any sampling in between? Nobody is.

**THE CHAIRMAN:** I thought -- I may be wrong, but the Ministry of Environment will be here and I thought they are sampling the whole of Northern Saskatchewan, if I understand, it is like a regional analysis. But they will be here. We'll ask them.

**MR. VINCE NATOMAGAN:** Yes, and they're quite short on staff and provincial budget allocations and the North seems to be the Wild West sometimes. But we

want to remind the provincial crown, hey, we live here, and we can actually help you.

But we still have to encourage that here to come to the table. We're trying to do that. You've got to give us credit for trying.

**THE CHAIRMAN:** Ms. Velshi? Anybody else?

Help me a little bit to understand. Do you have -- so it's your community who signed the deal, right? What about the rest of the communities and maybe that's a question to both? I understand from Cameco's presentation that there are nine such agreements, if memory serves right.

Are all the communities that did sign agreement actually come together and sit together in one room and compare notes, do something together like that?

**MR. VINCE NATOMAGAN:** Vince Natomagan, for the record.

I don't think the proponents at this point in time have encouraged or industry in general have encouraged Northern communities to come together. I think, in my opinion, it's Northern leaders that have to be the taller blade of grass ---

**THE CHAIRMAN:** M'hm.

**MR. VINCE NATOMAGAN:** And sit together and say, we live in the same geographical area. Can we maybe

stop fighting for that crumb that's on the table while the cake is sitting on the table? Can we maybe get together and if we can get together, heck, maybe we might sit on the table and eat the cake ourselves. Heck, we'll even cut it ourselves.

But this is the conversation that a colleague and I once in a while have. If the First Nations and the Métis communities can get over the fact that this one holds a treaty card and this one holds a Métis card and this one's a municipality. Get over it. We all live in the same geographical area and if we don't think together, I don't think it'll be industry's job to say, hey, we're going to have you guys sit together. That's not industry's job and we don't expect them to do so.

It's for us to pick up our own phones and we live in a sparsely populated area called Northern Saskatchewan and the geography, gas is really high up here. We'd love to see the day to have a big Northern forum, to lay down all our weapons and sit together and say, ok, we live in the same geographical area.

Let's try and maximize economic returns on some of the industrial activity that are happening. If we can do that, that would be a great day, in my opinion.

**THE CHAIRMAN:** Well, you do have this EQC

which I think we are going to hear from later on. Is that not a good forum to start such discussions?

**MR. VINCE NATOMAGAN:** It could be, but EQC doesn't have teeth. The provincial Crown made sure of that.

**MR. WILLY:** Sean Willy, for the record.

I think over the 25 year history of the model established in Northern Saskatchewan with communities, First Nation communities, Métis and municipalities working together is second to none. That's evident in many of the business opportunities and joint ventures that have been created over that 25 years.

Secondly, with the EQC which encompasses all the communities sitting around the table at once, to your question about our agreements, there are nine priority recruitment communities identified under the provincial surface lease.

As I mentioned in our presentation, seven of those communities lie within the Athabasca basin. And in 1999, we signed an Impact Management Agreement. We are now renegotiating that agreement with the Athabasca basin communities. That is why we started with the communities of Pinehouse and English River. They were the only two priority recruitment communities at the time that did not have a formal agreement.

And that's why we negotiated with Pinehouse and English River and at present, all nine priority recruitment communities have a formal agreement with Cameco.

**THE CHAIRMAN:** So let me just pick one topic. On reclamation, I think everybody would like to see the land return to as good a form as you can. Wouldn't you benefit from having a larger discussion rather than bilateral discussion with community on reclamation, what kind of vegetation, land formation, all those things I think the local communities can help in this area.

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

And as detailed by Mr. Jammal, there's a detailed process involved in developing those reclamation plans. We also have a very formalized process for developing the preliminary decommissioning plans.

In both instances, there is updates and engagement with communities in Northern Saskatchewan about those activities. And ultimately the decommissioning of the facilities would be subject to an environmental assessment and in that conversation, we have had any number of environmental assessments where traditional knowledge is part of the gathering that's done in support of the completion of those environmental assessments.

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

Mr. Tolgyesi?

**MEMBER TOLGYESI:** Just one -- tell me, is the content of these individual agreements with different communities public? The content is public or it's not?

**MR. WILLY:** In each case, if you look around the country, it's up to the leadership of the community to determine what they would like to share and what they would like to keep within their community.

In the case of the Métis community of Pinehouse, they chose to make the agreement public. So they posted it on their Web site.

In the instance of English River, they chose to keep the agreement confidential for business purposes.

**MEMBER TOLGYESI:** And from industry point of view?

**MR. WILLY:** From our point of view, it's moving towards a more partnership approach where we take our direction from the elected community leaders and their elders on where they want to do and we support what the elected officials of those communities choose.

**THE CHAIRPERSON:** Okay, thank you very much. You have the last word, you want to say.

**MR. VINCE NATOMAGAN:** Vince Natomagan, for

the record.

Yes, we do support Cameco and its 10 year licences of all three mine sites. But everybody that is in earshot of my statements, including in this room and online, the Collaboration Agreement that Pinehouse signed is a true collaboration agreement.

As I said to this Commission back in April in Saskatoon at the Cigar Lake hearing, we have our own grey matter. We have the ability to have scientific discussions with the experts at industry or with the Crown. We do have enough expertise within our community; we just have to be given due credit for that.

So, although I shouldn't address it, this particular CA is in litigation at this time by certain groups in society, and the truth will come out eventually within a court of law and it'll end up the right way. I think society will definitely see that Pinehouse leadership is strong and vibrant, and they're very intelligent in the way they're engaging with industry. And they did, in fact, engage all community members by way of quarterly meetings.

I look forward to the day that society can say, "Pinehouse, well done. Well done. You've tried to the best of your ability." And that's what the CA was, true, equal partnership, and I thank you for this time.

**THE CHAIRMAN:** Thank you. Thank for the intervention.

The next presentation -- and I think we are getting them to come forward -- is by Prince Albert Grand Council as outlined in CMD 13-H13.3, and 14.3 and 15.3, and I understand that Mr. Hardlotte will make this presentation. Anytime you're ready.

**13-H13.3 / 13-H14.3 / 13-H15.3**

**Oral presentation by**

**Prince Albert Grand Council**

**MR. HARDLOTTE:** Good morning to the Commission and to the individuals that are here.

**(SPEAKING NATIVE LANGUAGE)**

I'd like to introduce the individuals that are here. I have Prince Albert Grand Council Vice-Chief from the Dene Nations, Joseph Tsannie; elder Pierre Robillard, who is also a trapper and a hunter from Black Lake. I have Adam Charles, who is a hunter and trapper in northern Saskatchewan and an elder from the Lac La Ronge Indian Band; Jim Tsannie, that works for Prince Albert Grand Council; as well as elder and trapper and former commercial fisherman, Emil Hansen, from Wollaston Lake.

I am going to turn the microphone over to



Vice-Chief Tsannie to make some comments and we're going to allow the elders to speak, and elder Robillard will speak in Dene, and the elder from the Lac La Ronge Indian Band and Woodland Cree, Adam Charles, will speak in Cree.

Vice-Chief?

**MR. LEBLANC:** If I may, Vice-Chief, just to remind everyone that we have translation in Dene and Cree so this is an opportunity to obtain some translation devices at the reception desk. Thank you.

**MR. JOSEPH TSANNIE:** Okay, thank you.

**(SPEAKING NATIVE LANGUAGE)**

I just want to acknowledge the traditional territory of the Lac La Ronge Indian Band. I know that Chief Cook-Searson is not here with us. I just want to acknowledge the elders that are here with me.

My name is Joseph Tsannie, Vice-Chief of the Prince Albert Grand Council for the Athabasca Dene sector. The Prince Albert Grand Council has interviewed and taken testimony of numerous elders, hunters, trappers, fishers and gatherers from northern Saskatchewan First Nations within the PAGC territory.

This information has been recorded in written texts; in some cases, audio recordings. PGAC has always held that the voice of the people that use the land, traditionally and culturally, must be heard in the

midst of all industrial activities in northern Saskatchewan.

The First Nations people have always been the natural stewards and caretakers of our lands, and they will continue in this tradition.

PGAC is not opposed to industry and PGAC understands that there must be an economy for the people of northern Saskatchewan. The issue is that the First Nations must have a maximum benefit from the minerals and natural resources that are being extracted from our traditional and ancestral lands. There must also be assurance that industry will move forward in a responsible and sustainable manner.

The First Nations people in communities in northern Saskatchewan are concerned of the lack of continued reclamation activity at the decommissioned mines at the Uranium City area. The funding for these clean-ups must be made available by the federal and provincial governments so the work will not come to standstill.

The question that many individuals ask is that if industry cannot clean-up its site, such as Gunnar, then why are they still asking for more, longer licences? The people of the community, of our communities, believe that the clean-up of these decommissioned mine sites would continue and they would be given the opportunity and

receive some contracts regarding the clean-up. The Canadian Nuclear Safety Commission must ensure that these clean-ups continue.

The elder and youth continue to state that the nuclear industry is moving ahead at a steady pace and the people that are involved in any manner must understand the decisions that are made today will have an impact on future generations. The effect of nuclear industry will be felt by our people in northern Saskatchewan for hundreds of years to come.

Several of the trappers in northern Saskatchewan have complained about the amount of garbage and wastes that are being left behind at their trap lands. This includes garbage bags, trash, oil, fuel drums. The trappers would like this garbage to be removed by exploration companies as soon as possible.

The trappers would also want to request the exploration companies not to set up near their trap lines or cabins. These trappers also request to be advised and informed of all industrial activities on their trap lines.

As we move forward to building relationships with industry and governments that profit off our traditional territories, it is important for them to understand that our culture, health, our families and our land, will always come before money.

While we recognize that our natural resources can benefit us economically, we will not blindly trust that industry holds these interests at heart, nor will we continue to accept poverty as a way of life while billions of dollars are being extracted and shipped out of our back yards.

We want this relationship to work. However, an element of trust that is missing sitting across the table from one another, and because of that, First Nations everywhere will continue to push back against involvement and their territories and ultimately in court rooms.

If industry wants to move forward, it has to be with aboriginal people. Our communities need to be partners and even co-applicants. We need to be sitting with you at the table and at that table. We need to be active participants in the decisions that impact us all.

In this province, we have a what is known a popular Premier. It is unfortunate that he continues to gain popularity in the back hands of First Nations people.

Just recently, the SASK Party released TV campaign ads, stating that they're, in no uncertain terms, that provincial government consider any sort of revenue sharing with First Nations people.

This is not acceptable. What the

government needs to realize, is that sharing is not a sacrifice. It's an investment for the future of this province.

This province prides itself of being a have (phonetic) province. There is talk about all the money that is invested in Northern Saskatchewan, roads, infrastructure, utilities service, yet they all lead to industries front door, and not -- and aboriginal communities still have not.

We are determined to resolve this issue. Since the time of treaty, First Nations people have always been open to sharing the benefits of all. By sharing, we stand united together, we overcome obstacles, we celebrate differences and similarities. We truly prosper. But until that time, the prosperity of this province is scarce if only a selective population is prospering.

First Nations possess an interest in resources that were never relinquished at the time of treaty nor during the 1930s and RTA (phonetic) to provinces. Our treaty rights are protected in the Canadian constitution. We are not simply a special interest group.

It is time for us all to recognize the nation of First Nations people.

Thank you. I want to hand this over to our

Elder, Pierre Robillard.

**MR. ROBILLARD:** Merci Joe.

(Speaking in native language)

Thank you.

**MR. TSANNIE:** At this time, we're going to have Elder Adam Charles speak.

**MR. CHARLES:** Okay. Good morning.

(Speaking in native language)

It'll be radioactive all the way to Rabbit Lake, to those mines.

(Speaking native language)

Merci. Thank you. (Speaking native language)

**MR. HARDLOTTE:** Thank you to our Elder, Adam Charles. At this time, we'd like to have an elder from Wollaston Lake, Hatchet Lake First Nation, Emil Hansen.

**MR. HANSEN:** Thank you.

My name is Emil Hansen. Originally, I was born in Pinehouse and I left when I was 14 and then I lived with the Dene people where I learned our language and I've lived there since -- well, I was commercial fishing when they started the mine at Rabbit Lake.

There's a lot of pros and then there's a lot of cons and I understand that our people need jobs. A

lot of our young people are working and there's still a lot of them that are out there that need training. And I think we need more training programs to get more of our people at work.

I understood that when they first started this mine that 50 percent of the labour force was to be coming from the Athabasca region where there are seven communities involved. There are so many workers going up there these days. I don't know if that 50 percent is still there. Cameco can probably speak on that.

We'd like to know the percentage of -- if there's 50 percent of the Athabasca people working in those mines these days. That I like about, you know, how our jobs are, but we need more training programs, like I say, but the other thing is I grew up right across from the Rabbit Lake mine and I've seen things, you know, that I don't like, especially the Eagle Point mine where they bring the ore from underwater onto land and they stockpile it right by the lake and it's a big hill and when there's a west wind blowing, especially this time of the year, the heavy winds, it blows right into the lake all that dust.

When you're fishing out there you can see all that dust. It is like a cloud coming in and then how do we know if it's radioactive or not? They say it's not, but how do we know?

And it's something that the elders are always asking, you know, they're really concerned about their water because their livelihood is commercial fishing and especially the land too where they hunt and they trap. A lot of our people still survive on trapping and fishing and hunting and gathering berries.

And they're really concerned by, you know, is this monitoring system going to monitor all this -- if any radiation is going through the land or to the lake. And they're really concerned all the time, the elders especially because they're hearing so many negative things about uranium which, if it goes in the lake, could sterilize the fish, that they can't spawn anymore.

And if it does, then the river systems -- one goes from Wollaston, one goes north into Lake Athabasca. And another one comes back south then to the Churchill River.

So all our communities on the Churchill River going north above down Ranger Lake river, going east there, the few communities that are on the Churchill River system and we're all really connected, you know, like Black Lake and Stony Rapids, Fond du Lac, they're all down the other river.

So it really concerns the elders if anything like -- because there's so much drilling going



out in the big lake too and they're saying, well, when they pull out their shafts, their drills, what will they leave behind? What's underneath the water? And did any - - is it safe? Are they sure they're not bringing up any contamination to the lake?

And that's a big concern they have. And I think that there's got to be more communication or more information that Cameco -- go out to the communities and give it. I don't know. People still are always, you know, not sure. Are they telling the truth? Are we safe and how long, you know, how long are these mines going to be here?

What if something happens? Then what? All our young people now these days don't know how to commercial fish or they don't know how to trap because they want to go to work at the mines. And since the prices of fish is not that good, hardly any fishermen are left now and unless we can do something better.

Another thing that really concerns me is, since 1973 to today, which is 40 years, there is still no road to the community of Wollaston, which is the most affected of the community, which is just across from the mines, across the lake. And it's really a shame why the people in Wollaston have to, you know, use the barge in the summertime and in the winter and some months, they

have to fly their stuff in which is costly and why aren't the government and the mines trying to help the community of Wollaston Lake which is just across the lake to get a road in to their community?

They started it at one time and then all of a sudden it just stopped. No money, they said. Now where's all the money and the profits that the government are getting from the mining companies? Where does it go?

Where's the revenue sharing that they had promised? We haven't seen anything in any of that? Maybe we do get a few little donations for recreation, but that's about all which is just pocket change for them.

And I think that they have to start considering the most affected communities and to have better roads, and even housing, the people have hardly anywhere. We're really short of housing. A lot of our people live in the cities now because of not enough housing.

And they're not -- I mean, they're losing a lot of our young people to that and can't look after themselves and you know, they can't find a job. And then, they go back and still, you know, they should have more training programs even at the mine site, you know, where they can train people. So they can get them on the labour force.

There's all the other issues that I'd like to speak on, but we don't have that much time and what the elder that talked in Dene said and what the elder that talked in Cree said, you know, I'm right behind them because they understand what and -- they're looking into the future for our children, and I believe that they have to be heard.

Thank you.

**MR. HARDLOTTE:** Thank you to our elder, Emil Hansen and to the two former speakers. I'd like to thank the Commission for allowing our elders to speak and giving them the proper time to make their comments.

Certainly there are a lot of other comments and testimony in the package that we have given you and that that's available to the public. In there, we have comments from leadership from the Prince Albert Grand Council, the Federation of Saskatchewan Indian Nations as well as the Dene First Nations.

And the comments and testimony from elders and youth in Northern Saskatchewan regarding the nuclear industry. There are some concerns that are outlined also in the package and one of those is that there will be more trappers out in the upcoming years than in the past 15 years, simply because the price of fur has gone up. Three years ago the amount of trappers' licences was just over

1,000 that were issued to Northern Saskatchewan residents. Last year it exceeded 3,000 trapper licences and there's more being given out this year.

The Asian market was opened up three years ago for them to purchase wild fur from North America and they were doing that and, therefore, the price of fur has gone up significantly, and our northern residents know that. And the trappers that were doing something else or not being out on the land will be back there. And that is going to create more confrontation between industry and between the traditional land users in northern Saskatchewan, and I just want you to be aware of that.

Also, the Prince Albert Grand Council First Nations want to establish a country foods study, which I had talked to Dr. Binder about, and we do have paperwork on that. But we -- the people ask us, who wants a country foods study that's properly done published? Who's going to finance that? Is the Canadian Nuclear Safety Commission going to finance that? Is Nuclear Waste Management going to finance that? Is industry going to finance that?

The federal government gets money from natural resources that are taken out from Northern Saskatchewan. The provincial government gets money for natural resources that are taken out from Northern

Saskatchewan, and industry of course, makes money. So who would fund such a study? That would be done through the Prince Albert Grand Council but in partnership with academic institutions. But we will continue working on that process as well as a youth and elder program where there is a problem.

At the last hearings in Saskatoon, one of the Canadian Nuclear Safety Commission staff suggested to Vice-Chief Tsannie and I that the youth of Northern Saskatchewan should educate the elders on technological information regarding the internet. And also wireless service, cell phone service, and the programs and the information they can get off there, and then the elders can share their traditional and cultural knowledge with our youth. And we agreed with her that that was a great idea.

However, none of our northern communities, Black Lake, Fond-Du-Lac, and Wollaston Lake, have a cell phone tower. And when -- in talking to one of the former leaders and fishermen in Northern Saskatchewan, all the mines in Northern Saskatchewan, whether they're producing or whether they're in the infrastructure stage, have cell phone towers. They've purchased their own from SaskTel and have that service.

But the people that are impacted long-term

in Northern Saskatchewan are not given consideration. They say that industry has a responsibility to the people. They're concerned about the people, and according to the elder and the fishermen, that should have been -- in his words, that should have been a "gimmie" 10 years ago, and industry should have chipped in along with SaskTel to provide cell phone service to our northern residents for health and safety and information purposes.

So that's another issue that was brought forward in talking to the people of Northern Saskatchewan. And with that there's additional information that's in here and we will stop at that for now and take some questions, and Vice-Chief Tsannie will answer any questions or direct it to the elders that have spoken.

**(SPEAKING NATIVE LANGUAGE)**

**THE CHAIRMAN:** Thank you. You raise a lot of issues and I'm sure there are going to be lots of questions. So who wants to start? Mr. Harvey?

**MEMBER HARVEY:** Maybe coming back to that food study. I would ask the staff, the -- has there been such study in the past and what kind of data you have on food and what will be the plus value of such a study?

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

I will pass the question to my colleague,

Mr. Malcom McKee, and Dr. James Irvin who spoke earlier about the country food studies. So I'll start with Mr. McKee, and then we'll ask Dr. Irvine to elaborate.

**MR. MCKEE:** Malcolm McKee, Directorate Environment and Radiation Protection and Assessment.

As part of all of the facilities that we regulate are required to do human health risk assessments. The human health risk assessments are specifically meant to look at and incorporate traditional land practices, traditional food consumption practices.

The Hatchet Lake dietary survey is a requirement to use that -- the dietary intake values from that -- because that survey is actually quite significantly different from that used, not only by southern diets, but also by other Aboriginal diets. For example, the survey results are quite different from those for Aboriginal communities in Alberta. So we need to -- we ensure that the human health risk assessments are done with diets that are representative of the region.

The monitoring programs are designed to address the near-site issues because the impact assessments indicate that any influences on the environment will be essentially limited to the near field.

The programs include fish monitoring specifically because that would be the primary pathway for

most exposures, and both risk assessments and the fish monitoring data indicate that it is safe to consume fish from water bodies off the facilities.

We -- as I mentioned just earlier, there has been the Athabasca working group program that has looked at -- that has been a community based program organized, essentially, through the -- through Areva and Cameco, and they may wish to speak further on this. That has been a community-based program looking at traditional consumption, looking at country foods, and that data has been available, posted on the web page. And as I said, staff has used that data for some of our assessments.

For example, it was one of the few sources early on when we were looking at selenium that actually had an excellent detection limit level for selenium. So we used that for a lot of background numbers. And now we're pleased to see the Eastern Athabasca monitoring program -- which you'll hear about later -- which is again another country food study that is being done in conjunction with the province and designed -- and the communities -- and designed using -- focusing on the country foods identified by the specific communities.

That's the -- oh, and then, of course, there has been -- Dr. Irvin mentioned the recent moose studies that were done and published in the scientific



literature that showed that it was safe to consume moose from mines with -- moose from close proximity to the mines.

So there's a series of different country food study programs that have been going on and, as I said, we're looking at our independent environmental monitoring program and where we would fit into this network.

Traditionally our focus has been because we regulate the facilities themselves, and the predictions are for only near-field influences. We have tended to focus on -- specifically on near-field issues, but there's no denying that the concerns with respect to country foods come up often, and I think we need to consider where we fit in in this network, then with the independent environmental monitoring program.

**THE CHAIRMAN:** Dr. Irvine, you want to add anything to this?

**DR. IRVIN:** I guess the importance of country food is significant and there's various components to that. Certainly, there's the cultural aspect, connection with the land, the social dynamics within a community, and the impact of family in the use of country foods, and then health.

Also when we were looking at country food

analysis, you need to be looking at changes over time, different parts of animals that different age groups are consuming. You have to look at what chemical constituents there may be found as background in country foods, and then even things like cooking methods.

There have been a number of different studies completed. You mentioned the Hatchet Lake study. There's also the Uranium City one done because of the Beaverlodge site with a nutrition survey as well as some chemical constituents of the food.

I think there could be an approach in terms of looking at things broadly because of the -- not just because of uranium developments themselves, but overall health benefits of consuming health -- of country foods.

Right now there is environmental monitoring as it relates to various types of water and air. There is exposure assessments done, and then there's some human health assessments done as well. And I think rather than using human health end-points as monitoring, the earlier the monitoring can occur, the better. And whether that's air, water, country foods, in a comprehensive manner would be appropriate.

I think there's certainly a variety of different studies that are occurring and it might be quite valuable to look at sort of a scan. Perhaps if PAGC was

going in this direction, doing an environmental scan of where the studies have been done, where are the gaps -- certainly the Eastern Boreal Monitoring Program, which you'll hear a little bit more of either this afternoon or tomorrow, I think will add to that. But it would be a matter of saying, "Where are the gaps and where are the added benefits?"

**THE CHAIRMAN:** Thank you.

We're going to move on. Dr. Barriault?

**MEMBER BARRIAULT:** I'm appalled, really, at the amount of garbage on the trap lines that you were mentioning earlier, and you mentioned specifically the Gunnar site. I was under the impression that Gunnar was pretty well cleaned up now, so maybe the CNSC would care to comment on this?

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

I'd like to clarify a couple of things, Dr. Barriault.

The Gunnar site is still -- the remediation activity that did take place was done through an Order by the Commission to start to address the immediate hazards that exist on-site. As we speak, the Gunnar is a legacy issue. Under current regulations -- we will not allow any operations to be done in that manner.

Having said that, the activities taking place with respect to the environmental assessment with Natural Resource Canada, Saskatchewan Resource Council, and the CNSC -- and we will be coming before the Commission roughly around December with respect to -- first of all, there's an EA determination and then a licensing process.

So the activity is taking place currently with respect to the environmental impact statement and assessment, and that will be coming towards the Commission for approval for the licence.

But you are correct, partial work was done to address the immediate hazards on-site, but the work is ongoing with respect to Gunnar.

**THE CHAIRMAN:** I think the Vice-Chief deserves clarification here.

I think, if I understand correctly, Gunnar and Beaverlodge are viewed as a mistake of the past, and we now -- you ask also whether there is now funds to make sure that you can actually not repeat this mistake. And this is where the financial guarantee comes in and this money is now available to make sure that clean-up will occur after the mine is finished. Did I get this right?

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

That's correct, sir. This is the legacy issue that was being addressed through the funding of the federal government, but now the operator is held responsible for the financial guarantee for the long-term aspect for decommissioning.

**THE CHAIRMAN:** Vice-Chief, do you want to add something to this?

**MR. JOSEPH TSANNIE:** Yes, thanks.

We look at -- just recently, I just toured Gunnar. It was -- it was kind of hard to see how -- what kind of destruction is up there, how much amount of garbage, how much tin, how much waste rock is up there.

I think a couple of years ago there was a commitment, they were going to clean it up, but I think somebody's kind of not living up to the promises or whatever it is that they made.

The EAS, I think that's what it's called, environmental assessment needs to get done. We need to get that site cleaned up before any more contaminations are flowing into the lake.

I know that companies are required to put \$150 million aside for clean-up for some of these mines, and I know in Ontario just recently they cleaned up two tar ponds, or something like that, and it cost \$400 million, just for the two tar ponds.

So we need to make sure, the legacy that we leave behind, that we don't come into the same problems again with -- when mines leave, that we're left with all the garbage. We're begging for people to get it cleaned up.

So I think we need to get Gunnar cleaned up as soon as possible, and again, we want to be included in the decision-making and the process in terms of contracts -- our people up there need jobs.

Even right now, check my Facebook, people are complaining that we need to get jobs, and they're not getting the jobs. We need training, education, and opportunities. We need to train our people, so after when the mines are gone that we can be on our own; we can move on to other things

So I just wanted to highlight that. I want to make sure that people are aware that Gunnar, there's a -- if you don't do anything pretty quick, I don't think, you know, we're going to get that cleaned up.

But winter's coming again, so whatever we have to do, get it cleaned up as soon as possible, the best possible way, the quickest possible, with less impact to our land. With that merci, thank you.

**THE CHAIRMAN:** Thank you.

Dr. Barriault?

**MEMBER BARRIAULT:** Just one more relating to Cameco.

What is the company policy with regards to exploration and, I guess, garbage, if I can call it that, that's used, barrels, oil drums, whatever?

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

And as you've heard, we do take our commitment to environmental protection very seriously. We have very strict policies with respect to Cameco exploration in our contractors, with respect to the clean-up of the sites, the exploration sites, and the packing out of any garbage associated with that.

We've also had the experience of cleaning up, at times, some items that we've come across and packing that out as part of the process, but suffice to say that there is strict procedures that are in place and they are held to both the contractors and Cameco exploration in that regard.

**MEMBER BARRIAULT:** Thank you. Thank you, Mr. Chairman.

**THE CHAIRMAN:** Ms. Velshi?

**MEMBER VELSHI:** Thank you. There was a concern raised about employment opportunities and security of employment and I know Cameco, in your presentation yesterday, you mentioned about the number of northern

Saskatchewan residents that you hire, and that they make upwards I think 50 percent of your work force.

But if you can turn to Slide 16 in CMD 13-H13.1A, where you talk about potential for skilled workers. And I didn't follow that slide, but I think now may be a good opportunity for you to help explain that, please.

**MR. WILLY:** Sean Willy, for the record.

As discussed last night, at peak employment this year we had over 1,700 residents of Saskatchewan's north working at our operations. The context of this is requirements under the surface lease through the province which mandates Cameco hire from the northern administration district. The district is geographically one of the largest districts in the country, 35-plus communities, population of 45,000.

So Cameco over its 30 year history has done a very proactive job of engaging northerners to work at our sites, to the point that the entry level to semi-skilled positions -- so within that range you see a process, mill operators, clerical positions, site services, near maximum levels.

And in our history, we have second- and third-generation workers at our operations, and what you'll usually find is those second- and third-generation



workers strive for better education. It's inherent within us to try to do better than the previous generation, so there's more appetite for education and training.

So the second and third generation are now getting involved in the trades, some of the technicians roles, and slowly we're moving down to more of the professional roles. We're proud to have engineers, general foremen, site superintendents.

But this does take time, and over 30 years Cameco has maximized out these entry level to semi-skilled positions. Our focus now, and what you've heard throughout our presentation, is the focus on education to grade 12, plus accentuating that with university education, technical trades, and technician courses such as the one run in Northlands College here in La Ronge.

So that our challenge -- and that's where opportunities lie, is now in the further downstream professional, technical and skilled trades.

**MEMBER VELSHI:** And does Cameco have objectives or whether your collaborative agreements have certain targets that you have established, on the percentage of your workforce that would be comprised of RSN (phonetic)?

**MR. WILLY:** Sean Willie for the record. The only target that is documented is the 67 percent

target under the surface lease. Through the collaboration agreements, we established a base line for the agreements that have currently been signed and have committees set up within the agreement to then track that baseline and focus the initiatives on removing obstacles, or coming up jointly with solutions to improve those baseline numbers.

**THE CHAIRMAN:** Somebody asked for a number. I thought, in some view, documentation, I thought you -- there is a percentage of northern employees. What is it now, Comeco corporate wide?

**MR. WILLY:** Sean Willy for the record. That number to date is 50 percent.

**THE CHAIRMAN:** So it's still 50 percent, to answer the question. Okay thank you. Ms. Velshi?

**MEMBER VELSHI:** In a related concern that was raised was around, I guess employment security, that people lose their jobs quick or feel that they are let go rather quickly. Is that something that you track and I just wondered if you could share what your experience has been with what the province has experienced overall, maybe in that area, on turnover rate.

**MR. MOONEY:** It's Liam Mooney for the record and I'm going to ask Sean Willy to respond. Before he took his current position with corporate responsibility group within Cameco, he had the opportunity to work at a

number of our sites in an HR capacity, so he's well positioned to provide a response in that regard.

**MR. WILLY:** Sean Willy for the record. Cameco's experience in retention and turnover, our retention is very high, which means our turnover is very low for local community members. As Mr. Yesnik pointed out in his Key Lake presentation, once we have people in our mill operating positions, our turnover is low.

We experienced this especially when Fort McMurray was looking for operators and poaching people. All of our Northern Saskatchewan residents stayed at Cameco because working with friends, family and traditional lands is where you want to work.

So in our experience, there's not many new opportunities that come up through turnover at our sites.

**MEMBER VELSHI:** Thank you. Did you want to comment on that?

**MR. TSANNIE:** Thanks. The people in the North, the Athabasca sector, the most impacted communities that we have in the North, we don't have any training facilities in our communities. We have high unemployment rate in our communities. A lot of people are still on welfare, when they can get a job just next door.

We need to invest into the education program for the people. Simple as that. It doesn't take

much. People don't have to leave their communities and leave their families to get educated down south or they're not going -- they're going to be set up for failure. We need to do more. Why not?

The employment is important for our people, cause we are slowly getting modernized -- modernization to the rest of the society. Our culture ways are no longer there. Yes we do trap, fish and hunt, but the textbook is the way for us, for our survival.

So I think education is key. I know we talked about Northlands College and all these training opportunities. We just had our sector meeting in June and our people were frustrated that we don't have any training facilities. If it's shovel operator, whatever it is, mill operator, why not -- why can't we have our own engineers from the far north?

So I think that training -- the training centers in our communities are important. We need to upgrade the people that we have with their grade 12 and beyond that. We just don't want them to be staying at home not doing anything, so. So any opportunities that are out there, we're looking for some partners and we want to get our people trained and get them working. Thank you.

**THE CHAIRMAN:** Question?

**MR. TOLGYESI:** You know, you raise the question; I'm going by a little bit to that industrial trash on exploration sites. My question is did you communicate with provincial associations like Saskatchewan Mining Association or Exploration Association? I will tell you why I'm asking that? Because in some other jurisdictions, they introduced a clean-up program which they call "Restoration", where associations, mining associations as exploration, government, mining companies also organizations or like "Creebec", "First Air", air supplier and suppliers are commonly financing this program and the communities are contracted to manage and execute the work after a common plan was developed by participation with communities.

So I think that's one of the ways, I think where you're talking about job creation also, but you are talking about cleanup, which is quite important to Natives and the communities. So I think that's one way to do it. I don't say it's only one recipe but it's one approach.

This program is valid now in this jurisdiction for far north. I'm talking with Inuits, and they are looking to introduce similar things with Crees in the middle of the north. That's just a comment, it's not necessary a question.

**THE CHAIRMAN:** Okay.

**MR. HARDLOTTE:** Yes that's a good question. There's some classic cases in Northern Saskatchewan. For instance I'll take *Trapper, William Hansen from Hatchet Lake First Nation*, who was complaining amongst other people that the -- he has his own agreement with the -- with industry and with some of the exploration companies that are operating on his trap line in Northern Saskatchewan.

And they -- after they had talked to him, they started setting up around his trap line cabin. He said: "I couldn't even come and go as I pleased, because there was equipment all around me. But when that exploration company left, they left everything, including the barrels and the garbage. What am I supposed to with that? I complained to the resource officers. They don't come out there to look. The resource officers represent the province of Saskatchewan."

So that's one trapper that's commenting on that, even though he has his own agreement with the exploration company and they give him a little money to set up on his trap line.

And recently, he also complained that the companies, industry, I believe it was one of the exploration companies or Cameco. And it was a new employee that came to him and stated and that individual

was working at Rabbit Lake stated that, his agreement with the companies was now null and void and that they had no obligation to him. So, the trapper went back to industry and I think it was the Cameco head offices, and told them: "I have this agreement, and I expect you to live up to it." Then they told him: "that was a new employee" and he apologizes "and your agreement is still in place."

So, you know there's all kinds of things happening to our Northern First Nations people. And in the past and sometimes in the present, people just accept it. And that's -- that's where a lot of the problems and misunderstandings stem from.

So, and -- one of the previous presenters stated that a lot of times in Northern Saskatchewan, a handshake is a man's word or a person's word and you know, we take it as that and that is not case many times when you're dealing with non-First Nations people.

**THE CHAIRMAN:** Dr. McDill?

**MEMBER TOLGYESI:** Just to comment that I was talking about something which was a legacy.

Now, when you are talking about actual exploration, I'm quite sure I will ask staff, there's an obligation, legal obligation for exploration companies to clean up the site once the work is completed. It's not something which they wish or don't want. It's an

obligation.

**THE CHAIRMAN:** I would just like to remind everybody and it's really complicated. We the CNSC and our staff do not regulate exploration until they come in front of us to become our mine. It's a provincial jurisdiction. I'm sure that Cameco however, can talk about their practice on exploration.

**MR. JAMMAL:** Ramzi Jammal, for the record.

We have Saskatchewan government officials in our Saskatoon office and if you wish you can address that question to them but the President is correct, exploration is not a mining site and it's under the provincial jurisdiction.

**THE CHAIRMAN:** Cameco, do you want to add quickly.

**MR. MOONEY:** Sure, Cameco's contractors and Cameco in the exploration field follow strict procedures requiring packing out of all the equipment and waste and properly sealing drill holes and managing contaminated drill cuttings.

So we have strict procedures in place that are complied with and are subject to checks and balances in that regard as well as provincial oversight.

**THE CHAIRMAN:** Okay, Dr. McDill, do you have any questions?



**MEMBER McDILL:** Thank you. There was a question from the gentleman at the back, second row, with respect to transportation and road contamination. So I would like staff and perhaps Cameco also to discuss how the roads are protected and how that protection is verified.

**MR. JAMMAL:** Sorry, it's Ramzi Jammal for the record. Do you want staff to go first?

The transportation issue that was raised actually is of interest because no package and no transport is authorized to take place or allowed to take place without assurances that the protection is maintained at all times. In addition, every transport activity requires to have an emergency response plan in place and in specific at any road and in specific the transportation between the mines and the mill.

So the monitoring or inspectors do inspect the packaging of the transport, do inspect the roads of the transport and we evaluate the emergency response associated with the transport.

With respect to the highways, as I mentioned, our inspectors did visit the path and as recently as this summer there was an exercise that was done that actually, what I'm going to call a dry run but it was an actual container that was put into a position

and the container was containing only water and they tested the emergency response team from the heavy equipment and the response from the licensee, and our inspectors in association with Transport Canada in association with Saskatchewan inspectors did evaluate and verified. So at all times the monitoring is taking place and no transport is authorized unless it's safe. If there are any spills, this is a reportable event and Cameco is obliged to report the event and to date, I can speak in Canada-wide and in specific, there has been no major incident that caused environmental impact.

**THE CHAIRMAN:** Dr. McDill?

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

On that we are regulated both by the CNSC and Transport Canada as Mr. Jammal touched on and we comply with all the transportation regulations in place. We have an emergency response assistance plan in accordance with Transport Canada's requirements and it has been approved and it's intended to provide onsite assistance to local authorities in the event of an accident involving those goods.

But I think it's also important to frame it that the product in question is shipped in drums that are shipped in closed containers so that the risk is low and has been effectively managed over the life of the

operation of these facilities.

**THE CHAIRMAN:** Okay, just to translate. Has there been any major accident, any spills? Has anybody measured, somebody mentioned if you go and you measure it, there's going to be some high level of radiation; is that true or not?

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

No, there has been no significant events. We do monitor the haul road between the McArthur River and Key Lake operation on a regular basis and it falls within the expected criteria.

**THE CHAIRMAN:** Okay.

**MEMBER McDILL:** But if asked, could you show the elder the data to show that there is no contamination on the haul path?

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

We can show that data in relation to that haul road, for sure.

**MEMBER McDILL:** I'll pass it back to the centre desk. Would you like to see the data? Yes. Thank you.

**THE CHAIRMAN:** Anything else? One other question I think that needs to be addressed and that is

the story about Eagle Point pile and wind and maybe whether the fishing lakes are impacted by uranium and wind. Can somebody clarify that? Cameco, do you want to start?

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

I'm going to ask Kirk Lamont, the manager of Safety, Health, Environment, Quality and Regulatory Relations at the Rabbit Lake Operation to respond. Again, we are committed to the protection of the environment and we take these issues seriously.

**MR. LAMONT:** It's Kirk Lamont, for the record.

The stockpile which was discussed at the Eagle Point mine is -- there's two different stockpiles on surface and in accordance with our environmental protection program, we do extensive surface water monitoring, air monitoring. We do water monitoring in Collins Bay, which is right adjacent to this stockpile and groundwater monitoring as well to ensure that the storage of this material and surface has no impact to the immediate environment.

**THE CHAIRMAN:** Have you ever offered one of those elders to come in and take a look at the operation to see how it works?

**MR. LAMONT:** It's Kirk Lamont, for the record.

We do have routine tours especially with groups such as the EQC, Environmental Quality Committee, that come to site and tour various aspects of the facility, including the underground workings of the mine, the stockpiles, the tailings facilities, the mill.

**THE CHAIRMAN:** Sorry, I should have been more specific to the town of Wollaston, which is right around the lake. But I can see them looking at the pile, they can get concern with that.

**MR. LAMONT:** Yes, on a number of projects that we've had at site, we have also had our community elder from Hatchet Lake who works at the Rabbit Lake Operation as a conduit for information and communication back to Wollaston and Hatchet Lake and he has toured those facilities at the operation.

**THE CHAIRMAN:** That raised a little chuckle from the centre. Do you want to share with us or do you want to...

**MR. HANSON:** I wonder why they have to stockpile it so close to the lake and there's a lot of room in the bush where they could probably bury it instead -- if they're not going to use it again. I know I am really concerned about that stockpile right there because

I feel that there might be radiation or radioactive material in that waste rock. So that's why I'm saying they should move that so the people, the commercial fishermen and the elders, you know, would get a little relief when they move it out along the shoreline and you don't see that dust of cloud all the time when there's a big wind blowing from the west.

**THE CHAIRMAN:** Cameco, do you want any additional thing to say on it?

**MR. MOONEY:** Again, our top priorities include the protection of the environment and the safety and health of our workers and the public. I think that the overall monitoring shows that we see the air monitoring, we see the ambient and emission monitoring showing that by the time you get to the edge of our surface leases that they are at background or very close to background, so we hear the issue but our monitoring program gives us confidence that there are -- we're not having any effects in the lake as described.

**THE CHAIRMAN:** Okay, thank you. I think we've exhausted -- so, before we say goodbye, you have the final word.

**MR. JOSEPH TSANNIE:** I just want to thank the Panel for moving from Saskatoon to Northern Saskatchewan. Thank you for having, you know, we

requested that back in I think it was April when we first met. Just thanks for coming to the north and we still have more north from here too. This is just the beginning.

**(LAUGHTER/RIRE)**

A lot of people think that north is PA. But thanks for coming here. I just want to thanks the elders that here with me and we want to invite you to the summit of Northern communities if there's an interest to coming into the communities to meet with the members itself. You're surely welcome to do that into our communities in the north and we'll have some gourmet caribou dinner and some fish from the lakes that we got there. They're still good. We still eat them and you're welcome to come join us one day.

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

We will break for 10 minutes.

--- Upon recessing at 11:23 a.m./

L'audience est suspendue à 11h23

--- Upon resuming at 11:40 p.m./

L'audience est reprise à 11h40

**THE CHAIRMAN:** Okay, can we get ready to

proceed?

The next presentation is by the Lac La Ronge Indian Band, as outlined in CMDs 13-H13.27, and 14.25 and 15.24.

And I understand Chief Cook-Searson will make the presentation.

Chief, the floor is yours.

**13-H13.27 / 13-H14.25 / 13-H15.24**

**Oral presentation by the  
Lac La Ronge Indian Band**

**CHIEF COOK-SEARSON:** Okay, thank you very much. (Speaking native language)

I want to welcome you to the traditional territory of the Lac La Ronge Indian Band. On behalf of the Lac La Ronge Indian Band and our Lands and Resource Management Board, we would like to welcome the elders and the youth that were present here this morning. I think there's still some present in the audience.

And also the President, Michael Binder, from the Canadian Nuclear Safety Commission and also the members that are present here.

Welcome to Cameco Corporation and their representatives and also the community members and all



those that are presenting and attending these meetings.

Thank you for the opportunity to comment on the proposed licensing renewals prior to their finalization.

Firstly, by way of introduction, I am the Chief of the Lac La Ronge Indian Band and with me today is Elder Joe Roberts and he's here in support of our position as Lac La Ronge Indian Band and he's one of our Council of Elders. With Lac La Ronge Indian Band, we have 12 council members and we have 8 Council of Elders. In each of our six communities, they're represented. So they're our sober second thought and they provide guidance and knowledge to our table.

We represent our Cree members who live in North Central Saskatchewan. We have 19 different reserves and six separate communities. Most of our members live on our reserve communities of La Ronge, Stanley Mission, Sucker River, Grandmother's Bay, Hall Lake and Little Red. We also have many members living in the northern municipalities of Brabant Lake and Pinehouse Lake and many members living off the reserve.

Our band membership makes up approximately 25 percent of the Northern Administrative District. So we make up 25 percent of the population. Our band population is almost 10,000 people and I believe the Northern

Administrative District population is about 40,000 people.

We offer the following points and I also want to mention that I also commend the elders that presented before us and presenting their views and I was also fortunate enough to live off the land and growing up off the land and being able to be fluent in my language of Cree and also knowing our ways of our trappers and our hunters and our fishermen and our people that do live off the land, and having the connection to the land.

We offer the following points. The renewal request is in the traditional territory of First Nations people and we are part of the First Nations who share this territory. We want to make sure we have sustainable economic development models and we also want strong environmental standards for the proposed mines.

Our business entity, Kitsaki, was created 32 years ago. Its mandate has been to foster, facilitate and administer plan development that provides economic opportunities for individual band members as a whole.

Some of the Kitsaki businesses provide services to the mining industry. We have attempted to use sound business practices to position ourselves to benefit from economic development. At the same time, mitigate the contradictions of mining.

Mining has been very positive, but there is

always room for improvement. The roads going into the north are in desperate need of repair. Better roads into the north and into the mining sites and into our communities will ensure safe transport, but also safe roads for our people.

In the past, industry has partnered with federal and provincial governments to improve the road conditions and then this is something that we would recommend for the northern roads is that federal governments, provincial governments and the industries partner together to improve the roads. This way we do have better roads and safer conditions. Right now, it's been raining all week and the roads are in even worse condition than they are when it's not raining.

So it would be nice to have the improvements of roads for sure and it's for the safety of the transport and also the safety of the people that live in the north.

The woodland caribou that we once hunted are considered to be at dangerous low levels. And a report recently released by the SAS-Trans Monitor called the socio-economic of Saskatchewan First Nations members on reserve -- it was written by Doug Elliott, shows the Lac La Ronge Indian Band is economically disadvantaged compared to many other First Nations in the Northern

Administrative District.

We have moved to be one of the more highly successful bands in Saskatchewan, but we still have a long way to go to address our high unemployment rate. The report also shows that we have done a good job at getting our band members ready for employment as we have higher levels of grade 12 graduates compared to other First Nations in the Northern Administrative District.

We are concerned that we may not be designated as a primary impact community or a primary recruitment community. We take great exception if in fact we have been designated anything but a primary impact community and/or a primary recruitment community.

We have the additional concern about transmission line upgrades that are clearly for the benefit of all mining developments in the north. Our First Nation remains concerned about the aesthetics, of the impact of construction of an upgrade on the line and the increasing size of the corridor.

Increased mine development has increased impact on the hunting, fishing and gathering of our band members. Trapping blocks that include many of our band members will be further impacted by this development. The trappers must always be considered in the course of these ongoing consultations.

Our specific recommendations are that the resource sector undertakes the following. Confirm the role of the Lac La Ronge Indian Band as an important partner. Within this recommendation, Lac La Ronge Indian Band strongly urges that the Canadian Nuclear Safety Commission, the province and the resource sector recognizes that Lac La Ronge Indian Band is a primary impact community and/or a primary recruitment community.

That the Canadian Nuclear Safety Commission, the province, and the resource sector, through its communications, clearly acknowledge the role of Lac La Ronge Indian Band as the largest single entity representing the interests of First Nations people throughout the northern administrative district.

Secondly, identify the protocols and framework for interaction and communication between the Lac La Ronge Indian Band and the resource sector. Within this recommendation, Lac La Ronge Indian Band strongly urges that the Canadian Nuclear Safety Commission, the province, and the resource sector report to the Lac La Ronge Indian Band on the number of Lac La Ronge Indian Band members working for their companies as employees and contractors.

That the Canadian Nuclear Safety Commission, the province and the resource sector report on

any and all human resource development agreements, or any such agreements it has signed with other parties, and that it hold discussions with Lac La Ronge Indian Band on that issue.

That the Canadian Nuclear Safety Commission, the province and the resource sector recognize and confirm Lac La Ronge Indian Band, its responsibilities to consult and accommodate, with Lac La Ronge Indian Band regarding resource development issues as their impact on Lac La Ronge Indian Band members, and the band's traditional lands.

Three, fully engage Lac La Ronge Indian Band in its input processes within this recommendation. Lac La Ronge Indian Band strongly urges that the Canadian Nuclear Safety Commission, the province and the resource sector identify a series of meeting opportunities with the Chief and Council of the Lac La Ronge Indian Band.

That the Canadian Nuclear Safety Commission, the province and the resource sector commit to ongoing environmental analysis in order to ensure the physical well-being of the residents in our region.

That the resource sector, with the encouragement of the Canadian Nuclear Safety Commission and the province, enter into discussions and negotiations with the Lac La Ronge Indian Band with the intent of

creating an impact benefit assessment and a formalized agreement in place between the resource sector and Lac La Ronge Indian Band.

That the issue of traditional lands be a component of the meetings and any communication of the traditional lands issue reflects the position of Lac La Ronge Indian Band.

In summary, while we are concerned with the high levels of unemployment in our community, we believe we must continue to work to encourage developments that can create jobs and provide additional opportunities for our band members.

We want to make sure that we have the best environmental standards in the world. We also want the best health and safety standards for the workforce. We want sustainable economic development for our people.

Subject to these continued improvements, we support the renewal of the licences.

Thank you for the opportunity to comment on the proposed 10-year licence extension. We believe that our First Nations, government and industry can cooperate and coexist to our mutual benefit.

My Council and I look forward to a true and full and fair consultation process.

**(SPEAKING NATIVE LANGUAGE)**

Thank you for the opportunity to speak this morning.

**THE CHAIRMAN:** Thank you.

Okay, it's open. Who wants to go? Questions? Ms. Velshi?

**MS. VELSHI:** Do you have a collaborative agreement with Cameco?

**MS. COOK-SEARSON:** Not at this time. We have not consulted with our community members, but we are in discussions with Cameco, but we still have to talk to our community members.

**MS. VELSHI:** Okay. And who designates "private impact community?" Who makes that designation?

**MS. COOK-SEARSON:** I believe the province.

**MR. WILLY:** Sean Willy, for the record. Priority recruitment communities are identified by industry through our surface lease agreements, and in discussions with Lac La Ronge Indian Band, they brought forward information that we will examine and discuss with Lac la Ronge Indian Band through our collaboration, or our agreement discussions.

**THE CHAIRMAN:** So just to follow up, so the province has no role in this? I mean, so it's Cameco who decides what is the primary impact community? Is that my understanding? And it's presumably based on, as you



mentioned before, on where you recruit people, where you do most activities with?

**MR. WILLY:** Sean Willy, for the record.

It's based on a number of -- multiple factors, a couple of those being trapping, hunting, fishing, gathering activities, in close proximity to our operations; potential environmental impacts in areas close to communities; impacts being -- communities and the impacts around being close to major transportation corridors; so we take all those into consideration.

We look at the historical work of 25 years of Cameco working with these communities, encapsulate past decisions, duly consult and formulate these priority recruitment communities.

And Lac La Ronge has brought forward information through our discussion and ongoing engagement that -- as I mentioned earlier, where we are looking at, and through our negotiations of an agreement, based off our 25-year history of leadership from Lac La Ronge Indian Band, proactive business strategies with industry, that we're going to build on and move forward with.

**THE CHAIRMAN:** Not to mention you've got 25 percent of the population, I thought. Go ahead, Chief.

**MS. COOK-SEARSON:** Sorry, I just want clarification from Sean Willy regarding who designates the

primary impact. Can you please repeat that?

**MR. WILLY:** That is, Cameco outlines those communities through our human resource development plans under the surface lease agreements.

**THE CHAIRMAN:** Dr. McEwan?

**MEMBER MCEWAN:** You mentioned in your presentation a concern about expansion of transmission lines, and the impact that that would have? Could you expand on that a little bit and how you worry that it would impact adversely?

**MS. COOK-SEARSON:** Okay, thank you very much for your question.

Well, the corridors of the SAS power lines, the power lines that are going into out communities, and going through out traditional territory, going through the trappers, they're getting larger because of the demand from the mining industry.

That's why the power lines are getting -- the corridors are a bit -- are a way longer than they used to be, way wider, and there's a lot more impact to the hunting, trapping and fishing of our people.

And making sure that or people are consulted, and also accommodated at the same time, because there seems to be a disconnect, and, okay, well, this trapper is here, and making sure that that trapper is

compensated for the loss and use of their traditional territory.

**MEMBER MCEWAN:** Can I just ask perhaps an ignorant question about traplines? Are they fixed form year to year, or do trappers move them from year to year?

**MS. COOK-SEARSON:** Well, since the 1930s, when the national transfer agreement came into -- when the federal government transferred the resources under the national transfer agreement in the 1930s, that's when the trapping blocks were formed.

And then I think they were mainly made -- the families that hunted and trapped in certain areas, they picked out certain trapping blocks, and then there were zones within the trapping blocks. So right now, for myself, I'm in -- I have a trapping block and I'm part of the -- the trapping block is part of my family, I was voted in by my father, and then my father's family also traps and hunts in that area.

So they're into blocks and zones and there's maps available, and they're mainly passed down. And they're mostly -- in our trapping area, for example, that's where my father was born, so it's just -- it's being passed down from generation to generation.

So part of our traditional territory and where people have occupied. So that's how the trapping

blocks have been moved, but anybody can go hunt and trap in anybody's trap -- except for trapping. You can only trap in your hunting block, but you can go hunt and fish in other people's. So we share that territory, but that's how trapping blocks. Is that your question? About trapping blocks?

But they're mainly passed down to family from families and then ---

**MEMBER MCEWAN:** So with the transmission lines and the trapping, what would you see as a satisfactory resolution?

**CHIEF COOK-SEARSON:** That the trappers in that area be compensated for the loss of use and not to be marginalized or to be cut down or to be put down, but to be compensated fairly for what they're losing and what they're giving up because when industry or any kind of activity goes into a trap line, it impacts the moose, the caribou, the wildlife, the trapping, fur-bearing animals, the loss of use of the land.

So all those things have to be taken into effect and then I mentioned in my presentation that the trappers have to be consulted and talked to because right now, when a trapper has a concern, industry will come in there and meet with them and then they'll just talk to them until sometimes until it's too late for that trapper

to get something. So as long as the trappers are compensated and making sure that the trappers have a full voice at the table and also -- because they know where the animals are, where sacred burial grounds are or where sacred sites are, where the medicines are of the land. So making sure that they're talking to them, so they minimize the impact of the trappers.

**THE CHAIRMAN:** Does that also apply to cell towers because we heard from a presentation from Prince Albert Grand Council that they wanted to see more cell towers being spread in all the territories. Is that -- do you have the same concern for cell towers?

**CHIEF COOK-SEARSON:** Well, prior to cell phones and prior to the internet being such a vehicle of communication because right now, we have this presentation being webcast and anybody that's out there can tune in and hear the presentations being made to the Canadian Nuclear Safety Commission. Prior to this we had two way radios. So a lot of trappers use two way radios where that was our form of communication.

So each trappers and each cabin out there had two way radios, but since SASKTEL took that away, the communication was a huge gap and if there was any kind of emergencies on the trap line, then there was no communication or no way to get emergency help or no way to

call for supplies.

So the two way radios have been phased out by SASKTEL. So now a lot more people have cell phones. So probably having more access to communication and the internet and cell phone usage.

**THE CHAIRMAN:** Thank you. Questions? Mr. Harvey?

**MEMBER HARVEY:** Well, my question is addressed -- maybe both, to staff and Cameco. Are you aware of any studies conducted on that type of impact? Transmission lines going through trap lines? And the importance of those impacts? The answer is no.

**MR. MCKEE:** Malcolm McKee, Directorate of Environment Radiation Protection. This is something that the CNSC has no jurisdiction on, but I have been involved in the past in impact assessments being done for any kind of corridor activities such as tower lines or roads and so on are not an uncommon practice.

And I'm not sure if we have anyone with Sask Environment on the line that might want to be able to talk on what's required.

**MEMBER HARVEY:** Maybe I will just turn to the Cameco just to see if they have done such study and they have an idea of the importance of knowing those impacts.

**THE CHAIRMAN:** I'm told that we have somebody from Saskatchewan Environment on line and maybe they can pipe in. Can you hear me? Saskatchewan Environment?

Well, here's telecommunication. Still some glitches.

**(LAUGHTER/RIRES)**

**THE CHAIRMAN:** But I'm sure that I can tell you that transmission studies has been done and I'm sure if people go to SASK Power, you will get all kinds of information about impacts and if you go to SASKTEL, you will get a lot of information about the impact of cell towers. They've done all kinds of studies.

And I'm sure that they would have some protocol about the consultation because they have to consult and go through the process similarly the way Cameco has to do and we have to do. So that would be your best bet.

I don't know if you want to add any further information to that. Go ahead.

**MR. MOONEY:** Sorry, I would just add that, for linear developments for our projects such as roads, connecting, those are part of the assessment package. And it looks at the potential impacts on the environment as well as the socio-economic conditions.

So as part of the assessment process, there is that look through and includes requirements for consultation in that regard.

**THE CHAIRMAN:** So when you decide -- you and the government of Saskatchewan decide to build a new road, for example, is there a process for getting the local communities engaged?

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

And if the Government of Saskatchewan were proceeding with a road, they would be subject to the approval process that may or may not require an environmental assessment, and there would be consultation requirements as part of that process.

**CHIEF COOK-SEARSON:** Mr. Binder, just for clarification, where did you say to get the impact of cell towers report?

**THE CHAIRMAN:** SASKTEL, Saskatchewan Telecommunications. It's a Crown corporation. In fact, SASKTEL prided itself at one time as having the most connected population on earth because of its satellite services.

I don't know where they are now.

**CHIEF COOK-SEARSON:** I'm sorry. I misunderstood you. I thought there was negative impacts



on the environment or the people regarding cell phone towers.

**THE CHAIRMAN:** They have to do some studies every time they want to extend a cell tower, they have to do a study consulting with the local communities. This is from my previous life.

**CHIEF COOK-SEARSON:** Okay, thank you for that clarification.

**THE CHAIRMAN:** Question? Anybody else on question? While I'm here -- Mr. Tolgyesi?

**MEMBER TOLGYESI:** There was -- one of submissions there was a mention of SASKTEL, SASK Power and Cameco, fibre optic cable project. Could you comment on that?

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

And in 2013, Cameco committed \$8 million to a venture with SASKTEL and SASK Power to develop a new fibre network to Northeastern Saskatchewan. That will provide new SASKTEL services and high speed bandwidth to Northern communities and our operating sites.

**MEMBER TOLGYESI:** So, Chief, do you have any comments? It's still working?

**CHIEF COOK-SEARSON:** Yeah, thank you very much on that. We are aware of the new fibre optic line

that's going into the North Central area. And we have been in discussions through our Lands and Resource Management Board with Lac La Ronge Indian Band with SASKTEL and SASK Power on the fibre optic line, and also improving the high speed into our communities, the high speed of internet into our community and also our schools and for our students.

**THE CHAIRMAN:** Okay, anybody else?

**CHIEF COOK-SEARSON:** I just -- and then, further to that comment is just, when these lines go into the communities, it's just making sure that the trappers are compensated properly for the loss and use of the traditional territory.

**THE CHAIRMAN:** Any other questions?

Chief, let me ask you, are you a member also of the Athabasca -- I'm trying to understand all those committees. There's the EQC. There's the Athabasca Group. There's a few other ones.

Are you member in those groups?

**CHIEF COOK-SEARSON:** Yeah, we're part of the Environmental Quality. We have representation on the EQC and we are also one of the 12 First Nations as part of the Prince Albert Grand Council that just presented before us.

**THE CHAIRMAN:** Because everybody coming in

front of us want to have kind of a sound like bilateral meetings with us, with Cameco rather than having everybody, I ask the same question.

Why don't you find a way to deal with some of those issues collectively?

**CHIEF COOK-SEARSON:** It probably stems from our treaty relationship with the Crown because we did sign treaties in 1889. We signed ours on February 11<sup>th</sup> of 1889 in Molanosa, which is just south of here. So it would only be less than one hour drive from here. That's where we signed our treaties. And I think it's based on that treaty and the government-to-government relationship and that's where I would think that the ideology would come in from are the positions of our First Nations. Because we are distinct and unique. In each of our First Nations we have different language groups. We speak Cree, the Far North people speak Dene and they have their own ways.

So just because we're First Nations people doesn't mean we're all the same.

**THE CHAIRMAN:** But I guess what I'm trying to figure out is there's only one Cameco, there are 35 communities. You're not going have 35 collaborative agreements, I assume. There's got to be a different mechanism for Cameco to deal with all those communities.

**MR. WILLY:** Yes, Sean Willy for the record.

Just for clarification, the Athabasca Working Group, or the AWG, was created out of the 1999 Impact Management Agreement.

Moving forward with Lac La Ronge Indian Band, through our agreement we will create a community engagement environmental stewardship working groups to build and continue to build the relationship that has been nurtured over the last 25 years.

But you are correct, we will not be doing 35 collaboration agreements in Northern Saskatchewan.

**THE CHAIRMAN:** Chief, you have the final word.

**CHIEF COOK-SEARSON:** Okay, well thank you very much for your time (speaking in native language) and on behalf of the Lac La Ronge Indian Band.

The main points that we wanted to make in our presentation was for Lac La Ronge Indian Band to be designated as a primary impact community or primary recruitment community, and also that we do support the licences that are put forward to the Canadian Nuclear Safety Commission.

**THE CHAIRMAN:** Okay, thank you. Thank you very much. We might as well start right?

The next presentation is by the English River First Nation, as outlined in CMD 13-H13.18, H14.16

and H15.15. And I understand that Vice-Chief Black will be making the presentation. Welcome.

**13-H13.18 / 13-H14.15/ 13-H15.15**

**Oral presentation by the  
English River First Nation**

**VICE-CHIEF BLACK:** Thank you. Welcome and first of all I like to acknowledge our elders for this morning and the beautiful day that our Great Spirit Lonus (phonetic) to come and listen to our concerns of northern people.

My name is -- for the record, my name is Marie Black. I'm the Acting Vice-Chief right now for English River. We have seven members, one is a chief and six are our band counsellors. We have two communities which is La Ronge reserve and English River, and within the English River we have many other reserves. That's in Northern Saskatchewan as far as Cree Lake.

I have with me Norman Wolverine, who is our land management worker, also very much aware of the treaty land entitlement processes.

I also have on my left-hand side I have Doug Reynolds who's our Vice-President at Tron Power, which is one of our entities, part of English River First

Nation. And I thank everybody here and I just want to thank you for allowing English River First Nation the opportunity to present to you.

Cameco provides employment opportunities for some of our people. They provide opportunities for northern contractors, support for our education and training.

English River supports Cameco licensing renewal for the three mines.

Cameco should be commended for their improvements they had made in their operations at the mill -- mines and mills over the years. They have improved molybdenum and selenium removal from waste water and they have to reduce your sulphide dioxide emissions. Their safety record continues to be very good. Exposure rates for workers are below Cameco's target, which is less than half of CNSC's target at three operations.

Last time injuries are on the decline since 2005. It should be recognized that English River First Nation and Cameco have a long and largely mutual beneficial relationship. But English River First Nation in relationship with the land, the environment, the biota of Northern Saskatchewan is much longer and more intimate.

And once Cameco depletes -- and once Cameco depletes its mining reserves and leaves the area, English

River First Nation will continue to be there and continue to have intimate relationship with the land, the environment and the biota of Northern Saskatchewan.

As such, we are the stewards of the land. We live here. We have an inherent responsibility to the land. That is why we ask to be more involved in the decision-making processes concerning developments in Northern Saskatchewan within our traditional lands.

English River acknowledges that a recent Collaboration Agreement was executed with Cameco and Areva. It is anticipated that this arrangement will provide future improvements in the relationship between English River First Nation and Cameco as the implementation process occurs.

In the shorter-term, as part of a longer-term relationship, the comments included in this presentation would accommodate all parties in reaching their intent and improve communication, an understanding of each party, aspiration for their members and businesses. To that, and we propose the following plans for improved communication and more involvement.

In the communications area, there are concerns that communications are relatively one-sided; that Cameco provides information about its activities but does not seek advice. That in northern communities,

because of the language barrier, do not fully understand radiation, about mining activities or planned reclamation.

Northern workers are afraid to bring concerns to their attention after supervisors for the perceived fear of being fired. It has been reported that the charter airlines do not show respect and patience to First Nations workers.

Communication plan. English River First Nation suggests that the following plan be reviewed by Cameco, revised in consultation with English River, and be adopted to enhance the communication process.

(1) Cameco and their regulator should actively seek advice from English River on a seeding of new developments, reclamation procedures and plans, human resources, traditional knowledge and impacts on the environment.

(2) English River commits to providing knowledgeable individuals who have provided constructive input for a variety of activities including environmental impacts, reclamation, First Nation and Northern Saskatchewan cultural and traditional knowledge.

(3) Cameco should retain an ERFN elder ombudsman person at each mine site or share an elder between two closely located mine sites. The elder ombudsman person will act as a liaison with the First



Nation's workers.

Employees should be able to go to an elder ombudsman to discuss in private any site safety employment issues without fear or concern of exposure or loss of employment. Elder ombudsman person would then pass the concern to the appropriate Cameco representative. Together the elder and the Cameco representative would follow-up on the issues raised or concerns expressed.

(4) Cameco should adopt a whistle-blower policy which will encourage employees to bring to the attentions of supervisors and managers, issues and concerns, without the fear of suffering reprisals, or losing their jobs.

(5): Cameco and the regulators should translate their public information materials into Dene to make it more accessible for northern Saskatchewan residents. Radiation in the mining process needs to be explained in everyday language, in the Dene.

ERFN has a number of communication resources, such as the radio and T.V. station, mailing list for letters to members, and the ERFN web site that can be made available to Cameco, processing and disseminating information.

Cameco has developed a systematic approach to training, SAT, which is used at McArthur River. As

part of this program training, it should also be translated into Dene. This would greatly assist understanding and be less intimidating to older First Nation workers.

In the north, when training programs are developed and created, and training material written, cultural differences must be taken into account. ERFN can help with this.

(6): Cameco should provide assistance with chartered airlines relations, to arrange for a better system of communicating their arrival and departure times, and to assure treatment of northern Saskatchewan passengers with respect and courtesy. There are many instances where employees arrive on time, or well in advance of many scheduled departures, only to find the aircraft delay. This affects a person who brings employees to the air strip and causes them to be late for their work.

At other times, the plane is early and leaves before the scheduled departure time, without waiting for the personnel to arrive, without waiting until a previously-scheduled departure. This causes issues with their employers in the mining companies.

(7): Cameco and a regulator should include in any binder of materials regarding an approved mine the

agreement between the province and the mining company with respect to a surface lease, and all conditions placed on lease, and provide a complete copy to ERFN.

In the environment aspect, environmental impact, concerns have been expressed by some band members that a road between Key Lake and McArthur River maybe have contamination due to the transport of ore, and wind transport of dust from the mining areas.

Plan: Arrange for independent monitoring twice annually of the road and the right-of-way, and provide a copy to English River First Nation.

Report about spills: From time to time, mining and milling operations experience a reportable spill. ERFN should be immediately informed of these spills.

Informing the ERFN would engender trust between Cameco and English River. This trust could be relied upon when something serious would occur.

Plan: Inform the elder ombudsman person of reportable spills, what was spilled, where it was spilled, how much was spilled, and what corrective actions were taken.

Reclamation: Just as southern residents would be upset if someone were to disturb the background, so are our northern residents concerned that their

background is disturbed. The ERFN back yard is our traditional lands. This is where we live, work and play.

We understand that waste pile water has escaped, and is escaping, at Cluff Lake. Questions occur: How does Cameco cover technology compare? What is the likelihood that their waste rock piles will suffer similarly?

We would like the respect, courtesy, and consideration of being involved in reclamation plans. Our knowledge of the land will help ensure greater success in reclamation.

Plan: For reclamation purposes, to have real discussions with the northern people most affected by the closure of the site, and the real ability of the people to have input in how this process will occur.

At the opposite end of the process, ERFN requests to have more meaningful input and understanding and real consideration of where plants, mills, roads are located, to avoid or reduce the disturbance to animal migration, calving grounds, cariboo areas, medicine plant areas, fishing, et cetera.

Construction of product recovery circuit: Cameco completed a construction and commissioning of our product recovery circuit at Key Lake. The circuit is for the recovery of uranium from by-products in Blind River

and Port Hope.

Questions occur: Will radioactive by-products be transported back to Key Lake from these facilities? What will be transported from Blind River and Port Hope? How will it affect us?

Plan: Inform and include ERFN in plans to recover uranium from by-products from Blind River and Port Hope; the elder ombudsman person would be included in the planning process.

Licence renewal period: ERFN does not have any concerns with extending the licence period up to 10 years. There should, however, be a mid-term review plan. Schedule a mid-term review for the fall of 2018. The review should include a follow-up on the implementation of our suggestions, plans described above, and anything else that might be raised in a five-year interval.

Support for Cameco: English River First Nation supports the renewal of Cameco's licence to operate Key Lake mill and associated facilities to produce uranium concentrate, McArthur River mine to produce uranium ore, Rabbit Lake uranium mine and the mill to produce uranium concentrate for a 10-year period.

Respectively submitted to the CNSC public hearing, by ERFN, with respect to Cameco's licence renewal October 2<sup>nd</sup>, 2013.

**(SPEAKING NATIVE LANGUAGE)**

**THE CHAIRMAN:** Thank you. Thank you very much. The floor is open. Mr. Tolgyesi?

**MEMBER TOLGYESI:** I have two questions, Mr. President.

One is, to what extent you consider your community is informed and aware of uranium mining impact, and long-term needs for waste storage?

**MS. BLACK:** We have personnel from Cameco and Areva coming to our communities, explaining to our band membership what occurs, what their plans are for the next 10 years. They're done that for the last -- they've come to our community for four -- four times this year, explaining to our band membership what is going to occur within the 10-year projected plan.

**MEMBER TOLGYESI:** It was done to the whole community, or it was done to the band council?

**MS. BLACK:** Both, both the band council at English River First Nation.

**MEMBER TOLGYESI:** And my second, you signed an agreement with Cameco. Do you have a feeling that there was urgency and/or pressure on you or your community to sign this agreement?

**MS. BLACK:** This agreement was worked on for four years. Two chiefs passed me, prior was Chief

Ralpaul (phonetic) and then Alfred Dawatzare, and it took us four years to come to the decision to go ahead and sign the agreement, with the blessing of the elders.

We had informed and told our band membership, but, like I said, not everybody attends the meeting, so we -- because it took a four-year process, so on May 31<sup>st</sup> of this year, we signed at English River.

**MEMBER TOLGYESI:** Cameco, do you have any comments on that?

**MR. WILLY:** Sean Willy, for the record.

I support it did take four years for ongoing negotiations, and on both sides. There was no timetable to complete. With these agreements, they are commercial in nature, but they're really based on a relationship, and we respected English River leadership and their elders' timetable to move forward, and at times, to delay.

**THE CHAIRMAN:** Okay. Dr. Barriault?

**MEMBER BARRIAULT:** I guess one of the concerns I have, really, when I read under "Communications" that people are afraid to bring issues of concern with -- well, I would suspect is safety at the mines, with the fear of being fired. Is there whistleblower policies with regards to Cameco?

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

record.

And protection of the environment and the safety of our people and the public are our top priorities.

With respect to the concerns raised, we do have an ethics hotline. We have an ethics policy that all employees are required to sign as part of their employment. The ethics hotline is confidential and allows for investigations that have profile up to and including the members of our safety health environment committee of our board. So they are taken very seriously. They are investigated and resolved to the satisfaction of the complainant.

Besides that more formal process, we do have strong safety culture at all three of our sites that are up for re-licensing today and part of that is a very strong reporting culture.

So reporting is encouraged and in that conversation there is also the Occupational Health and Safety Committees at each of our sites. Those are a statutory requirement and it allows yet another avenue for people to raise issues if they would like to see them pursued further.

**MEMBER BARRIAULT:** Thank you. Would you care to comment on that? Is that satisfactory for your



concern?

**MS. BLACK:** Basically, I brought up this concern as I've conversed with Cameco personnel in the past in regards to a whistle-blower policy. A lot of our band members that are working up at Key Lake mine, McArthur, Cigar and McClean, have raised issues and brought those issues forward to us.

They don't really want to go to them because either they are feeling below management. They don't want to step over anybody's boundaries, but many concerns that they have are brought forward to us and then many times I have conversed with Cameco "This is what we should do" so we could eliminate. And then the productivity of Cameco will escalate further if we don't have this many issues.

Let's put in a system that it will alleviate and eliminate many of the processes that they go through. And it's not only that -- sometimes it is because of their relationship at home and things that they don't know how to talk to somebody. That's why I said there should be an elder ombudsman person in each mine site, so these people will feel at ease so they can talk to somebody instead of somebody they don't know. So that's this recommendation and a suggestion ERFN is putting forth to Cameco.

**MEMBER BARRIAULT:** Thank you, thank you.

**MEMBER MCEWAN:** Sorry. Could I just ask a follow-up on that? Does your hotline have multilingual capability? Because I think I heard you say earlier that there was sometimes a language barrier in trying to put these questions forward?

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

It does not have multilingual capability but it is -- the question was asked around whistle-blower. It is -- the ethics hotline is designed to be that whistle-blower protection in that regard.

And we have found that employees are prepared to use it and raise issues of concern. It's been effective. It's only -- it's been in place for a number of years now and is being refreshed at present.

**THE CHAIRMAN:** Staff -- Keith, do you know that also you -- the people can actually -- the employees can actually approach CNSC inspectors and CNSC staff? I just wonder if anybody ever approached some of our inspectors and tried to -- particularly on safety concerns. Staff? Anyone? Or you don't ---

**MR. JAMMAL:** Ramzi Jammal, for the record.

There are a couple things I just -- on the whistle-blowing aspect, just to make sure that we're not talking about labour relation issues and productivity of

operations for Cameco. I just want to clarify this. So that's Cameco's and the English River Band to settle how they approach from labour relations aspect.

But we have our project officers with us here that will respond to your question with respect to any approach with respect to safety, to our inspectors.

**MS. EATON:** Sarah Eaton, for the record.

As I mentioned earlier, when we are on inspections we do talk to staff alone without the licensee present. So if they did have a concern they can bring it.

During my inspections at McArthur River there has been no safety related concerns brought forward by employees, but there are numerous mechanisms for them to do that. Either to myself or also to the occupational health and safety committee.

**MR. WILLY:** Sean Willy, for the record.

In addition to the ethics hotline we also have, as we alluded to in our presentation, our community liaisons which are focused within the community. English River First Nation has one.

And through the Collaboration Agreements we have established sub-committees which will also address and be able to bring some of these concerns forward in really, in an English River perspective, and we hope to work on them jointly moving forward.

**THE CHAIRMAN:** Dr. Barriault?

**MEMBER BARRIAULT:** I can't help but wonder if there's not a cross-cultural issue here that some people are afraid to bring issues forward. Not because of any -- a real reason, but perceived reasons really.

So I'm wondering if education couldn't address some of this, really, with regards to explaining to the staff that, you know, it's okay, if you have an issue bring it forward, we want to hear about it. I don't know if you are doing that or not but it was just a comment. Thank you.

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

And maybe I'll ask Les Yesnik, one of our general managers we have here, to touch on the reporting culture at his operation and their efforts to ensure that it's strong.

**MR. YESNIK:** Les Yesnik, for the record.

Absolutely I support the discussion so far here. There is many avenues for communication and we endeavour to ensure that we have those clear lines of communication to our employee group and to the communities.

The reporting culture at the Key Lake operation is excellent. We have -- any time there is any event or any issue that is captured it's -- depending on

the level of that event, it's either trended or investigated at the appropriate level.

And the right individuals are involved in that investigation too, to find cause, to look at the risks of future occurrence and ultimately find resolution through corrective actions which we ensure prompt resolution to.

Beyond that, when it comes to reports in the operation and from the operation's perspective, the expectation of the team at Key Lake, including my direct reports and myself, is that we are getting on the floor and talking with employees.

And my observation is that we have built that relationship of trust with our employee group. Quite regularly I'm speaking directly to our employees on the floor or they are coming to my office and I have an open-door policy. They will bring concerns. We do respond to those concerns.

And could we certainly -- could we do a better job of communication? I think we can always work towards improving those lines of communication. I think we do an excellent job and, you know, we'll continue to look for opportunities to improve upon that.

**THE CHAIRMAN:** Thank you. Other questions?  
Ms. Velshi?

**MEMBER VELSHI:** Question for staff. The intervenor has recommended a midterm review and I wondered if staff could elaborate on your recommendation about the annual review as part of the annual performance review. And how the scope and the public's involvement in that would differ from the midterm review.

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

The frequency of our report is much more frequent, so it's an annual basis, so that's one of the major differences. And the midterm report, we don't have to wait for the midterm cycle to address it.

You are raising a very good point from a communication perspective. Where the annual report -- starting as of last year -- where it is performance report relating to every licenced facility under -- for uranium mines and mills, to be specific.

And the public has an opportunity, as part of the process, to intervene with respect to the report itself. So the process is just like the current CMD process. We put -- the staff will put their CMD in the public domain and then the public and intervenor, or any interested party, will intervene based on the information in CMD. And they can raise any questions pertaining to the operations and to the report itself.

So that's one of the major changes that the CNSC has done, the frequency has been updated on an annual basis. Number one with Number two is the public intervention associated with the information in the CMD. And then third, is the report itself is performance of the operator and the licensee against our regulatory framework which means the Act, regulation and the licence conditions. And any follow up actions would be reported back to the Commission.

So environmental reporting will be included, radiation dose to the workers, public information program, all these will be in the annual report that will be produced by the CNSC staff to the Commission to review.

So it will cover some of the SCAs and then we're -- as we get feedback from the Commission on improvements, we'll continue to improve.

In summary, the report is a performance report of the licensee, addressing the implementation that is put forth by the Commission in the licence and the public will have opportunity to provide input.

**THE CHAIRMAN:** Okay. Let me translate all of this. Instead of five years, they're going to have annual report, annual report. And in -- we are actually going to come to the communities also in a cycle yet to be

determined. But there'll be an annual progress report on safety of nuclear mine.

**MEMBER VELSHI:** So my follow up that is that the scope would -- because I haven't been involved in a mid-term review -- so the scope of the annual and the mid-term reports is the same. And the public participation and the availability of the participant funding, for instance, is that different or would that be the same as well?

**MR. JAMMAL:** The reports will be -- Ramzi Jammal, for the record.

The reports will be very similar and we're focusing on performance elements relating to the licenced activity.

On the participant funding program -- okay, I'm just going to stick my neck out here, from -- perspective, it does not cover the public input with respect to the annual report because the public funding program, participant funding program is unique and specific to a triggers. But at the same time, the Commission can decide what needs to be put in place ---

**THE CHAIRMAN:** Well is the Commission -- if the Commission is moving to a 10-year licence, he'll have to decide when does public participation occurs. So this is still a work in progress.



Other questions? Monsieur Harvey?

**MEMBER HARVEY:** And my question's addressed to Cameco. Their communication, I'm surprised to see that the second sentence in that paragraph there, Cameco provides information about its activities but does not seek advice.

You sign agreements with many communities and specifically with the English River and I would like you to comment about that sentence and maybe give an example of advices that have been given and that you have followed.

**MR. WILLY:** Sean Willy, for the record.

We make a concerted effort always to engage our communities in healthy two-way dialogue and follow up best practices in communication with our stakeholders.

As we've mentioned throughout, community engagement is an ongoing process and its next step, through these collaboration agreement, builds on that relationship. And there will be components within that through our joint communication committees, through subcommittees focused on environment and engagement activities. Community members will set the agenda for these formal discussions moving forward within the agreement.

One of the best examples I have is with the

current Millennium project and the numerous meetings we've had with English River, their Elders, their members of their Environmental Quality Committee. We've done onsite visits, obtained traditional knowledge, utilized that traditional knowledge within our project plans and designs in our environmental assessment.

**MEMBER HARVEY:** Vice-Chief you have a -- you want to comment?

**VICE-CHIEF BLACK:** Well, just for the record, Marie Black.

Just to make you aware, we have reserve lands at Cree Lake which is one of the biggest lakes up north there. And it's close to the mines and, like I said, those are our traditional lands.

We also have a new reserve at Kilometre 160 on the Key Lake Road where our band members and our youth go yearly for hunting and gathering and all that traditional knowledge that we pass on to our youth. And those are the concerns that are coming from our band membership. How can you -- we work together to better work as a unit for the betterment of tomorrow's future children?

So those are -- we have many reserve lands right in our traditional territory, not only English River. And, like I said, we have one at Cree Lake and the

better communication that we have with Cameco and industry will eliminate innuendos that are already going through the windows.

So those are the things we like to collaborate with Cameco and work together for the betterment of tomorrow.

So I -- like I said, as a band member I wear two hats. Now I wear it as a Vice-Chief. Those are my concerns coming from my band members from La Ronge and the urban areas. So that's why I'm here to present these concerns.

**THE CHAIRMAN:** Thank you.

Dr. McDill?

**MEMBER McDILL:** Thank you.

You heard the -- my question with respect to the haul road earlier, were you eased -- were your feelings, concerns eased by the answer or do you want more information?

**VICE-CHIEF BLACK:** For the record, Marie Black.

Yes, I have heard your question and we do have access right through the gate going through McArthur River. Like I said before, we go hunting and gathering around from those areas, not on the road but sometimes the slurry comes around there and the questions are coming

from the elders are -- that some spill or does it go in the wind?

Because many times I've asked about the vegetation around there. Why does it look like this and how come like that? But the answers have always been brought forth to us with answers regarding the emissions that are coming from the mills.

But we just want to be reassured that the road from McArthur to Key Lake mine are always monitored. I heard the -- I heard somebody say regular monitoring but it should be a weekly monitoring so the people are reassured that it's not contaminated within that 60 or 65 kilometres between those two mine sites.

**MEMBER McDILL:** Maybe I could ask staff if there's a role they can play in this kind of providing data or providing reassurance or identifying problems.

**MS. EATON:** Sarah Eaton, for the record.

There is a haul road that connects McArthur River and Rabbit Lake and there's slurry trucks -- sorry, and Key Lake, there's slurry trucks that go along that road and also covered haul trucks that carry mineralized waste to Key Lake.

The road is sampled as required for CNSC requirements in the license condition handbook to be monitored every three years. They do gamma checks and

also soil samples.

And what we see after the operation at McArthur River, so 10 plus years, is that we don't see an increase in those levels compared to background levels.

In that -- with that being said, if there is a transportation incident, the licensee is required to notify us of the incident. They're also required to do an investigation and ensure the area's cleaned up. So if there is a spill, they have to ensure that the area's cleaned up, all that material is removed.

**MEMBER MCDILL:** If there's a spill and there's a response, are the communities informed by anybody?

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

The semi-private road between Key Lake and McArthur River, as already stated, we have thorough monitoring on it and report to agencies.

With respect to spills and mitigative actions, those are reported to both our federal and provincial regulators. We provide updates on spills to the EQC at regular meetings and actual releases to the environment and mitigation are reported on to -- through our public website.

**MR. JAMMAL:** Ramzi Jammal, for the record.

The licensee's required to have the public

information program in place and proactive disclosure. And the information is once -- if there is a spill or any incidents -- events, they will report to the CNSC, and the CNSC put on our website those events in public domain. And a lot of times, we do it immediately as soon as we receive the information.

When I say "immediately", within hours or days, depending on the information that we're required to have.

You're asking a very valid question, is -- all I can state at this point is the -- for the intervenor, they can register with the CNSC so that the info account, once the proactive disclosure is -- has been posted, then they get the information directly.

But they are -- there is requirement on the licensee to engage the local communities in accordance to our regulatory guide for public engagement and proactive disclosure.

**MS. BLACK:** Thank you for that answer.

Another question that I may have for Cameco is, as you are aware, are people always go up to the McArthur River every year for moose hunting and berry picking. And many times, the cranberries that they pick, they're questioning are they contaminated because many -- some years, there is abundance. Some other years, there's

none.

This year, there was not that many, but other years, there was quite a few that they picked.

They're just wondering if they could be reassured that those berries are not contaminated, the ones that they bring home from McArthur River.

**THE CHAIRMAN:** Cameco?

**MR. MOONEY:** I'm going to ask Kent England to provide some more details in that regard.

I'd also note that the provincial representative, who will be here later, is going to speak to part of the boreal watershed initiative at Eastern Athabasca Regional Monitoring Program, which carries with it a country foods component.

**MR. ENGLAND:** Kent England, for the record.

As Liam mentioned, the Eastern Athabasca Regional Monitoring Program does have a country foods component and looks at berries, so that can be -- they do take the chemistry for those berries. And that will be presented on their website.

In addition, we have a monitoring program that monitors near and far field within the McArthur River environment. And those berries, once you're off our surface, are safe to eat. They are near or at background levels.

**MS. BLACK:** Thank you for that information.

I'll surely share that with the Elders back home because some have picked up blueberries and cranberries this year, so I'll reassure them. And the data should be shared with the Band membership to reassure them that the contamination level of anything that we bring home is safe for our children and grandchildren to eat.

**THE CHAIRMAN:** Okay. Also, I think they deserve an answer on a couple of other questions that you've raised, and I'd like quick replies, please, because people need to go out for lunch.

So first of all, what is the problem with the transport between Blind River and Port Hope? Somebody, please explain to me what is the concern?

What material actually goes between -- that comes back from Blind River and Port Hope?

Cameco?

**MR. MOONEY:** It's Liam Mooney.

We receive a Calcine by-product of the production processes from the Blind River refinery and we receive another product from the Port Hope conversion facility tasking fluoride.

It's shipped back in a similar fashion, drummed in a container and safely secured as the yellow



cake is shipped from our Rabbit Lake and Key Lake mills.

That process right now is being looked at for its economic feasibility and assessed if Cameco is going to proceed with that project.

**THE CHAIRMAN:** But is there any kind of a safety concern?

I'm trying to understand, what is the material inside those drums?

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

It's -- the product that's being shipped is safely stored and we have an emergency response plan that would be in place to address if there were any transportation incidents with the product coming back.

**THE CHAIRMAN:** Staff?

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

There has been, to date, no reports of events, number one.

Number two, very quick answer is, they must comply with the transport of dangerous goods of Transport Canada and CNSC if it's chemical or radiological.

**THE CHAIRMAN:** Yeah, I know, but you've got something missing there. I don't understand ---

**MR. JAMMAL:** There has been no issues, no.

**THE CHAIRMAN:** --- normally, from Key Lake,

stuff goes to process. What comes back?

**MR. LeCLAIR:** So the material that comes back is basically very similar to the material that went there in the first place, so these are waste by-products from the processes.

**THE CHAIRMAN:** That gets reprocessed?

**MR. LeCLAIR:** Staff did assess the application, what they were looking at doing. It's well within their current activities, the current hazards and the risks, so it's not an issue from the health safety environment point of view.

The issues in this case are more economical with regards to what they're trying to do. But we did review that, and we did assess what they were looking at doing.

It's not introducing any new risks or new hazards.

**THE CHAIRMAN:** Okay. I also -- I don't think we should ignore the statement that something is wrong in Cluff Lake even though that's not part of the issue here.

Very quickly, can you update us whether that's a real concern or not?

**MR. LeCLAIR:** The -- Cluff Lake has been decommissioning. At Cluff Lake, we're looking at the

cover performance of the Cluff Lake waste rock pile. The waste rock pile at Cluff Lake is known -- pile is known to be acid-generating.

This is what we see in particularly some of the longer-term waste rock piles, but it has a cover -- vegetated cover that's monitored. It's part of the decommissioning plan, and we're monitoring it and it's being controlled.

And similarly, we've been doing the same thing with any waste rock piles that need to be managed at any of the other sites.

**THE CHAIRMAN:** So there's no water that escaped and caused some contamination here. That's ---

**MR. LeCLAIR:** It's all understood with regards to the infiltration through the waste rock pile and how it's moving into the environment. We know what's going on. We're monitoring it and we're on top of it.

**THE CHAIRMAN:** Okay. For Cameco, there was a proposal or at least a question whether any of your training material gets translated.

Do you do any translation to ---

**MR. WILLY:** Sean Willy, for the record.

We do not currently do translations for on-site training materials due to the fact that we feel that English is the working language and, for safety reasons,

we will stick with English as the working language on our sites.

However, through our pre-employment training programs with communities, our involvement with education with communities at the front end, we will work with the communities through their trust funds to build home language or indigenous language within their learning curriculum at home prior to the coming to our work site.

But our work site, because English is the working language, we feel, for safety reasons, we have to maintain that.

**THE CHAIRMAN:** Okay. My last point, Chief, before you get the last word, is what is the issue with this charter airline? It doesn't sound like a good PR if you don't treat your customer very well.

So what is the problem here?

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

I'm going to ask Sean to expand on that regard, but we do have some requirements about timing that we strictly enforce. I, myself, have been forced to miss flights for showing up at the wrong time.

But nevertheless, it's one that's -- is in place for safety considerations and also trying to coordinate our northern pick-up points.

There's a fair bit of work that's done to

make air transportation available to the remote communities in northern Saskatchewan, and the coordination in that regard sometimes requires some fairly tight turnarounds.

**THE CHAIRMAN:** But is the airline actually kept to a tight schedule?

In other words, the accusation here is that sometimes they don't. They leave people stranded.

I mean, I just want to make sure that you tell the Chief whether that's true or not, or just hearsay.

**MR. WILLY:** I think -- Sean Willy, for the record.

I would presume that many of the instances where either planes are delayed are due to weather. Because our planes hop from community to community, and those communities are, you know, distances from each other, weather in one community could be different than the other, thus delaying it.

In addition to this, the community airport structures are just that, just structures. And so there isn't a board to be updated as the flight goes forward.

I do think this case is in a minority situation. We do -- if an employee does miss a flight, they are -- we do look at the reasons behind that and

discipline, but we do have a step scale system within that discipline that you don't just miss one flight and are dismissed. We would like to do the root cause of why those instances occur.

**MR. YESNIK:** Les Yesnik, for the record.

Just to add a little bit of context to that, we have certainly a regular schedule for pick-up. And through this past licence period, what Cameco has invested in with our carriers is a Wide-Angle Augmentation System, or WAAS system, that has lowered our ceiling at the site for approaches so that we can, in fact, bring aircraft in safely at -- with a lower ceiling.

So that has really reduced the number of flight delays and our flight carriers also have done significant work to reduce the mechanical delay type issues. So although it's not perfect, we have that certainly mitigating, reducing the number of flight delays. We also have a flight line that does carry accurate information on flight -- if there is a delay, new departure times, and that sort of thing. I'm not saying it's perfect, but it certainly has improved over the past two to three years.

**THE CHAIRMAN:** Over to you Chief.

**CHIEF BLACK:** It was just this concern for myself, if I brought my son to work at 10 to 7:00 and then

I had to be back at work at a certain time. Some of the employees and their spouses have incurred this difficulty of bringing their spouse to work and then they are disciplined at their other work because they were late because they -- those are the schedules; and we do have a shelter where the employees work -- if they're working for Cameco, if they're flying into the mine sites. They're waiting there and there's no communication between the airline and themselves. So they're getting a little bit frustrated, the day that I missed my plane flight.

So I think there's just a communication gap there, between Cameco and English River, that we need to enhance so this doesn't continue over the years. So it's just a suggestion I'm bringing to them so we can work at it as part of our PR, and I'd like to invite Doug Reynolds, which Des Nedhe is part and arm of English River. It's an entity that we own. It's a construction company. I would like to give him the mic just to do a follow up on some concerns that they may have.

Thank you for your time.

**THE CHAIRMAN:** Quickly please, because there are some commitments that people made.

**MR. REYNOLDS:** Thank you. For the record my name is Doug Reynolds, I'm the Vice-President in Corporate and Social Responsibility for Des Nedhe

Development.

Des Nedhe Development is owned by English River First Nation. Des Nedhe is the owner of several successful businesses which core -- which provides services and good to the mining industry. Cameco Corporation is our primary customer. We have a long standing relationship with Cameco Corporation going back 25 years. Today I offer my observations of this relationship.

I myself started with Tron Power in 2004 as a safety officer working at the various mine sites. Continuing my educational background with opportunities that were presented to me, I achieved my Masters Degree in project management. I completed various courses and training also to enhance my expertise in different areas; policies, procedures, director safety training, which brought me to Vice-President of Tron Power.

Currently I am in my second year of Business Administration as well. Previously mentioned, today I am the Vice-President of Corporate and Social Responsibility for Des Nedhe, which oversees all of our companies. I am also a member of the English River First Nation.

To keep this brief, the relationship has grown in three ways. The business relationship and trust



has grown over the years to the point where it can have very blunt honest conversations about our working relationship. It is not perfect, but we still experience difficulties. But we can also sit down and discuss them in a positive way.

With respect to protecting the environment and promoting safety, I can say that there is a comfort level with how these are managed to reduce impacts on our traditional lands, on our community, and our people. Again, when concerns emerge we can sit down and discuss these proactively.

It is important for our young people and our community members to have access to a high quality career and job. We have seen an increase in employment in the last 10 years. We also need existing employees to grow and learn more, to see further opportunities, and to see this improve as well. We see Cameco as a very important partner in this.

Finally, we have just recently signed a collective agreement with Cameco that captures the last 25 years of our relationship, which establishes clear goals and objectives to improve our relationship far into the future. We are very pleased with this overall; and again, for the business side of it, with respect to the 10 year licence renewal, we support Cameco in this.

Thank you.

**THE CHAIRMAN:** Thank you. Anybody has a question? So that was very clear. So thank you, thank you very much.

We will break for lunch. When are we coming back?

**MR. LEBLANC:** In one hour, so 2:00.

**THE CHAIRMAN:** For 2:00, we'll come back. We'll reconvene at 2:00. It's almost an hour.

**CHIEF BLACK:** Merci, thank you for allowing us to come here.

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

--- Upon recessing at 1:03 p.m./

L'audience est suspendue à 13h03

--- Upon resuming at 2:03 p.m./

L'audience est reprise à 14h03

**THE CHAIRMAN:** Okay, we are ready to proceed. The next presentation is by the Canadian Nuclear Association as outlined in CMD 13-H13.12, 14.11, and 15.10. I understand that Ms. Kleb will make the presentation. Please proceed.

13-H13.12 / 13-H14.11 / 13-H15.10

**Oral presentation by the  
Canadian Nuclear Association**

**MS. KLEB:** Good afternoon, President Binder, Commissioner Members, and members of the public. My name is Heather Kleb and I am the interim President and CEO of the Canadian Nuclear Association and I am here today -- also here with my today is Malcolm Bernard, our Director of Communications.

We are here today to speak to you on behalf of the 60,000 Canadians who work directly or indirectly in the nuclear industry. These men and women mine and mill uranium, generate electricity, and advance medicine through lifesaving diagnostics and therapies. Our members maintain a deep commitment to the safety of their workplace and their communities and to the protection of the environment.

That is why I am here today supporting Cameco's applications to renew the operating licences for the Key Lake, McArthur River, and Rabbit Lake operations. These operations affect our livelihoods as well as the communities where we live and work. During my presentation I will focus on two main themes.

The first is Cameco's long and stable history of operating these facilities safely, protecting

its workers, the public, and the environment. The second part of my presentation will focus on the numerous benefits that the nuclear industry brings to communities and Canada. These include good paycheques, clean air, and the science and technology that Canada needs in the 21<sup>st</sup> Century global economy.

Let me begin with safety. Uranium mines are among the safest industrial workplaces in Saskatchewan. This is documented and shown by statistics gathered by several government agencies. For example, the community vitality monitoring partnership process recently examined the health and safety of workers in the uranium mining sector. Their studies showed that workplace injuries for uranium workers are lower than in many other industries and worksites.

With or without lost time, open pit or underground, no matter where they worked, uranium mine workers received fewer injuries than workers in a wide variety of workplaces. They were safer than if they had worked in hospitals and care homes, commercial and industrial construction sites, even grocery stores, department and hardware stores, couriers and commercial businesses. Within this excellent picture of uranium mining, Cameco's performance stands out at the mine and mills you are considering today.

At Rabbit Lake, Cameco has a lost time injury frequency of 0.37 injuries per 100 workers. In addition, its Key Lake operations has gone more than five years without a contractor lost time injury. Not only are these better than the mining industry average, which is itself very low, but Cameco also has been recognized by the Canadian Institute of Mining, Metallurgy and Petroleum. The institute awards the John T. Ryan safety trophy annually to the mine that experiences the lowest lost time injury rate. It has awarded that trophy to Cameco three years in a row.

In addition to this very strong health and safety performance, Cameco maintains a strong performance record in environmental protection. Uranium in general has been rated as the best performing mining sector with regard to releases to local water bodies, under the metal mining affluent regulations.

Cameco exemplifies that performance at the Key Lake, McArthur River and Rabbit Lake operations. All are ISO 14001 certified. All are good examples of Cameco's continual improvements, in preventing pollution and protecting the environment.

Ongoing improvements include the commissioning of steam, oxygen and acid plants at the Key Lake operation. These have reduced sulfur dioxide

emissions by 95 percent. Cameco has installed a molybdenum and selenium removal circuit, improving the efficiency of removing these elements.

At McArthur River, these improvements have reduced molybdenum levels in treated mine water by 83 percent. And at Rabbit Lake, major upgrades have been undertaken, resulting in significant improvements of all water treated and released to the environment.

This is a solid record of environmental performance. Add the strong health and safety record I described earlier and we see clearly that Canadian Uranium Mines lead the way. In fact, uranium mine workers receive fewer conventional injuries than their counterparts in construction, medical or retail setting. Uranium mines lead in environmental performance, as they have the best performance in complying with the metal mining effluent regulations.

Turning now to my second theme. Let me show you the many economic benefits that uranium mining brings to Saskatchewan.

In three decades, uranium mining has injected more than 6.7 billion into the province. Last year alone, mining employees received paychecks and benefits worth 377 million. The employees of supplier companies earned a further 225 million. In addition,

uranium mining companies paid royalties and taxes to the provincial government and taxes to local governments.

Through partnerships between the uranium industry and government, the industry in Northern Saskatchewan has made significant improvements in education levels. This is particularly the case in post-secondary training such as apprenticeships and trades. Apprenticeship rates are now higher in Northern Saskatchewan than the rest of the province.

As well, the uranium industry takes significant pride in its record of aboriginal employment. Of the industries, approximately five thousand employees, about half are aboriginal. In fact, the uranium mining industry leads Canada in aboriginal industrial employment.

One of Cameco's core values is people. They value the contribution of every employee and they treat people fairly by demonstrating respect for individual dignity, creativity and cultural diversity. Such actions have been recognized and in 2013, Cameco was awarded the Progressive Aboriginal Relations gold medal award from the Canadian Council for Aboriginal Business.

Also this year, the Bank of Montreal recognized Cameco to be among Canada's best diversity employers.

Another economic benefit derives from this

industry's customers. And Canada's uranium is used exclusively to generate electrical power.

Nuclear power plants use uranium within the constraints of international non-proliferation agreements and Canadian export licenses.

Canadian uranium has only peaceful purposes. We are pleased to acknowledge the recently signed nuclear cooperation agreement between India and Canada that came into force days ago. This allows Canadian companies to export nuclear items to India, for peaceful purposes and it will be regulated by strict international atomic energy agency safeguards.

Yet another economic benefit is at the same time, an environmental benefit. Canada and the world are working to delay and ultimately to prevent climate change. Nuclear power plants emit virtually no greenhouse gases. So we are able to power our economy without contributing to climate change or smog. The benefits are clear.

Currently, nuclear energy provides roughly 15 percent of the electricity produced in Canada, but in Ontario it has produced 50 percent of the electricity over the past five years.

Other than Hydro, no other source of energy can produce so much low carbon, base load power at such sustained levels.



Cameco contributes greatly to this environmental and economic benefit, by providing the fuel for nuclear power at home and abroad.

McArthur River is the world's largest high grade uranium mine. It contains nearly 380 million pounds of uranium oxide.

Key Lake hosts the largest uranium mill in the world and Rabbit Lake the second largest.

Mr. President, it's all there. Clean air, reliable power, good jobs and paycheques. And a safety record that sets the bar for Canadian industry.

For all of these reasons, the Canadian Nuclear Association respectfully submits that the Commission should approve Cameco's applications to renew the Key Lake, McArthur River and Rabbit Lake operating licenses for ten year terms.

Cameco has demonstrated that it is qualified to carry out safely the activities sought in its applications and has made adequate provision for the protection of the environment.

Thank you very much and for the opportunity to appear before you today and I'd be pleased to take any questions.

**THE CHAIRMAN:** Thank you. Questions?  
Monsieur Harvey?

**MEMBER HARVEY:** Just one question. I would like to know how is established your position? I mean what kind of data, what type of preoccupation, what type of concerns do you have? What is the process to get to such position and such conclusions?

**MS. KLEB:** Heather Kleb for the record. It takes a number of different steps. First and foremost, we review Cameco CMD documents. There the license application itself, and a number of people of in the office review -- review it, and look at, you know, look at the various strengths of this particular license application. We also have a number of positions that we've developed as an association with our membership on a number of different issues, ranging from environmental issues to climate change and the -- regarding the economic advantages of nuclear power generation. And we pool all our member positions together to articulate our member viewpoint on the submission.

**MEMBER HARVEY:** Does Cameco participate to the -- well, just participate? I won't say anything else.

**MS. KLEB:** They are definitely involved in our policy discussions or position discussions over the years. Also, as a courtesy before we arrive at the hearing, we'll give them a copy.

**MEMBER HARVEY:** You take into consideration

the perception of communities in the area?

**MS. KLEB:** Heather Kleb for the record. We have taken that into -- we do take that into consideration and unfortunately I wasn't able to get here in time for all of this morning's interventions. But I did review their written interventions. And actually, we reviewed all if -- or most, if not all of the interventions at each hearing we attend.

**MEMBER HARVEY:** Okay, I was just saying that because when you're talking of the benefits of the mines and things like that. Okay, thank you.

**THE CHAIRMAN:** Just a follow up. We all understand that you're an industry association, so obviously Comeco is a member. But as in the industry association, have you ever thought about whether you can have a role or have a role in coordinating some of the concerns of some of those communities with the industry and the level of governments? I mean it's a big question, but is there such a role for an industry association?

**MS. KLEB:** Heather Kleb for the record. Our view is that when it comes to -- well our view is that the relationship between the proponent Cameco and the aboriginal community is more important than our relationship with the aboriginal community. Our role is -  
- would be more along the lines of providing information.

We look to share information on our industry and work to create a positive public environment. We do that through sharing information on our websites and fact books. We have an education program. We're trying to get good material into the school system, grades 7 through 12.

In addition, if a community were to approach us and they have, and invite us to their local community to share information about our industry, we are quite willing to do that.

**THE CHAIRMAN:** Thank you.

Questions? Questions?

Okay. So just keep on pursuing it. One of the issues that was raised a few times is a need to improve the education -- you just touched on that -- and raise the level of education, if you like, in Northern Saskatchewan.

Is there a role for you and the Government of Saskatchewan, if you like, because it's a provincial jurisdiction, to deal with some of those issues?

**MS. KLEB:** Heather Kleb, for the record.

We absolutely have a role in terms of educating the broader public about our industry. And with that, I'd like to hand it over to Malcolm Bernard to provide more detail

**MR. BERNARD:** Good afternoon,

Commissioners. Malcolm Bernard, for the record.

The education program of the Canadian Nuclear Association falls within my responsibilities. I've been on board for five months. I've now had a chance to familiarize myself with that program.

We provide for teachers at all grade levels a curriculum-friendly content on our website. We have a specific website dedicated to education called, and I'll just put a plug in for it now, [teachnuclear.ca](http://teachnuclear.ca).

The content is there. We'll be working over the next year to make sure that teachers across the country, including Northern Saskatchewan, are aware of the content and able to bring it up into the courses that they provide their students.

We'll also be talking with all the provincial governments to make sure that our content is relevant.

**THE CHAIRMAN:** So within Northern Saskatchewan, would it relate to the uranium places, if we can use that kind of a thing, rather than nuclear in general?

**MR. BERNARD:** Malcolm Bernard, for the record.

We're guided by the provincial curriculum in each province. I'm more familiar with the Ontario

curriculum, having just read several thick binders on it.

I can tell you that in each province, the material we have now available on the website is keyed to the curriculum in that province.

As I explore this further, if I see a gap between the curriculum and the needs of the local community, I'll certainly be interested in closing that gap.

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

Anybody else want to pursue this?

Okay. Thank you. Thank you very much.

The next presentation is by the Canadian Nuclear Workers' Council and the United Steelworkers Union, local 8914, as outlined in CMD 13-H13.6 and .68A and H14.5 and .5A.

This submission is regarding the Key Lake and McArthur River operation, and I understand that, Mr. Shier, you'll make the presentation.

Go ahead, please.

**13-H13.6 / 13-H13.6A / 13-H14.5 / 13-H14.5A**

**Oral presentation by the Canadian**

**Nuclear Workers' Council and the**

**United Steelworkers Union (USW)**

**local 8914**

**MR. SHIER:** Good afternoon, Mr. President, Members of the Commission, and I guess everybody else that's here as well.

As indicated, my name is David Shier. I'm the President of the Canadian Nuclear Worker Council, and I have several colleagues assisting me.

To my right is Susan Daigneault, and her right is Ed Morelli. Ed Morelli is the Nuclear Worker Council Executive Board person for the Saskatchewan -- for the mining sector. And both Susan and Ed are also members of the United Steelworkers Union, which is a union -- the location they're from is McArthur River.

At the table behind, we have Jim MacEacheran and Keith Cartier. They're both United Steelworker Union representatives, and they're from the Key Lake site. And they will be helping with any questions you may have.

Just quickly, for the benefit of maybe the intervenors, the Canadian Nuclear Worker Council, as the name implies, is a council of unions that are involved in the nuclear industry across Canada right from the uranium to the processing to the nuclear power plants to the decommissioning, et cetera.

Also worth mentioning, the Steelworkers

Union is very active in the nuclear industry in Canada and in the United States, especially in the fuelling part of the industry. And they've been very active for years.

They were actually the key union in the mines in Ontario way back when in the learning stages.

Lost our screen.

Anyway, our presentation is going to be brief. We're basically going to cover the views of -- our views of health and safety and worker training, and then we'll provide kind of a grass roots worker perspective and then some conclusions and recommendations.

**THE CHAIRMAN:** This is a technical pause.

Ah, there it is.

**MR. SHIER:** So in regards to worker training, we believe that worker training is a key to a safe workplace. And these two sites, the workers receive a lot of on-site training, health and safety training, radiation training. They also naturally receive skills training for the jobs that they are trained to do, and they also receive requalification training.

So you wrap this all in place, there is a lot of training at these sites, which does lead to a good safety program.

Safety culture. Everybody has different definitions for that. We look at that as where safety is



number one in the workplace and include that along with all its safety training they have, that does develop a safety culture.

And as you'll hear from our future -- further presentation that safety culture has improved over the years and it is in a good position at these particular sites.

So what I'm going to do, without further ado, is get my colleague, Susan Daigneault, to go through a presentation of her experiences working in the mines and her involvement. And I think it'll give you a real good picture of what really happens in these workplaces.

Susan.

**MS. DAIGNEAULT:** Thank you, Dave.

Good afternoon, Mr. President, Commissioners. My name is Susan Daigneault. My home community is Buffalo Narrows.

I'm here before you today to comment on Cameco's application for licence renewals at the McArthur River mine and Key Lake uranium mill.

My working experience has been mostly in the nuclear industry. I have been with Cameco Corporation for the last 15 years at McArthur River, and a proud member of the United Steelworkers local 8914.

In my years of employment, I have obtained

my electrical journeyperson ticket as well as my hoist operator's ticket. Prior to Cameco, I was in Cluff Lake with Cogema, now Areva Resources, for six years.

I am currently a United Steelworkers District 3 health, safety and environment committee representative for our local, an occupational health committee representative for our electrical department, member of WIN, which is Women In Nuclear. I also maintain our USW local 8914 newsletter and website.

I have also previously participated in CNWC conferences and meetings, held the OHC co-Chair employee representative position as well as years on the emergency response team and mine rescue team.

I'm here as I fully support Cameco's 10-year licence renewal for McArthur River uranium mine and Key Lake mill.

Not only do the sites meet the highest standards with regards to health, safety and radiation and environment, but employ so many people from all over our great province.

The nuclear mining industry is driving our economy in this province, and it is especially important for the north.

I personally feel that between Cameco, our union and the regulators, the nuclear industry is one of

the safest places to work. Our local and Cameco have a good working relationship, which includes maintaining communication, regular joint occupational health and safety meetings, and site inspections.

In my years on the OHC, I've always felt comfortable approaching management with any issues brought forward by employees on the floor. If you have questions, you ask.

We have daily toolbox meetings and weekly safety meetings where any concerns can be raised.

Our five-point safety card takes you through a checklist and is another tool used to raise concerns.

Cameco adheres to and expects its employees to comply with the *Saskatchewan Occupational Health and Safety Act*, Regulations and code of practice. There is a minimum standard set and Cameco goes beyond that standard code of practice.

Education and information are great tools at McArthur River. Training in the areas of radiation, WHMIS to health safety environment is an ongoing process.

I have talked to family and friends who are curious about our industry. I have also encountered negativity, which seems to be based on lack of knowledge of this industry. I have defended our industry and

explained to the best of my knowledge what we do, the benefits of cleaner energy, the safe work environment and what Cameco and the Union give back to the communities in our province.

Our industry is in need of skilled workers, and we are in a position to make positive changes. Uranium mining will be around for years to come, which allows for great opportunities to employ and train northern people, which will then benefit the company, the individuals and their community in the long term.

I personally would like to see more apprenticeship programs promoted for women and to see more women trained and employed in the trades.

In any position, we all encounter hardships, stumbling blocks, that with training, support and leadership, we can overcome.

Would I recommend working for Cameco and the nuclear industry? The answer is yes.

Thank you for your time.

**MR. SHIER:** Thank you, Susan.

So in conclusion, we heard a lot this morning about concerns with the environment, and as we always say, as a union movement, there is a definite connection between health and safety in the workplace and the environment because things that are going to affect

the environment will probably affect the workers prior to affecting the environment.

So with the programs in place and the record of the steelworkers, I think the public can be confident in the fact that any environmental issues will be dealt with by the on-site unions and, if necessary, will be brought to the CNSC's attention.

In regards to the 10-year licence, the Nuclear Workers' Council and the Steelworkers Local are in support of the 10-year licence, and I'll qualify that and, in fact, as the Commission is aware, at one time we were not in favour of extending the licences of facilities.

What has changed is there's a couple of issues. We've re-thought it. We're confident that with the CNSC staff and inspectorate on site, any issues that come up will be identified.

Also, along with the active USW health and safety representatives that are on site, again, that is another check in the system if there's any issues around that have to be identified.

So the other main issue that was touched on this morning was that the CNSC now does an annual report of the nuclear power plants, and that has been extended to the uranium mines. We find that that documents that are produced and the hearing that is produced is another area

where if issues need to be brought up, they can be brought up.

So in conclusion, we're in full support of the renewing the licence for the 10-year period at the McArthur River Mine and the Key Lake Mill.

That concludes our oral presentation. You have our written presentation, and we'd be prepared to answer any questions you may have.

As I indicated, there's representatives here from both the McArthur River and the Key Lake Mine.

Thank you.

**THE CHAIRMAN:** Thank you.

Questions? Mr. Tolgyesi?

**MEMBER TOLGYESI:** Mr. Shier, do you have any difficulties to involve, to participate northern workers on various committees of unions or as union representatives or officials?

**MR. SHIER:** Yes, there is a - a lot of the members from the northern communities are involved with the union, and I'll ask Susan to comment on that.

**MS. DAIGNEAULT:** Susan Daigneault, for the record.

We do have 11 executives on our current, I guess, Executive Board that are northerners. We have been engaging more participation in conferences and trying to

engage more females, to get more women from the communities such as Dillon and so on and so forth to also come forward.

**MEMBER TOLGYESI:** You said you have 11 of how many?

**MS. DAIGNEAULT:** Of 20.

**MEMBER TOLGYESI:** Of 20.

**THE CHAIRMAN:** What's the total membership of the union that works for Cameco?

**MS. DAIGNEAULT:** Susan Daigneault.

Our total union membership for Cameco, our hourly, we have 232 for Key Lake, and of those 232, 142 are RSN. And for McArthur River we have 192 hourly employees - sorry, correction, 249 hourly employees. Of those, 192 are RSN.

**THE CHAIRMAN:** I notice Rabbit Lake is missing in all of this. What happened?

**MS. DAIGNEAULT:** Rabbit Lake is a non-unionized mine site.

**THE CHAIRMAN:** So you have no opinion about the Rabbit Lake licence?

**MR. SHIER:** I don't think that's the proper forum to bring it up. We don't have any representatives here. We could give some advice to Cameco on that, but we won't.

**THE CHAIRMAN:** Thank you.

Mr. Tolgyesi.

**MEMBER TOLGYESI:** The contractors are non-unionized?

**MR. SHIER:** Yes, that's correct.

**MEMBER TOLGYESI:** And one of the previous intervenors reported about northern workers' difficulties to bring their concerns to supervisors.

Do you observe the same concerns to communicate or bring these concerns to Cameco or to the union, because they are union members?

**MS. DAIGNEAULT:** Susan Daigneault, for the record.

In my 15 years with Cameco, I have never had a situation where I never felt comfortable because - like, I've had people approach me off the floor that due to language barriers and so on and so forth, they didn't know how to express their concern, but I've never had any issues with phoning management or talking to people to find out what is going on and what the solution might be with the concern.

**MEMBER TOLGYESI:** So they are talking to you openly. They have a concern, so they are coming to see you more, or they go to supervision?

**MS. DAIGNEAULT:** They do come to me, and



one of the things I have started to instruct people to do was to use the five-point safety card, which is to write it down so that a supervisor does see it.

And if that isn't addressed that way, then we follow the steps to progress further.

**MR. SHIER:** I'm just going to have Keith comment on that.

**MR. CARTIER:** Keith Cartier, for the record.

Yeah, in my 10 years either, I've never encountered any issues with safety-wise or anything. Anything I have of concern in regards to my supervisors of any sort, their door is always wide open.

And if anyone on the floor ever wanted to - like, me being a union member, higher in the union, if anyone ever has any issues, they come see me. I can go see whoever is involved in that issue and we can resolve it in any which way is needed.

**MEMBER TOLGYESI:** Just a last question for Cameco.

Considering that statement that there is sometimes difficulties to communicate with supervision for northern workers, do you have any new approach or some kind of constructive, supportive program to make sure that when there are difficulties or concerns, they are coming

to see you?

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

Our top priorities are the protection of the environment and the safety of our workers. And so in that conversation, there is endless encouragement around reporting and outlining the various vehicles that are available to report. And again, we're a learning organization as well, so hearing the feedback in that regard, I mentioned a refresh in relation to our ethics hotline, and potentially there's an avenue there to pursue or follow-up in relation to some of the concerns we've heard.

**THE CHAIRMAN:** Thank you.

Anybody else? Ms. Velshi?

**MEMBER VELSHI:** Does the Union provide any training to its membership, health and safety in particular?

**MS. DAIGNEAULT:** Susan Daigneault, for the record.

We do provide - I don't know what we can say, there's no official training that -- like, we're not part of the orientation process.

But if they -- like it's made aware that when we have our union meetings we have the cards that give the information for your rights, your right to know

and so on and so forth. But that would be the extent of where, besides being on the OHC and having your representative in each of your departments.

**MS. VELSHI:** And when you do cover that do you do it in languages other than English?

**MS. DAIGNEAULT:** No we don't. But we do have employees that -- if there is a language barrier, there are some employees that are bilingual that will do some translating and so on.

**THE CHAIRMAN:** Member McEwan?

**MEMBER MCEWAN:** So in your written submission, you say that since 2004 there has been a significant change -- improvement in the safety culture of Cameco. So for your members on the floor, how would they notice that? And was it going from a very low baseline level or has it been just this, sort of, a continuing improving slope?

**MS. DAIGNEAULT:** Susan Daigneault, for the record. It hasn't -- it's been a continuous process due to training and educating.

And one of the drawbacks is just people don't have the information and tools. So that's why we are trying to provide that information and tools. And getting more people, I guess, talking in coffee rooms and so on. Like that -- they are missing some parts of the

information. You only catch a little bit and you don't fully -- you haven't been made fully aware of what is going on. Does that kind of answer part of it?

**MEMBER McEWAN:** So ---

**MR. SHIER:** Dave Shier, for the record. I might just comment on that from my experience outside or dealing with the group here.

There seems to be an accumulation of things that has improved the safety culture. A lot of the training that has been going on and I think it is safe to say that the Occupational Health and Safety Committee has been more active. There is a total of -- quite a large number of reps from the Union that are involved. Fourteen (14) at one site, 16 at another. And so -- that's split between two shifts so there is always a health and safety representative on site.

And the Union leadership also meets with those committees on a regular basis. So there is a lot more health and safety dialog. And I think that has come along to, as Susan indicated and others earlier, that that's created that culture where people are not afraid to report things and get things addressed.

And it seems to be, from my discussions with the representatives, it seems we've moved along quite a lot since the last two hearings.

**THE CHAIRMAN:** Monsieur Harvey?

**MEMBER HARVEY:** On page 7 of your submission, the last paragraph, you mention also the Union and its members are a sort of watchdog on the side and would raise any compliance issues with the CNSC.

Has the Union ever raised such a non-compliance issue to CNSC? And after that I would ask CNSC how that would be received?

**MR. SHIER:** Dave Shier, for the record. At our -- as indicated steelworkers are a major player in our Nuclear Worker Council and at our nuclear worker -- we have a convention once a year where each site does a report and we have some discussion.

And over the years, we have been encouraging that more to get people if they have an issue that the CNSC is also a resource that they could go to. And it has been happening at the mine sites as well and I'll get Susan to comment on that.

**MS. DAIGNEAULT:** Susan Daigneault, for the record. There is a really good working relationship, in my opinion, with the CNSC and the SASK Labour. In my years with OHC, any time we've had a concern, like when they are on site, its open and you are free to speak.

The same thing when we are on the floor and we are doing a tour, they are again - they engage the

employees of the floor to ask questions and ask them if everything is good in their workplace, do they have any concerns.

And as far as that aspect goes, like its - there's always been really good communication. And I know myself, personally, I've never been in a position where I felt I couldn't approach and ask a question.

**MEMBER HARVEY:** You want to add something?

**MS. EATON:** Sarah Eaton, for the record. We also include Occupational Health and Safety representatives on our inspections. So when we go underground or we do a surface inspection, for example at McArthur River, we will take an Occupational Health and Safety representative with us on the inspections so they can see what we are seeing and we can discuss aspects more underground.

**MEMBER HARVEY:** Thank you.

**THE CHAIRMAN:** Anybody else? Any other -- no other questions?

I got one question, does -- you know, there's a lot of your members that are working in the mines, they go back to communities where there are some concerned citizens.

Do you have any formal outreach program? To try to explain your view of being an employee, working

in a mine. All the things you have said here. Do you ever ask to formally explain why you feel safe? Why other people don't feel safe?

**MS. DAIGNEAULT:** Susan Daigneault, for the record. There has been no formal application made for Union members or workers off the floor to participate in such events.

One thing that I have been trying to do with our newsletter and our website is trying to take information back to the communities so people like our employees will -- their families can learn more of what they are doing and what's going on, I guess, more so for mine site specific.

**THE CHAIRMAN:** There is a union, I know that they -- I know, you send me the union brochure about what's going on. Is there one on uranium mining specifically?

**MR. SHIER:** No. Dave Shier, for the record. No, our publication is generic. It covers the whole industry. We don't do anything specific but just on to your earlier question, I'd suggest as well, as we covered in our written submission, that a lot of the workers at the Cameco sites would, for example, their emergency response training and even their trades training. That gets used in the local communities as

well.

So there is that part of the -- I think the people that work there, being back in their communities, the residents see some added value as well from the skills they have at work that are being transferred into their communities to help them out as well.

**THE CHAIRMAN:** Okay. Anything else? Okay, thank you. Thank you very much.

The next presentation is from Mr. Buffin, as outlined in CMD 13H-13.3, regarding the Key Lake operation.

### **13H-13.3**

#### **Oral presentation**

**By Dwayne Buffin**

**THE CHAIRMAN:** Mr. Buffin, the floor is yours.

**MR. BUFFIN:** Hello everybody. My name is Dwayne Buffin. I'm 36 years old with a family of 3 kids. A 13 year old daughter, 12 year old daughter and a little three year old man.

I've been a Northerner all my life, living in Beauval Saskatchewan and I'd like an opportunity to appear in front of the Commission in La Ronge to elaborate



why our mines and the mills should have a 10 year license.

I love the north. There is no place I would rather be than here. I have graduated from Valleyview School in 2000 and went to post-secondary school at SIT in Meadow Lake in 2002 for Process Operator Technician and fourth class Power Engineering certificate.

After the first year of schooling, I was placed in Key Lake powerhouse for a two week practicum. Halfway through my second year, my funding got cut off so I was sort of put in a bad spot and I asked my instructor if I could go to work and go to school at the same time.

I had no other choice. Either take the challenge or quit school. I phoned up Key Lake to see if they would give me a job so I can keep going to school. I told them my situation and they were happy to give me a temporary job to help me out.

And the biggest factor leading to my supervisory role, which I am in right now, which was the fact that I work hard, never gave up and I was very persistent. And I always had a willingness to learn.

I've always thanked the senior operators for taking me under their wing as they helped me a lot to get where I am today.

I started in Cameco Corporation in December 1<sup>st</sup>, 2004, as a mill helper; just a temporary position,

and started full-time three months later as a mill trainee.

I didn't really get into the supervisory role until 2010 as a temporary fill in for a mill supervisor. And I became a full-time supervisor in March 2012. I became a mill general foreman in late October in 2012 and I've been there ever since.

As I gained experience throughout the years, I've learned three easy steps to keep radiation exposure as low as reasonably achievable, which are time, distance and shielding. Time you spend in a highly radioactive area, distance from the source and spending extra time using as much shielding as possible.

There is only so much a radiation program could do for you so always ask a lot of questions from the radiation department, senior guys or your supervisor for what radiation protection may be required.

Our radiation department takes daily samples for gamma and radon progeny in high-risk areas. They issue dust pumps to measure any doses of long-lived radioactive dust that a worker may have ingested and DRDs to measure gamma exposure.

The main thing about radiation is awareness and training, which the radiation department does a good job stressing to all workers. Safety is our number one

priority of all workers as there is no job so important that you can't take time to it safely.

I sure took my safety back home as well with me in everything I do at home. As you know, it takes only a second to hurt yourself.

I've actually had a few people say it's not safe to work in uranium mines. And I told them as long as you protect yourself from the hazards of processing uranium, you'll be okay.

Always respect the products you are handling and take the proper precautions in handling, whatever you may be handling. Cameco does an excellent job protecting the environment constant of -- constant monitoring of mill effluent to keep our regulatory limits way below set limits. Our team always takes extra precautions in finding ways to minimize impacts to the environment.

I tell the youth in our northern communities to stay in school, educate yourself as much as possible and you'll have a better chance to get hired in the northern mine sites.

This job means a lot for me and my family as we are well off. There's no other job in the north that will pay us this well. If I didn't have this job, I would probably be in Alberta working for the oil companies

for sure.

The seven in, seven out work schedule has its advantages and its disadvantages for sure. Advantages is you spend more than half of your time at home with your family, which is awesome. Disadvantages is a week seems to be a little short as you're just getting home and all of sudden, it's time to go to work.

The 10-year licensing means a stable future for me and my family, as well as all employees working at the mine sites. It means a lot to Cameco as well for a bright future in the uranium industry.

We are just learning ways to harness the power of uranium. Some day, it will be powering our vehicles with zero emissions or power emissions to space and beyond. The possibilities are endless.

I'd like to thank you guys for listening to what I have to say and thank everybody else. And if you have any questions, go ahead.

**THE CHAIRMAN:** Thank you. I'm sure we'll have some questions.

Anybody want to start? Dr. McEwan.

**MEMBER McEWAN:** So thank you for the presentation. One of the themes that we've heard a lot this morning has been communications back to the communities. It seems to me you're ideally placed to do

that. Is there a mechanism within Cameco that enables you to do that or facilitates it so you can go back and explain and teach?

**MR. BUFFIN:** Actually, I kind of do it on my own. I just talk to people who ever approach me and ask me questions about the northern mine sites. And I give them as much information as possible. That's about it.

**MEMBER MCEWAN:** And do you ever notice -- is there a need, actually, on site to translate between two languages? Do you find that is something that is important to do or that's useful to do or that you can do?

**MR. BUFFIN:** Yes. I'm actually fluent in Cree. I could talk Cree a little bit, but I mostly understand it. And yes, there is a little bit of gap there, but I tend to take my time speaking in English and really explain to other people who I kind of have a little bit of language barrier with. So I just take the time and explain it very well.

**THE CHAIRMAN:** Do they believe you?

(LAUGHTER/RIRES)

**MR. BUFFIN:** Yes, they do.

**THE CHAIRMAN:** Well, you know, there's -- if you don't believe in governments, you don't believe in scientists, presumably you believe in people who actually

work there. Maybe not. What's your experience? Do they push back when you tell them your experience?

**MR. BUFFIN:** Yes, they do push back. So I never hold back.

**THE CHAIRMAN:** Anybody else? Monsieur Harvey.

**MEMBER HARVEY:** In your presentation, you mentioned that safety is our number one priority because a job is important. Do you think that it's a source of stress for workers? I mean, in other words, do you think it would be -- it would get less -- it would be more stressing to work in uranium mine than another mine?

**MR. BUFFIN:** I don't think so. I think -- the way I look at it is if you don't know how to do the job, don't do it. I always find to always use all your tools in your toolbox, ask questions to senior operators who have actually done the job before and find out ways to do it safely and efficiently and as much as possible, I guess.

**MEMBER HARVEY:** So you don't think there is a difference working with uranium than any other mine?

**MR. BUFFIN:** There is a difference, but -- it might take a little bit longer to do jobs because we have to continually plan and find out better ways of actually doing the job. And I guess, sorry, I'm a little

nervous.

**MEMBER HARVEY:** That's okay. I understand that it's not really a problem for you.

**MR. BUFFIN:** Yes.

**THE CHAIRMAN:** Mr. Tolgyesi.

**MEMBER TOLGYESI:** You were saying that you're discussing within a community about your work and what you do and what you did. You learned and grew up in a level of responsibilities. But tell me how your family and friends are perceiving your job? It's risky, it's dangerous, it's normal? Do they express to you that, gee, maybe you are better to change the job because it's too risky?

**MR. BUFFIN:** My job is risky, yes, and I always, always have something in my mind, ways to do it better, and I always explain to my friends and family that I'll be okay. And Cameco always supports myself and all the other workers to help guide us through, I guess, difficulties we might have working in the mill. And that's all I've got.

**MEMBER TOLGYESI:** You were saying a few minutes ago that some, they stood back or pushed back. So what's your feeling that -- you are from which community?

**MR. BUFFIN:** Beauval.

**MEMBER TOLGYESI:** Beauval?

**MR. BUFFIN:** Yeah.

**MEMBER TOLGYESI:** Do you feel that the members of your community they understand what's uranium, what's mining, what's the consequence of storing, et cetera or you believe that there should be something done to make sure that they understand well? And they make up their mind after?

**MR. BUFFIN:** Yes, there should be some sort of education to the Northern people of what we do up there and there's kind of a big gap there. Quite a few people in my community ask what I do and what we actually produce over there. And they don't really know what's going on over there.

I try to educate them as much as possible, but sometimes they just don't understand.

**MEMBER TOLGYESI:** And what do you think that -- because there is a question of trust for sure if people believe this Cameco, they will say they are promoting. If there is somebody else who will be the best to do this that there will be openness to try to understand and not have a feeling that they tried to push something across, you know. Somebody who will have a trust of those members of your community and the other communities also because I suppose it could be similar from one community to another one.



**MR. BUFFIN:** Well, I should -- actually both Northern people and Cameco Corporation should actually come together and educate everybody in the North. That's my suggestion. I don't know if that answers your question or not, but ---

**MEMBER TOLGYESI:** Okay, that was who will be the best person or best organization to do this education?

**MR. BUFFIN:** Probably the people who actually work up there, who actually know what's going on up there and really know what the hazards and, I guess, what protection measures we do to protect ourselves and the environment.

**MEMBER TOLGYESI:** Cameco, do you have any comments on that?

**MR. MOONEY:** Liam Mooney, for the record. And I'll ask Sean Willy to expand a little bit on how we approach engagement in the North and the points of emphasis there. Sean?

**MR. WILLY:** Sean Willy, for the record. With all of our communities, part of our wheel of engagement or consultation, one spoke of that would be our annual Northern tour which we would visit all of our, you know, communities to provide an annual update on our operations and projects.

We do work with our employees to try to provide some of the information Dwayne is talking about so they can bring it back. We do also engage with family tours where family members get to come to the site and see where their mother or father, brothers or sisters are working.

The unique aspect with remote mine sites is that when your relatives, family and friends go to work, you can't see the day-to-day aspect, if they are working directly in the community. So, for instance, Dwayne says, "Well, I go work in the mill as a general foreman." The context only gets in place when his young ones or family sees him in that context.

So we do engage in family tours of our operations to provide that link. But we also then communicate with communities like Beauval through our Northern Saskatchewan web site, working with outside organizations such as the PDAC, the Prospectors Developers Association of Canada. We brought up mining matters this year to English River and Lac La Ronge.

So it is trying to find the right vehicle and the right mechanism moving forward.

**THE CHAIRMAN:** Did you -- I can tell you from CNSC experience, you're aware that we are doing CNSC 101. What is CNSC? What does it do? How does it work

And we also have CNSC online, trying to explain what is a nuclear power plant, what is a uranium mine.

You got any of those educational tools that can, you know, explain in layman's language how those things work and what's the safety issues, the risks and all this stuff? Do you have something kind of in a package?

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

And yes, we do. It's similarly titled. I think we might claim that we were the first out of the gate with a uranium mining/nuclear fuel cycle 101 that's available on our web site and it forms a part of the discussion with our communities in the Northern Energy Tour context and part of the engagement.

So there's no question that we value the input from our employees and they're our ambassadors in Northern Saskatchewan to bring messages like we heard earlier today about the safety of our mine sites and the emphasis that we place on protection of the environment.

But that's augmented by those other tools that Sean outlined, including that broader-based Northern Energy Tour to let communities outside our priority recruitment communities hear more about what the industry is doing in Northern Saskatchewan.

The other vehicle -- I don't think I should

let slip is there is project specific engagement as well and a lot of the discussion around there is some of those basic issues and making sure that there's good communication around those, and then launch into the conversation more about what the project that's being presented entails.

**THE CHAIRMAN:** Okay, thank you. You have the last word. Anything else you want to share with us?

**MR. BUFFIN:** I'd just like to thank you guys, thank everybody else for listening to my story and that's it. Thank you very much.

**THE CHAIRMAN:** Thank you.

The next presentation is by the Saskatchewan Environmental Society as outlined in CMD 13-H13.23 and H14.21 and 15.20. These are three specific submissions for each facility.

So I understand that Ms. Coxworth will make the presentation.

The floor is yours.

**13-H13.23 / 13-H14.21 / 13-H15.20**

**Oral presentation by the  
Saskatchewan Environmental  
Society**

**MS. COXWORTH:** Thank you very much. Good afternoon, Commissioners. My name is Ann Coxworth. I'm representing the Saskatchewan Environmental Society.

So thank you for the opportunity to draw your attention to some of the highlights of our written submission on the Key Lake re-licensing proposal.

As we have noted in our submission, our main review of Cameco's proposal focuses only on the local environmental impacts of the Key Lake operation. As far as these impacts are concerned, we would be prepared to recommend a two-year licence renewal at this point. However, wider concerns about the ultimate destination of the product of Saskatchewan's uranium mines will prevent us from supporting the re-licensing.

And these concerns will be discussed briefly when we talk about the McArthur and Rabbit Lake proposals.

So in discussing the local environmental impacts at Key Lake, I'm going to use this short time to identify some of the key recommendations that we've made with respect to the Key Lake site. And I hope that you've had the opportunity to review our written submission and to consider the entire list of 37 suggestions and questions in our report.

So first, let's talk about the interface

between the re-licensing process we're currently engaged in and the environmental assessment currently underway under the jurisdiction of Saskatchewan's Ministry of Environment.

The proponent is asking for a 10-year license renewal for a period during which a significant expansion of the mill and Tailings Management Facility is planned. The environmental impact study for this expansion has not yet been released. The timing of a decision on whether the extension will be approved is unknown. If the expansion is approved, the CNSC license will require serious amendment with further public hearings. It seems to us inappropriate to be considering a 10-year license at this point when we know that the intention of the proponent is to quickly render the new license inadequate.

And it's for this reason that we suggest a two-year license renewal now, enabling Key Lake to continue operation while allowing time for completion of the Environmental Assessment process and the development of a new licensing proposal that would include the expansion plans.

Next, I want to explain our intention in raising a number of site concerns that we are not able to firmly document.

We have not been given the opportunity to visit the Key Lake site, and that's unfortunate. However, issues have been brought to our attention by some individuals who are very familiar with the operations but who don't feel free to speak openly. We are therefore identifying some of these issues so that you, as the regulatory body, will have the opportunity to investigate them and to determine whether action is required.

We also want to register our concern that some employees apparently seem to fear loss of their jobs if they publicly draw attention to what they perceive as environmental problems at the site. So we would therefore ask the Commission to review the level of transparency in the culture at Key Lake.

Some of our concerns that arise from our reading of available documentation focus on the Deilmann Tailings Management Facility. We note that the original design assumed that the tailings would be confined within the basement rocks on the surround. Now, however, the tailings are rising into the sandstone region, and if expansion plans proceed, into the surface till.

Already, with the results of the sloughing of the pit wall, we have a continuous link via wet sand from the tailings to the surface environment. This must raise concern about the long-term confinement of

contaminants.

Previous regulatory processes have commented that it's unlikely that we will ever be able to "walk away" from this tailings pit. The decommissioning plan suggests that it will probably be necessary to permanently prevent human intrusion, presumably through signs, fences and bylaws. We're skeptical about the ability of such measures to ensure perpetual isolation of the pit site. This creates concern about the preliminary decommissioning plan, which assumes that the site will eventually be turned over to the province's institutional control program.

Cameco's estimated cost of decommissioning doesn't appear to include a budget for provincial management in a post abandonment period. It's suggested in the plan that -- quote:

"A provincial representative would visit the site occasionally at their discretion for a visual inspection."

We suggest that this would not constitute responsible care, especially given that the preliminary decommissioning plan of January 2013 predicts that surface water quality objectives will remain unmet in some locations in the post decommissioning period.

With respect to the above ground Tailings



Management Facility, we are recommending that Cameco review its decision not to mine the pile for nickel. It seems likely that this could be a profitable venture, which could help reduce the levels of nickel contamination in surrounding surface waters.

In reviewing plans for decommissioning the Deilmann North waste rock pile, we came to the conclusion that it would be important to gain a better understanding of the nature of the material in the pile before deciding on a specific decommissioning approach. It's been suggested to us that past practices included dumping of ore in the waste rock pile by impatient truck drivers.

We're recommending that a detailed drilling program take place to identify pockets of ore and to better characterize the makeup of that pile. Cameco may want to consider removing any ore rich parts for processing and placing some of the more acid generating basement rock into the Deilmann pit, leaving a more manageable pile for protection with some kind of cover. This then also raises the question of priorities for the use of valuable space in the Deilmann pit.

We would like the CNSC also to investigate some concerns that have been brought to our attention regarding the reverse osmosis plant. These are described in our written submission. They include a claim that the

PH meter that controls release of treated water from the plant is sometimes removed by workers and placed into a cup of clean water to prevent triggering a plant shutdown if water quality is expected to be unsatisfactory.

There is also a suggestion that the pipeline that carries treated water from the plant to Horsefly Lake is radioactively contaminated. Concerns have also been raised about the management of the start-up process after a shutdown of the RO plant. It's suggested to us that inadequate pumping capacity results in the release of contaminated water.

And questions are raised about the capacity of secondary containment in some areas. It's suggested that there is actually no secondary containment for the RO plant's reject water surge tank, which actually contains some of the most hazardous water on the site, or for the overflow pipeline running from the reject tank to the crusher sump. Now, we are not in a position to confirm these claims, but we believe that they represent sufficiently serious concerns that the CNSC should ensure that a new license is not issued if any of these is outstanding.

I'm now going to turn to an initial discussion of the McArthur River proposal.

**THE CHAIRMAN:** I -- just a second.

**MS. COXWORTH:** Sorry.

**THE CHAIRMAN:** I think just for efficiency, I'm not sure -- you want to go through the three ---

**MS. COXWORTH:** Well ---

**THE CHAIRMAN:** --- mines and then get into a discussion, or do you want to go mine by mine?

**MS. COXWORTH:** I think we'd prefer to do all three first, if that's okay.

**THE CHAIRMAN:** By all means.

**MS. COXWORTH:** Okay, thank you.

So we do want to express our thoughts, both about the local environmental sustainability of the McArthur River operation, and then more broadly about the wider global context in which uranium mining is taking place.

In terms of local environmental safety, the future of the rich McArthur River development depends primarily on Cameco's ability to deal with two key issues: the management of water inflows into the underground workings, and the long-term availability of reliable tailings disposable space.

In reviewing the re-licensing proposal for the McArthur River mine, we've considered both the onsite mining operations at McArthur River and the ore processing which takes place at Key Lake. The operational and

decommissioning plans for both sites are relevant.

The operations at the McArthur site itself seem to present less challenging local environmental concerns than those at the other two sites currently seeking relicensing.

We're pleased to note continuing improvement in effluent quality, including the decrease in molybdenum levels. Cameco now seems fairly well prepared to manage any future incursion of water into the underground workings.

We would encourage McArthur River to continue improving its environmental performance so as to reduce cumulative impacts over the anticipated lengthy lifespan of the mine.

We've drawn attention to the recommendation in the 2005 to 2009 Status of the Environment report concerning the need for additional hydrological and ecological monitoring. In instances where additional monitoring is needed for optimal management of the site, we suggest that these monitoring locations should become part of the operational licence to ensure that the data is made publicly available in McArthur River's annual reports.

Given that it is intended that no contaminated materials will be left on the surface after

decommissioning, SES anticipates that the post-decommissioning impact of the mine on the surrounding environment will be small compared to that of Key Lake and Rabbit Lake. And we accept Cameco's prediction that the site will be relatively stable over the long term.

That being said, SES anticipates that the mine shafts and surrounding geological fractures at McArthur River could provide a route for groundwater to enter the decommissioned mine. Cameco should confirm that there is no risk of groundwater interacting with contaminated mine water as a result of infiltration through the mine.

We recognize that the decommissioning plan calls for most openings to be plugged with concrete, but surely it can be assumed that, eventually, this concrete will deteriorate and become porous, allowing water to infiltrate into the decommissioned mine.

We've, therefore, suggested that Cameco be asked for a technical opinion on the likelihood of groundwater contamination resulting from migration of contaminated mine water within a 10,000-year timeframe.

The decision in the mid-1990s to use the Key Lake facilities for milling the McArthur River ore has both enabled the continuation of operation of the Key Lake mill after mining there ceased and has created a

dependence for McArthur River on a problematical tailings disposal site.

A planned expansion of the Deilmann pit capacity to enable accommodation of future McArthur River tailings is undergoing environmental assessment.

As Cameco's McArthur River technical report of 2012 noted:

"A failure to receive the necessary regulatory approval for the DTMF expansion could interrupt or prevent the interruption of the McArthur and Key Lake operations." (As read)

Issues to be resolved at the Key Lake site have been discussed in our concurrent submission regarding that site. We have identified concerns about the advisability of allowing the tailings level in the Deilmann pit to be raised, about the long-term prevention of contaminant flow from the Deilmann pond into the surrounding environment and about the perpetual care of the site after decommissioning.

Until these issues are satisfactorily resolved or until a good alternative plan for management of tailings is approved, we believe it would be irresponsible to license further mining at McArthur River. At most, we suggest that a two-year licence be considered,

which would allow time for completion of the Key Lake expansion environmental assessment process and for the making of decisions about the future of the Deilmann pit.

It may be necessary at that time for Cameco to present a new McArthur River licence proposal containing a different tailings management approach.

My colleague, Peter Prebble, will now address the Rabbit Lake proposal and will discuss the broader issues that currently prevent us from supporting relicensing of any of the three sites.

**MR. PREBBLE:** Mr. Chair, Members of the Commission, thank you for the opportunity to present before you this afternoon.

The Saskatchewan Environmental Society would first like to address Cameco's request to extend its licence for the Rabbit Lake uranium mine from five years to 10 years.

We do not support a 10-year relicensing request. Rabbit Lake is a site that, over the next few years, faces many important reclamation and decommissioning decisions that merit public input and CNSC review at least every five years.

Adding to the challenge that this is a site where the total contaminant loading of the local environment over the lifetime of the mine mill operations

has been high.

For instance, when the Rabbit Lake mine first opened, there was no effluent treatment system. Even as recently as the period 2003 to 2005, annual releases of effluent into the natural environment at the Rabbit Lake site included over 22,000 kilograms per year of molybdenum, over 1,200 kilograms per year of uranium and over 50 kilograms per year of arsenic.

Moreover, the Rabbit Lake operation sits adjacent to Wollaston Lake, one of the most important freshwater lakes in our province. Cameco is hoping to develop new ore deposits at the site and to expand the Rabbit Lake tailings pit.

These activities next to such an important Saskatchewan lake merit a regular five-year review.

Let me turn now to the matter of new conditions that should be attached to the Rabbit Lake site licence.

First, we note that this relicensing application is taking place without an up-to-date State of the Environment report for Rabbit Lake. Cameco commissions these reports every five years.

The State of the Environment report we currently have before us is for the period 2005 to 2009, and is thus out of date.



We recommend that your Commission require that, at the time of the next relicensing application, a current State of the Environment report is on hand. CNSC should ask that the timing of these reports take place in sync with the relicensing process.

Second, we've had the opportunity to review once more the work of the 1993 Federal Environmental Assessment Review Panel that originally considered the application to develop Eagle Point, Collins Bay A Zone and Collins Bay D Zone.

We note that one of the most important recommendations of that Panel has not been implemented, namely, the establishment of an environmental management committee specifically for the Rabbit Lake site that would include current regulators, representatives from the community of Wollaston Lake, representatives from the Hatchet Lake First Nation as well as representatives from the scientific community and from informed not-for-profit environmental groups.

We recommend the formation of such a committee now and propose that it play a major role in working with Cameco on the reclamation, decommissioning monitoring and post-decommissioning monitoring of the Rabbit Lake site.

That will -- that's what was envisioned by

the 1993 FEARO Panel, and it's particularly pertinent in light of this morning's discussion on the need for more independent monitoring of environmental impacts and more community involvement in reclaiming mined-out sites.

Third, we recommend that all future waste rock and tailings reclamation at the Rabbit Lake site take account of decommissioning experiences on other uranium mine sites. And we're thinking particularly, for instance, of Cluff Lake, which is in a relatively early stage of decommissioning.

I think it's really worth watching waste rock developments there. For instance, I note that nickel concentrations in groundwater have been rising since 2006 at the Claude waste rock pile. These are the kind of things I think Cameco can learn from in terms of decommissioning its own site.

And we also want to emphasize that the waste rock reclamation work at Rabbit Lake needs to be based on the assumption that total precipitation will increase and that the frequency of intense precipitation events will rise sharply.

In an April 2013 report, the National Oceanic and Atmospheric Administration predicts a 20 to 30 percent increase in precipitation is likely over large parts of the northern hemisphere. Moreover, as is evident

from flood events this summer in many parts of North America, very intense precipitation events are on the rise and these have real implications for waste rock covers.

We therefore suggest that CNSC ask Cameco to undertake additional measures that will reduce the risk of accelerated erosion and gully formation on its waste rock piles, due to the predicted occurrence of more intense rainfall events in the future. Such measures should include, first of all, a thicker cover of crushed clean waste rock and till on mineralized waste rock piles that remain to be reclaimed. These covers should be at least one-and-a-half metres thick.

Additional measures should include design of small catchment areas on waste rock piles to reduce peak flows during high rainfall events, use of meandering drainage paths on waste rock piles, successful establishment of vegetation on waste rock piles and ensuring that drainage channels on mineralized waste rock piles are well armoured and sufficient in number to handle intense rainfall.

Fourth, we note to our surprise that Cameco is expressing uncertainty about whether it will prepare an environmental impact study on its proposed decommissioning plan for the Rabbit Lake site. We view an environmental impact study as a foundation for proper site

decommissioning and recommend that CNSC require it to be prepared.

The EIS should carefully predict contaminant movement and the surface water quality on the Rabbit Lake site over time under the recommended decommissioning scenario and compare that with outcomes under alternative scenarios. It should also carefully assess cumulative impacts from all waste sources on the site over time.

Fifth, we draw the attention of Commission Members to the very high contaminant levels in the sediments of Upper and Lower Link Lakes from Rabbit Lake mine operations. Sediment quality guidelines are exceeded for primary contaminants in these lakes and substantial recovery has not occurred.

Ecometrics reports on analytical work done on the Link Lakes, which estimated loadings of 190,000 megabecquerels of radium-226 and 57,000 kilograms of uranium in the upper five centimetres of the Link Lake sediment.

In setting decommissioning plans, it is important that as little as possible of this radium and uranium make its way into Pow Bay of Wollaston Lake. We're glad that Cameco is carefully studying options for reclamation of the Link lakes and is planning some form of

community consultation. We think it's important for the Wollaston Lake community and the Hatchet Lake First Nation to be closely consulted and to have access to independent scientific advice for which funding should be available.

We also want to add another decommissioning option to the mix being considered, namely, permeable reactive barrier technology. We're of the view that Rabbit Creek provides an excellent opportunity to apply permeable reactive barrier technology to remove uranium, radium, and heavy metals from creek waters.

This creek runs for 700 metres between Upper Link Lake and Lower Link Lake, and then extends another 350 metres beyond the Lower Link outflow before reaching Pow Bay. PRB technology had the potential to significantly reduce contaminant loading on both Lower Link Lake and on Pow Bay, in our judgement.

Six, we encourage CNSC to ask Cameco to plan for a more robust tailings cover for the above ground tailings management facility on site that houses 6.5 million tonnes of long live radioactive tailings, as well as a large portion of the Rabbit Lake site's more conventional hazardous waste.

This cover will need to be able to withstand thousands of years of wind erosion, frost heave, snow melt, burrowing animals, and intense precipitation

events. Cameco's current plan for a one-metre thick till cover on the entire facility is only expected to reduce infiltration into the tailings by half, and is in our judgement insufficient.

We also note that Cameco, in its preliminary decommissioning plan, proposes an application for designation of this tailings management facility as "undeveloped" two years after completion of the tailings cover. This, in our view is an insufficient period of time to assess the effectiveness of the tailings cover and of the overall tailings management facility.

Instead, CNSC should signal to Cameco that it should expect to monitor its tailings management facilities and their impacts for at least 30 years after decommissioning before any applications are made for undeveloped status and institutional control.

The real test of the impact of any uranium mine mill operation on the environment, in our judgement, comes only after the mine closes and the pump and treat system is turned off.

Seventh, we want to urge CNSC to seek independent advice on the best approach for decommissioning what Cameco refers to as the B-Zone pond, which is really the mined out B-Zone open pit at the edge of Wollaston Lake. This is a complex matter and also a

matter in which the community of Wollaston Lake and the Hatchet Lake First Nation should be consulted and should have the opportunity to seek independent advice.

In 2011 and again in 2012, Cameco reported that B-Zone pond water quality for both nickel and arsenic continued to significantly exceed Saskatchewan's surface water quality objectives. Cameco anticipates that containment concentrations will decline and hopes to breach the dike between the pond in Collins Bay of Wollaston Lake, and allow the mined out pit to mix with waters from Collins Bay.

This is a less ambitious decommissioning plan than was pursued during the decommissioning of the Collins Bay A- and D-Zone open pits and is not one CNSC should quickly approve.

The Saskatchewan Environmental Society suggests an alternate option worthy of study might be to backfill the B-Zone pond with clean, non-mineralized waste rock, which is available on site.

Eighth, we want to touch very briefly on a matter that has emerged in the public arena since our written brief was filed with you. Namely, that the Canada Revenue Agency is publicly stating that Cameco owns hundreds -- owes hundreds of millions of dollars in outstanding taxes.

One new condition of relicensing should be that Cameco resolves these outstanding tax issues in a timely way and pays any outstanding taxes that are determined to be overdue. Such payment could make more money available for badly needed initiatives in northern Saskatchewan, such as road construction and additional training spaces.

Finally, we'd like to say a few words about the broader issues surrounding the international nuclear fuel cycle and Cameco's Applications for relicensing at all three uranium mine sites.

For more than 35 years, the Saskatchewan Environmental Society has had serious concerns about the international fuel cycle and the risks it poses to human welfare and our environment. Today, however, we want to focus specifically on two broader issues that are directly related to Cameco's relicensing application.

Following the 2011 Fukushima nuclear reactor accident in Japan, CNSC asked Cameco to review lessons learned from that accident. Yet it is our view that the fundamental lessons have been missed. Cameco was an important supplier of uranium to the Fukushima Daiichi nuclear power plant. So fission products from uranium of Saskatchewan origin are now part of the serious contamination problems the Japanese are dealing with.



One lesson is that uranium fuel bundles can melt down with devastating effects, even when a nuclear reactor has been successfully shut down. Particularly in the event that electricity is not available to run the cooling systems. There is clearly a higher risk of this happening in earthquake and tsunami zones.

A second lesson is how long lasting the effects of a nuclear reactor accident can be. In the case of the Fukushima accident, approximately 80,000 people will never be able to return to their homes. Their properties are too radioactive.

Two-and-a-half years later, at the site, their contamination problems continue to be very serious. Cooling the stricken reactors still requires injecting thousands of litres of water into the reactors each day, and this process is generating tens of thousands of tonnes of contaminated water.

A third lesson is how much worse the accident could have been for the citizens of Japan given the prevailing winds and the fact that the Fukushima Daiichi plant is adjacent to the ocean. The majority of radioactivity that escaped the reactor was blown out to sea. The next time such an accident occurs, the vast bulk of the radiation released might directly impact a country's citizens making the effects of the accident far

worse.

Given Cameco's role as a supplier of the Fukushima Nuclear Power Plant, one would hope these lessons would have consequences for the way in which Cameco markets uranium in the future. But we see no sign of that.

By way of example, we're of the view that it's time to rethink the policy of selling uranium to nuclear reactors around the world that are located in earthquake and tsunami zones. The risk of serious accidents in these locations is clearly higher. Fundamental questions need to be asked about whether nuclear reactors should be operating in these locations at all.

Our biggest concern, however, is Cameco's planned sales of uranium to India in the upcoming licence period. Cameco is actively negotiating sales of uranium to India and it's reasonable to expect that a growing portion of the uranium processed at and transported from the Key Lake mill and the Rabbit Lake mill will make its way to utilities in India over the coming decade.

The Saskatchewan Environmental Society objects to Cameco selling uranium to India because India steadfastly refuses to sign the Nuclear Non-Proliferation Treaty. That Treaty seeks to prevent the spread of

nuclear weapons in the world and has the support of 190 nations that have signed and ratified it.

Only a few notable countries in the world refuse to sign the Treaty. These include India, Pakistan, Israel and North Korea. From a uranium marketing point of view, this was hardly a large exclusion list for Cameco to live with. The fact that Cameco has actively pursued a policy change in order to market to a country that refuses to sign and ratify the Nuclear Non-Proliferation Treaty does not reflect well on Cameco's judgment.

In 1974, four years after the Nuclear Non-Proliferation Treaty came into effect, India's government used imported Canadian nuclear technology in developing its first atomic bomb. In the ensuing period ---

**THE CHAIRMAN:** Excuse me. You're way out of scope. Okay? We're not here to discuss India. India has a policy discussion so please wind it up.

**MR. PREBBLE:** Sure. Let me just say then in conclusion that, you know, India's developed a hydrogen bomb in recent years. It has now 80 nuclear weapons. And the point here is, Mr. Chair, we think this -- let me just make this very brief.

**THE CHAIRMAN:** We understand the point. It's not here for discussion.

**MR. PREBBLE:** Okay. Well ---

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

We're now into the question period. And what I would like to do is I would like to start by Key Lake and we're going to do it ---

**MR. PREBBLE:** Sure.

**THE CHAIRMAN:** --- in sequence.

Key Lake? Who wants to start with Key Lake?

**MR. PREBBLE:** Thanks, Mr. Chair, for the chance to present and we'll focus on the issues you'd like to address.

**THE CHAIRMAN:** Thank you.

So we now are on -- let me get my bearing here -- 13.23. Who wants to go first?

Ms. Velshi.

**MEMBER VELSHI:** So the first question is to staff and it really is the first recommendation from the intervenor on the licensing duration to be an interim licence for two years given this environmental impact assessment or statement happening and -- for this major expansion.

So maybe you can help the Commission understand licence amendments, how this expansion may change the licensing basis for this facility or the potential for change in the licensing basis and how would

you anticipate amending that were a 10-year licence be granted?

**MR. JAMMAL:** Ramzi Jammal, for the record.

We'll start with the higher level and any specific details we'll pass it on to my colleagues.

It's very important to note that this licence renewal does not encompass the expansion. There is a different process that is taking place to include the environmental or the EIS that is through the process where the public will have an opportunity to comment on that document through the environmental process.

Now, on the licence itself that is before you, you are approving the current operational capacity, the current licence activity. And you are correct, Ms. Velshi, when you say the licensing basis which is that's what the Commission's approving the existing application, of course, in compliance with the Act and the regulation.

Any changes to the licence operation must undergo approval by the Commission. And depending on what is the request, if there is a need for environmental assessment, then the environmental assessment process is triggered under the EPA of the CNSC.

Currently, the EIS process is under the CEAA 2012 and that will continue accordingly. So no changes to the licence, no changes to the licenced

activity, no changes to the licensing basis is allowed without the Commission approval and we come before you with an application to amend the licence or authorize the amendment.

**MEMBER VELSHI:** So my second part of the question was, is there a potential for the licensing basis to change given what the scope of this expansion is?

**MR. LeCLAIR:** Jean LeClair, for the record.

First, I should start by saying the -- where we are in the process to perhaps help the Commission along.

So the EA is currently underway. It's a joint environmental assessment, federal, provincial. An EIS report needs to be made available. It'll be posted for public review for a 30-day review period. And it's subject to decision under the Canadian Environmental Assessment Act as Mr. Jammal mentioned.

The -- as the final EIS is not done, we haven't done the complete review of the EA. When we look at the EIS and we look at the results of it, we look at the -- when we talk about licensing basis, we talk about the ecological risk assessments that were originally done for the mine sites that allow us to bound the operations and tell us what the actual risks are for the receiving environment, for workers, for health.

So that's the basis. When we talk about the licensing basis, it's the programs and it's really a lot to do with the ecological risk assessments that have been previously done.

So when the -- once the EIS has been posted, there's been a 30-day review period, staff will come back with a recommendation to the Commission with regards to the decision making process at that point in time. Our recommendation will either be that the decision is within the licensing basis at which point in time any changes would be limited to the licence conditions handbook, which would be done by staff.

If, however, the recommendation is those changes are outside the licensing basis, they would then be brought forward to the Commission for a final decision. So basically, the process has to carry on.

The other thing I think is worth mentioning, there seems to be perhaps some confusion with regards to the final licensing decision on a licence renewal and EAs. We have done EAs in the past during a licensing period. In fact, we've done them for mining, we've done them for water management for instance at Cigar Lake. They were done during the previous licensing period.

So what we're doing right now is not

unusual. It's things that we've done in the past and perhaps it reflects the nature of mining itself. Change is not -- change is reality in mining which is why we actually put a lot of effort in reviewing their change management programs. So change is the nature of mining. They mine areas, they move to other areas and we're constantly assessing.

So as Mr. Jammal mentioned, we do environmental protection assessments with any major changes that go on.

So I hope that perhaps helps provide some clarity in terms of ---

**THE CHAIRMAN:** Let me push you a little bit. Theoretically -- and I want to talk to Cameco too. Wouldn't it be nicer when we go for a 10-year licence to have the SOE done on the table plus this environmental assessment about, you know, extension, which I understand will be available within two years, so wouldn't we -- wouldn't it make more sense to have all those processes done with before you go into a 10-year license?

Let me start -- let me start with Cameco.

**MR. MOONEY:** Before I answer the question, the SOE, I think I -- I just wanted to make a few points in relation to the ongoing Key Lake extension project environmental impact.



In that regard, we did have an EA approved during the current licence term at the Key Lake facility. And another of our facilities is up for relicensing in front of you today. The Rabbit Lake operation had a tailings expansion that was approved and carried out, and we still had the strong safety and environmental performance that you saw in our presentations to start these proceedings.

So having an environmental assessment approved during the course of a licensing term is nothing new, and our strong management systems support the performance that you see.

Again, on the Key Lake Extension Project, there will be a public review when it's finalized and submitted to the Province and the CNSC. So there is the opportunity for public comment in relation to that document, and the EA will be approved by the Commission.

So again, this is a transparent process with no shortage of regulatory oversight.

In the staff's presentation at the outset of the proceedings, they discussed the 10-year licence and the various compliance activities that will be carried out during that licence framework, and I think that it bears emphasizing that in addition to the Province and the status of environment reports that we provide to the

Province as part of that regulatory oversight, which is shared with the CNSC, there are other regulatory inspections and compliance activities that will continue throughout the licence period.

So I see the 10-year licence period as not necessarily a departure. It brings us back in line with other similarly situated facilities that are licensed more for the life of the operation. We're then looking at assessments as they are required and continued compliance oversight provided by not just the CNSC, but the Province of Saskatchewan, Environment Canada and Labour Relations and Workplace Safety in Saskatchewan as three other examples.

**THE CHAIRMAN:** I get all of this, but I thought that we were asking maybe an operational question.

You, as a licensee, should the EA go beyond the licensing basis, so if staff are right, you will have to go back for a licence amendment and maybe go through another public process like this. I'm sure you love those kinds of public processes.

Are you not leery about what the environmental assessment will find out and conclude?

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

And at this point in time, we're quite

comfortable with the Key Lake extension EIS and that the facility will remain operating within the existing licensing basis.

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

Now we're having a debate of the applicant's versus staff's assessment. That's Cameco's opinion that it will stay within the licensing basis. We will verify; we will assess and determine and then come back to the Commission on this.

You're asking the question with respect to the environmental impact studies, the review. We had received the EIS report. Staff reviewed and requested comments of Cameco. Cameco is in the process of resubmitting and updating the EIS.

And just for clarity one more time, the process will take its due course through the public information and consultation and public input.

Again, CNSC staff, based on the application, based on the result of the EIS, will determine if it's within the licensing basis or not.

So at this point, I'm not going to mislead the Commission, but based on the information we've got, we will have to determine is it within the licensing basis or not? So, does it require a licence amendment?

Mr. President, you asked a question about the status of the environment report. I would like to clarify two things. I've been in this chair for quite a few years, and from '08 or before '08, the status of the environment report is nothing new. It's a consolidation of the data and the information that is monitored by multiple regulatory bodies to include the licensee, Saskatchewan, CNSC. It was a request by the Commission to consolidate these reports into one report called the Status of the Environment. This is a consolidation of reports.

CNSC staff review on a frequent basis, quarterly, and when there is an event, immediately after the event, reviews annually the performance of the licensee and renders our recommendations and decisions for any actions resulting from the data that we have before us.

So again, the SOE is a revision, consolidation of the reports over a previous licensing period. It gives us a verification of the environmental risk assessment predictability as the performance falls within the environmental risk assessment predictability, and based on the licence operation and the improvements we requested the licensee to put in place, then we will predict how are they operating.

To date, all of the data we've got, all of the information we have and the information that will be consolidated in the SOE is showing, as a matter of fact, improvement, and the treatment and the management of the effluents is decreasing over time.

So the operation is stable. The SOE has shown to date very solid, stable protection of the environment. And I will ask Mr. McKee if he would like to add anything else with respect to the SOE.

**MR. MCKEE:** Malcolm McKee, the Director of Environmental and Radiation Protection and Assessment.

I just wanted to clarify the perception that may be out there that environmental regulation and review and oversight is sort of, on a cyclical basis, directly linked to the SOE.

Staff are continuously - staff within our directorate, staff within Environment Canada and the Metal Mining Effluent Program, Saskatchewan Environment staff and so on - are continuously reviewing the environmental performance of these facilities as various programs come in over time.

So, for example, the Metal Mine Effluent Ecological Effects Monitoring Programs come in, have been coming in on a three to two-year cycle. Our specialized monitoring programs related to, say, molybdenum or

selenium are on their cycles. The surface water programs are on cycles of either - submissions on quarterly to annually, and then a larger review through the compilation during the SOE.

So I just wanted to make sure there's no impression of any specific milestone periods where we just - that's when we review performance and environmental performance. That's done on a continuous basis throughout the licensing process, as all the various programs come in. Though the SOE does have the value of providing an oversight and a comparison.

**THE CHAIRMAN:** Thank you.

Another question? Dr. Barriault.

**MEMBER BARRIAULT:** On reviewing your document - let me address the intervenor - on page 1, you set out the roles of the regulatory body under number 2.

I'm not really quite sure what you mean by this. Do you mean that you're suspecting that it's not being done? There seems to be innuendo that the work is not being done, but then I'd like to ask the CNSC to respond to that, if you don't mind. It's page 1, number 2.

So if you don't mind starting?

**MR. PREBBLE:** I think the point here is, first of all, a state of the environment report that is

commissioned by Cameco, actually, is done by an independent body and provided to Cameco. Obviously they're working for Cameco, but it's an independent assessment.

**MEMBER BARRIAULT:** Are you saying that CNSC is working for Cameco?

**MR. PREBBLE:** No, no, no. I'm saying ---

**MEMBER BARRIAULT:** This is what this suggests.

**MR. PREBBLE:** Well, sir, maybe we're talking about different things. I'm looking at we recommend a five-year licence renewal period.

**MEMBER BARRIAULT:** No, I'm looking at page 1.

**MR. PREBBLE:** Okay.

**MEMBER BARRIAULT:** Of your document on Key Lake operations.

**MR. PREBBLE:** Oh, Key Lake operations. I'm sorry. I thought you were referring to Rabbit Lake operations, and I apologize.

**MEMBER BARRIAULT:** No, we were discussing Key Lake. Go ahead.

**MS. COXWORTH:** Could you clarify that question, Dr. Barriault?

**MEMBER BARRIAULT:** Yes. I'm not clear what

is meant by this. There seems to be an innuendo that this work is not being done, and if the CNSC was doing the work, that then it would be done.

So please, if you can explain what you mean by this is what I'm asking. That's all. I'm just trying to understand.

**MS. COXWORTH:** Okay. No, our concern is that some of the activities that are planned by Cameco for this 10-year period have not yet passed an environmental impact assessment.

**MEMBER BARRIAULT:** But this is not what you're saying here. The role of a regulatory body, transparency and management.

**THE CHAIRMAN:** Can I try to put - can I suggest a way of going ahead? In your document on Key Lake, page 16, you have a summary of questions and recommendations.

**MS. COXWORTH:** Okay.

**THE CHAIRMAN:** And I think they are - actually, I find your presentation really informative, and I would like to go through some of them.

So on page 16 on Key Lake, so you have a heading -- I think we already dealt with putting the present review process in context. This is the two years versus 10 years.



The next one is the role of regulatory bodies, transparency and management.

**MS. COXWORTH:** Right.

**THE CHAIRMAN:** And you've got 2, 3, 4, and I think that's what Dr. Barriault, in fact ---

**MEMBER BARRIAULT:** That's correct, but I've got a page 1. Now, maybe I've got a different document. I've got H13.23 here.

**THE CHAIRMAN:** That document, then, that summary ---

**MEMBER BARRIAULT:** That's right.

So anyway, just go ahead and explain it to me, please. I have difficulty understanding this.

**MS. COXWORTH:** And I'm still not quite sure what it is you're not understanding.

**MEMBER BARRIAULT:** I'm not understanding what is it that you mean when you're saying this, "We see some indication that this belief may not always be well-founded" when you're saying about you needed a greater degree of transparency. You don't think that CNSC is actually maybe not doing their work?

I'm not sure what you mean by this. Explain it to me.

**MS. COXWORTH:** I wish I could find ---

**MEMBER BARRIAULT:** Page 1. Page 1.

**MS. COXWORTH:** Yeah.

**MEMBER BARRIAULT:** Page 1, number 2, "Role of regulatory body".

**MS. COXWORTH:** Ah, okay.

**MEMBER BARRIAULT:** I'm sorry. I don't want to belabour this. I'm just trying to understand and clarify.

**MS. COXWORTH:** Okay. What I'm -- I guess what the intention of that statement is that I think the public has been led to believe that the regulatory system is foolproof and, you know, that there were no problems with it.

And I think what we are suggesting is that there are indications that sometimes there are imperfections in that process and that it's really important that we identify those problems so that the public confidence in the process can be improved. I mean ---

**MEMBER BARRIAULT:** Okay. Now I understand.

**MS. COXWORTH:** Okay?

**MEMBER BARRIAULT:** Thank you.

**MS. COXWORTH:** I mean, we tend to hear from people who are raising concerns about things that they consider have not been done properly, and so we are anxious to have the process as transparent and as tight as

possible so that public confidence can be increased.

**MEMBER BARRIAULT:** Thank you.

Can I ask CNSC to comment on this issue?

**THE CHAIRMAN:** Can I again -- I'm going to stick with my page 16 where you are actually bringing it down to recommendation.

**MS. COXWORTH:** Okay.

**THE CHAIRMAN:** And some of them are to do with the whistle-blowing issue and I think we've discussed this today, so I don't think we -- this is on number 3.

On number 3, "Unscheduled inspection", staff does it already and they can amplify if they want. And for independence, again, we heard that there's all kinds of independent -- you, yourself, mentioned the SOE and the Ministry of Environment.

So I think that that -- in this particular aspect of your presentation, many of the questions have been answered.

Unless there's something else that needed to be added on item 227, staff or Cameco, please jump in.

Number 7, we will -- the environmental quality committee will appear in front of us and we'll talk to them about this.

**MS. COXWORTH:** Okay.

**THE CHAIRMAN:** And they do provide an

independent view on some of those independent measures, if I understand correctly.

Don't feel that you have to reply for ---

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

And again, I'll ask Kevin Himbeault to respond to one of the pieces in relation to the operation of the RO plant, specifically the allegation that events are not being reported.

Again, Cameco takes protection of the environment very seriously, and Kevin can give some background in regards to the operation of that particular facility at the Key Lake operation.

**MR. HIMBEAULT:** Thank you, Liam. Kevin Himbeault, for the record.

The reverse osmosis facility at Key Lake is a state-of-the art facility, really, for treating mine water and provides excellent quality water in our discharge.

Certainly we monitor that on an ongoing basis, routine daily sampling of the quality of that water, and our data that we have indicates that the water is consistently within the guidelines of release to the environment.

**MR. JAMMAL:** Okay, Mr. President. It's

Ramzi Jammal, for the record.

For clarity because we have different page number, you're asking number -- for staff to comment from 2 to 7, and number 7 is that the environmental quality committee be expanded to include several members with sufficient scientific background, okay.

So I'll ask Mr. Jean LeClair, who's a member of the EQC, to describe to you the process.

**MR. LeCLAIR:** So I think it's important to note the environment quality committee is actually intended to be comprised of representatives from the communities.

There's 35 communities that are part of the EQC. They come in, they're actually selected by their communities to represent their communities, and they're a vehicle to get information to the community and back from the community through this EQC.

This is actually the product of those panel hearings when a recommendation was put forward for environmental management committees. That's what the EQC was brought there for.

**THE CHAIRMAN:** No, but the recommendation is to ---

**MR. LeCLAIR:** So I'm just -- I'm getting to that.

So supporting that is the Northern Mines Monitoring Secretariat that includes the Canadian Nuclear Safety Commission, Saskatchewan Ministry of Environment, Saskatchewan Workplace Labour Relations Safety.

It includes the regulators who, in fact, have sufficient scientific background to play a responsible role in monitoring and challenging environmental performance. That's my job.

That's what we do. That's what the Ministry of Environment does. That's what Workplace Labour Relations Safety does.

So this is all part of the EQC.

The other thing I should mention is, in fact, the Saskatchewan Environment Society, earlier this year, in fact, for the EQC, brought forward and did an independent review of the changes to the regulations for the Province of Saskatchewan as well as a review of the changes to the *Canadian Environmental Assessment Act*. And they brought this forward to the EQC.

So in effect, Saskatchewan Environment Society provided an independent input to the EQC earlier this year. So I'm not quite sure what the issue is here.

I think it's covered from several angles.

**THE CHAIRMAN:** Do you want to elaborate?

**MS. COXWORTH:** Ann Coxworth speaking.

Yes. About a year ago, the environmental quality committee requested that they hear from somebody other than industry and government. And we were invited to do a presentation to them, at the end of which some of the community people said to us, "We really wish you guys could come up to our communities and explain this to our people because, you know, we can't explain it to them nearly as well".

So you know, I think it would be very helpful if some of the communities could have more access to information sources that are seen as being independent of industry and of the regulator.

We did not have the opportunity to follow up on the request to go up to speak in their communities, but we got the impression that there was -- that there was a need for some outside resources to be brought to that committee.

**THE CHAIRMAN:** Would it make sense for you to become a member of the EQC or some of those sub-committees?

**MS. COXWORTH:** Sorry?

**THE CHAIRMAN:** Would it make sense for you, for your organization ---

**MS. COXWORTH:** Yeah.

**THE CHAIRMAN:** --- to become members of

some of those working groups?

**MS. COXWORTH:** I would think so.

**THE CHAIRMAN:** Okay. I think there's a hint there for some of the people who are involved in this.

**MR. LeCLAIR:** So two things. First, I should mention that we will be hearing from the Northern Saskatchewan Environmental Quality Committee later on in the hearing.

I should mention that the decisions with regards to the functioning of the EQC is actually a provincial process. It's all tied to the surface leases as well.

We do have a gentleman in Saskatoon who's Executive Director for Saskatchewan Ministry of Environment who perhaps can speak to this issue.

**THE CHAIRMAN:** He's the Ministry of Environment?

**MR. LeCLAIR:** He's in Saskatoon. We'll see if we can get him online again here.

**THE CHAIRMAN:** Okay. Ministry of Environment, can you hear us?

Okay, we'll try. They will be here.

**MR. KOTYK:** Can you hear me?

**THE CHAIRPERSON:** Sorry, please identify



yourself.

**MR. KOTYK:** Hello, this is Wes Kotyk, Executive Director of the Environmental Protection Branch of the Ministry of Environment.

**THE CHAIRMAN:** Okay, the connection is really bad. So let me see if we can get an answer to a question.

Will it make sense to put a little bit more scientific views into the EQC process? In other words, independent of government and the regulator and the licensees, to bring in maybe academia and maybe the Saskatchewan Environmental Society?

**MR. KOTYK:** Well, I mean, this would just be my opinion. I haven't been participating directly in that, but I think wherever there is opportunity for additional technical expertise or input would be welcome in that process. I wouldn't see any problem with recommending that.

**THE CHAIRMAN:** Okay, thank you. Anybody want to ask a question?

We got lots of material yet to go through, so what I would like to propose is, let's go to the next - on page 17, there is a comment about "general approach to decommissioning".

People, do we have questions about this

particular general area? While people are pondering, I think we need to have a little discussion about when and how institutional control comes into play.

Staff, you may want to do a quick overview as to when is that you are allowing a facility to go into institutional management?

**MR. LeCLAIR:** A decision to recommend to move to institutional control would be based on completion of all the decommissioning work and evidence through monitoring -- the environmental monitoring programs that are demonstrating that the conditions are stable, that they are as they were predicted and there's confidence going forward that at that point in time it can be transferred into institutional control.

So it's tied to completing the work and then verifying and confirming that what we see happening is in fact what we expected to see.

**THE CHAIRMAN:** So it's both the regulator and the Saskatchewan government basically that have to agree and do they have the funds to manage it?

**MR. LeCLAIR:** As part of the Institutional Control Program, there is a fund that is set up with the province -- I can't speak to it in elaborate details, but there's a funding that's made available that's provided to the province to be able to continue to proceed with the

work going forward that includes ongoing monitoring and additions of funds in order to deal with any events that might occur.

So there's a process and there's a program that the province has been working on now for a few years.

**THE CHAIRMAN:** For the intervenor, if I understood right, nobody is walking away from a tailing just like that.

**MR. PREBBLE:** Yeah, well, I think what we were concerned about, and I'll just use Rabbit Lake as an example here, is that if you look at the plans, for instance, for the above-ground tailings management facility -- and this is just a proposal from the proponent, it doesn't mean of course that CNSC would agree with this proposal -- but the proposal from the proponent is that two years after the above-ground tailings management facility cover is complete, they would like to apply to have that site considered to be undeveloped. And, presumably, the next step would be movement into the Institutional Control Program.

And what I think we're saying is that, you know, it'll take a significant period of time to see what happens in terms of whether or not there is contamination of groundwater, for instance, from that tailings management facility.

It may take 20 or 30 years to evaluate that and that we shouldn't hurry to consider the site undeveloped and ready for transfer to institutional control.

So we're urging Canadian Nuclear Safety Commission to send a message to Cameco that they're going to need to monitor these facilities for a lot more than just two to five years, that this will be a longer term process and that they will have ongoing responsibilities to ensure that, for instance, there's no groundwater contamination before applying for the Institutional Control Program.

And this seems to be a good time to clarify that. You know, rather than waiting too much longer, I think it's good for Cameco to know that right from the beginning.

**THE CHAIRMAN:** I'm sure, Mr. Jammal will have something to say, but I've got to tell you, some of my experience, the Government of Saskatchewan is not eager to take over the facility unless they feel that it's reasonably clean. Let me put this in precise language.

Mr. Jammal?

**MR. JAMMAL:** Thank you, Mr. President. For the record, it's Ramzi Jammal.

Sir, it's more than clean. Will the

Saskatchewan Environment Society -- and I'm just going to read to you. The ICP is a regulatory process where no -- I'm just going to read the first condition for you.

"That the site holder satisfies the Minister [which is the provincial Minister] that the site holder has completed and complied with the conditions of any environment assessment before..." (As read)

There should -- it is a regulatory process. An application is made to the province in order to ensure and assure the province that everything has been met.

In addition, the CNSC must recommend the release of the area to the Saskatchewan government. In addition to it that they must have the funds in place and so on and so forth.

And, again, I'm not going to dwell on it, but the process is on the Saskatchewan government web site, very very clear, that the Minister has to be satisfied that everything has been complied with, to have the proper funds and long-term management.

So Cameco is -- I'm not going to speak on their behalf -- they cannot move away from it until we, the CNSC, which we've done to other sites before, has released the site for an ICP.

**MR. MOONEY:** It's Liam Mooney and I'm going to ask Barry Esford to -- I know we're jumping around bit == but there was a reference to Rabbit Lake and the monitoring period in relation to that. But I think it's important to emphasize that we're proceeding carefully to identify and implement effective solutions to protect the environment for the long term.

And with that, I will give it to Barry to discuss the specific issue on the monitoring period.

**MR. ESFORD:** Barry Esford, for the record.

With respect to the AGTMF at Rabbit Lake, that facility, we're currently -- we have been monitoring that facility for a number of years now and we've been advancing the reclamation plan for it and we'll continue to complete monitoring going forward as we continue to advance that plan.

So although we're talking about a couple years at the end, that's really just the very final stages of a very long ongoing monitoring program.

**THE CHAIRMAN:** Ms. Velshi?

**MEMBER VELSHI:** I have a quick related question. So does the decommissioning fund address this institutional control program?

**MR. JAMMAL:** Ramzi Jammal, for the record.

No. The financial guarantees and

decommissioning fund is a separate process that belongs to the CNSC. As the application is put forth for the institutional control, then there's a requirement for the funds.

So I won't call them two separate processes, but they complement each other.

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

I did want to clarify that the preliminary decommissioning cost estimate does include the entry of the facility into the institutional control framework as one of the line items.

**THE CHAIRMAN:** But from then on, Saskatchewan government takes over. They have their own statutory program to deal with this?

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

And that's correct. There's the *Reclaimed Industrial Sites Act* and, again, there's a provincial representative on the phone from Saskatoon who could probably speak more effectively to that regime.

**THE CHAIRMAN:** Okay, Saskatoon, we've been speaking on your behalf. Did we get it right?

**MR. KOLYK:** Yeah, for the record.

Can you hear me?

**THE CHAIRMAN:** Yes, we can.

**MR. KOLYK:** Okay, good. Yes, things have been -- you guys have been answering it pretty good on our behalf. What does happen with our process, so I'll back up a bit. We do have the Decommissioning and Reclamation Plan financial assurance requirement to have that reviewed every five years.

And as Liam indicated, that we do expect to see some component of that cost to identify what are some of the post-closure monitoring costs in the acceptable financial assurance and D&R plan.

When the decommissioning is at the point where decommissioning is underway or it is complete. The company would do some monitoring and -- but prior to requesting or prior to it going into institutional control and the government taking it over, it would have to be released by CNSC as mentioned earlier. And then an appropriate financial assurance posted for what would be deemed an acceptable monitoring period.

But that would only be when we are comfortable that things are stable and that a reasonable expected long term monitoring plan can be properly costed before we would accept that.

**THE CHAIRMAN:** Okay, thank you. I will need to move on to -- now to, again, I'm on page 17 and 18. Where SES had some concern about the actual detail --



the tailing management in the management facility and in the aboveground. And the decommissioning of the Deilmann North waste rock.

Commissioner? Anybody want to ask questions?

**MEMBER TOLGYESI:** Water covers. What we are saying, that according to the presentation first of all, in the United States according to intervenor, it is only the dry cover which is accepted, where as in Canada we have other types of covers and elsewhere in the world.

Could you comment on that because that is something which should be clarified because in some conditions probably some other covers could be -- should be considered.

**MR. LeCLAIR:** Jean LeClair, for the record. First I'd like to begin by saying that these are preliminary decommissioning plans. They are not detailed decommissioning plans. There is no request here for approval to proceed with decommissioning the tailings to do this. That would be subject to final detail design and a full review for the application.

The water cover systems, either option can work and it depends on the conditions that you are dealing with. In fact, in the USNRC comments, one of the issues was being able to maintain the water cover.

This certainly would be very important in an arid climate which you would see in the United States in several locations but not in Northern Saskatchewan. The abundance of water is not an issue. It's not something that is at stake.

So it is important that when we look at context with regard to an American position versus a Canadian position, you need to understand what you are dealing with, with regards to the climate, with regards to the geology in the area and all those factors would be considered when we are looking at these designs.

There actually have been cases of course where water covers have been applied to tailings. I should mention not just uranium mine tailings. I think again we need to remind people that tailings management is not something that is unique to uranium mining and milling. It is something that is important for all metal mining activities where tailings need to be managed in the long term.

So when they talk about thing like acid generation and oxidizing conditions, these are things that we see in some tailings facilities in other industries, other mining industries, but won't necessarily apply in our current context.

So it is an important point, it is

certainly something we look at and we consider. But we need to look at this particular case for what it is, the conditions that we are dealing with, the climate that we are dealing with and the nature of tailings that we are managing.

I'll ask -- perhaps if Malcolm McKee can add a little bit further.

**MR. McKEE:** Malcolm McKee, Directorate Environment Radiation Protection and Assessment.

Just to, sort of, succinctly package it, the USEPA technical document does specifically state that they do not consider water covers to be acceptable but they do not they are considered acceptable in Europe and Canada based on site specific considerations.

CNSC has approved both earthen cover and wet covers with the most appropriate design for that specific site being the one selected.

The USEPA points out that when considerations are being given for -- where use of a wet cover is acceptable, the most common issues you see arising are use of it as a temporary cover with an earthen rock cover applied at decommissioning. So use of a cover during operational for radon control and other things.

And then an earthen cover decommissioning used at a site where thickened tailings have been disposed

below grade in open pits, a similar situation we have. Or where the effect of the water cover is seriously evaluated prior to remediation design.

The U.S. Nuclear Regulatory Commission has slightly different approach. Again where they -- their position that an earthen cover or an approved alternative. So essentially they -- if you provide an argument for an alternative to the earthen cover, the Nuclear Regulatory Commission is open to consideration of those.

The key issue for the USEPA is that 25 of the 26 tailing sites that they have been responsible for decommissioning are in arid regions with -- where evaporations exceeds precipitation. So water covers are quire problematic in that kind of environment.

**THE CHAIRMAN:** Thank you.

**MEMBER TOLGYESI:** We didn't hear anything about Cameco. They are proposing that.

**THE CHAIRMAN:** Go ahead.

**MR. MOONEY:** Liam Mooney, for the record. I am going to ask Barry Esford who is our Manager Geoenvironmental Engineering corporately, but was also at the Key Lake operation working with Les and Kevin for some period of time before he joined us.

I do want to emphasize that our long term goal here is to see the facility in a safe, secure and

stable state. And the water cover that we have in mind for the DTMF at this point fits that criteria.

**MR. ESFORD:** Barry Esford, for the record. With respect to the DTMF, what we are proposing is a relatively thick water cover depositing tailings to 505 elevation.

And then the DTMF in that area there was formerly a lake and the lake level was 518. So we would expect a fairly thick water cover over 10 metres of water, over the tailings post-decommissioning. So we wouldn't expect under climate change or those types of scenarios to see that water cover disappear.

Similarly at the Rabbit Lake in-pit TMF, we have looked at the sensitivity of the water cover, if you will, there it's a little bit different situation. It's a saturated drainage layer over the top. So we've looked at the sensitivity of that saturated drainage layer to climate change and that facility is in a groundwater discharge zone which is less sensitive to climate -- changes in precipitation. So we feel confident that we will be able to maintain the water cover over both facilities.

**THE CHAIRMAN:** Okay. Another -- other questions? Can I move on? Other questions? On -- more questions?

**MEMBER TOLGYESI:** The question was about these tailings also. Do you do a kind of compaction testing? Because as you consider that the tailings are compacted, eventually they become impermeable and they could act differently. So do you have any program which is following this?

**MR. MOONEY:** It's Liam Mooney, for the record. Again, I'll ask Barry Esford to expand on the work we do to manage our tailings facilities.

**MR. ESFORD:** Barry Esford, for the record. Yes we do do extensive testing of our tailings both on an ongoing basis, operational monitoring of those tailings as they are produced. Plus we do regular drilling programs to investigate the in situ properties of the tailings. We do consolidation tests to look at both how the tailings are consolidated and predict the long term consolidation.

Consolidation is a step in the decommissioning plan as well, as those tailings will consolidate under the load of the final cover.

**THE CHAIRMAN:** Any more? Again I'm focusing on tailing. I'd like -- there were some issues that were raised. I'd like to quickly maybe address some of them.

So let me start with one, where did they mining for nickel come from? Somebody -- is that a

feasible proposal?

**MR. MOONEY:** It's Liam Mooney, for the record. That is not economically feasible at this point and time.

**THE CHAIRMAN:** You want to ---

**MS. COXWORTH:** It has been suggested to us that it would be economically feasible and that the issue was one of whether or not Cameco would have to pay royalties on the nickel that they extracted.

**THE CHAIRMAN:** Okay, I mean, these are some things you guys can debate offline.

**MS. COXWORTH:** I might also just add that this would be a way of reducing the release of nickel into the environment so that it would have, even if it were only marginally economically beneficial, it would have an environmental benefit.

**THE CHAIRMAN:** Is there a concern about the nickel released to the environment right now? Staff?

**MR. MCKEE:** Could you repeat the question, sorry?

**THE CHAIRMAN:** Is there a concern about nickel in the environment?

**MR. MCKEE:** No. I mean, all waste streams on the sites are collected right now and go through the water treatment system and nickel performance in the water

treatment system is good.

**THE CHAIRMAN:** Okay. We'll get into those discussion when we go back to.

I'd like to move on to reverse osmosis, there were things, a few points made about that. Who wants to ask the question? Well, let me ask the question. Where do you get this information about people cooking the books, so to speak? This sounds to me like fraudulent activity.

**MS. COXWORTH:** We had -- we were approached by three separate individuals who are very familiar with the work site who brought these various concerns to us and wanted to make sure that they were brought to the attention of the Commission. We're not at liberty to identify these people.

**THE CHAIRMAN:** Cameco, would you -- how do you assure that there isn't such a thing being done and presumably, if it is being done, you would detect it in the release somewhere?

**MR. MOONEY:** Liam Mooney, for the record. I will ask Les Yesnik, as a general manager of that facility, to give you some details in that regard. But I want to emphasize again the reporting culture that we encourage at all of our sites and the periodic safety culture assessments that we do that give positive feedback



on the strength of the safety culture, which again includes a strong reporting culture.

**MR. YESNIK:** Thanks, Liam. Les Yesnik, for the record. And I'll start by just emphasizing some of the points that Kevin Himbeault brought up previously.

The reverse osmosis plant is a world-class facility releasing very high purity effluent. And every day, we treat upwards of four Olympic-sized swimming pools of effluent from this facility, so over 20,000 cubic metres of water is treated. And a majority of that is released to the environment at a very high, pure state.

We do have very robust start-up procedures for this facility, where we ensure we monitor and ensure that we are meeting the pH on the discharge. We also have environmental monitoring and our environmental department does monitor this discharge daily. They would identify if there's an issue. And if there's an issue, as Liam notes, it would be reported. And that is the integrity piece. We ensure that we report when there are issues.

**THE CHAIRMAN:** You have another source that claim that, a confidential source, that it was not uncommon for trucks to deposit ore into the waste rock pile. Maybe Cameco can -- what I'm trying to ascertain is can somebody get away with doing it unnoticed?

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

record. And again, I'd ask Les Yesnik to give you some detail in that regard.

**MR. YESNIK:** Thanks Liam. Les Yesnik, for the record. We do not have any evidence to support this claim for sure. Protection of the environment certainly is one of our highest priorities and focuses when it comes to managing the Key Lake Operation.

And you can be assured that when the resource was being mined at the Key Lake Operation, of course we had a very well laid out metallurgical accounting process to recover that ore.

All the trucks, as they were coming out of the mine, were being scanned and it was documented what the great of that material was, it was either directed to a waste storage or it was directed to either clean or mineralized waste or off to the mill for processing.

That robust accounting gives us assurance that -- and the management at the time give us assurance that that resource was being accounted for and recovered to ensure, you know, you got the value out of the deposits.

**THE CHAIRMAN:** You'd like to comment?

**MS. COXWORTH:** Yes. I think that it's important to note that this was suggested as a historic practice, not a current practice.

**THE CHAIRMAN:** Any other questions before we take a break? Moyra -- Dr. McDill, sorry.

**MEMBER McDILL:** Moyra is fine. With respect to the reverse osmosis plant and the probe, is there any way that a calibration would involve a cup of water, a beaker of water in any way whatsoever? If this were occurring, could it possibly be correct in some way?

**MR. MOONEY:** Liam Mooney, for the record. And I'm going to ask Kevin Himbeault to provide some more details in relation to that. But again, the routine monitoring that we do of that facility gives us confidence of the quality of the water.

**MEMBER McDILL:** That's fine. But maybe there's something happening which is actually correct? I don't know. It seems a bit odd that a probe would be stuck in a coffee cup of water. But maybe a beaker of distilled water at 20 degrees. I don't know. Just asking.

**MR. HIMBEAULT:** Kevin Himbeault, for the record. Certainly one of the requirements to maintain the operation of the reverse osmosis facility is to ensure that the pH probes are calibrated and functioning properly. There is a preventative maintenance plan in place for that and there is a weekly calibration requirement on those pH probes.

So those probes do need to be removed from time to time out of the in line stream to be calibrated in a pH buffer solution. So that could be what the reference is alluding to and yes, that is something that does occur and it is required to occur to ensure that we have proper functioning.

**MEMBER McDILL:** Again, I have no idea if this has occurred, but is it possible that someone who is observing something of this nature might think it's operator bypass, when in fact it is calibration? I address that to you. If someone is observing something and they don't understand, then it can be misinterpreted very easily.

I don't know if that's happened, I wasn't there. I'm just making a natural inference from a lab. This is the sort of thing that happens in a lab.

**MS. COXWORTH:** It's hard for me to answer that question. But it was certainly suggested to us that it was a deliberate action when problems were anticipated with the quality. Because they didn't want to precipitate a closedown of the plant, which would slow down their operation. Again, I'm not in a position to know the validity of that comment.

**MR. YESNIK:** Les Yesnik, for the record. I'll just add one more comment. We also have independent

sampling by our regulatory groups at times. And of course, if there was an issue found, they would certainly make us very well aware of it.

**MEMBER McDILL:** Maybe staff could comment a little on this sort of possibility.

**MR. LeCLAIR:** Just to note the comment with regards, as you mention, it's quite common for calibration of pH meters to actually have a cup of water with the buffer solution to verify. So I think there's some merit to that.

I think the other thing that's worth mentioning is the -- that water treatment system can in fact be shut down for extended periods of time without affecting the operations. These are not systems that need to be operating continuously in order to ensure ongoing production. They're drawing water from a number of locations.

If they need to shut it down to do maintenance, do these kind of activities, they can do it. So again, we don't have any evidence, but -- again, perhaps I can ask Tom Gates, who's the project officer for Key Lake. If he could perhaps comment a bit more on the system itself.

**MR. GATES:** Yes. With respect to the water quality leaving an RO plant, the principal operation of a

plant of this nature is it's a nano-filter and water needs to be forced through it and the constituents are left on the filter and rejected. And those are -- that's the reject water. The permeate goes out. So there's very little opportunity to have off speck water when things are upset.

So also with respect to an online PH metre, they do need to be calibrated from time to time. They're taken out, they're calibrated in a cup. So I think these are the things that are going on.

And there is independent monitoring that goes on, side-by-side monitoring done by Environment Canada and also by Saskatchewan Ministry of Environment.

**MEMBER McDILL:** Thank you. There may be some confusion between what the witness is seeing and what's actually happening and the perception that a coffee cup is being used to, you know, as opposed to a labelled calibration cup, you know.

Good ISO standards are to label everything so.

**MR. GATES:** Anything else?

**THE CHAIRMAN:** Just an observation. You've done an awful lot of work analyzing this. I still don't understand why you didn't get a visit to Key Lake to sit down and chat about some of your concern.

It's on a principle that you're avoiding SCS, I'm just asking.

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

And no, we're not avoiding SCS. We did sit down and meet with them in advance of these proceedings to discuss some of the issues that were in their CMD and provide further information in relation to our operations.

**MS. COXWORTH:** I might comment that in our proposal for participant funding, we had requested funding to do a site visit to each of the sites and that was turned down. We -- several years ago when this process was managed under the FEARO process, the FEARO process did fund us to go on a site visit and -- to Rabbit Lake, yeah, not to Key Lake.

So, you know, I think there's been a change in the attitude or the expectations of participants.

**THE CHAIRMAN:** We -- unfortunately, we have to take a break. We will do a 10 minute break and we'll continue with McArthur and Rabbit Lake. Thank you.

--- Upon recessing at 4:40 p.m./

L'audience est suspendue a 16h40

--- Upon resuming at 4:56/

L'audience est reprise a 16h56

**THE CHAIRMAN:** Okay. We would like to continue.

Just in terms of a time check, we would like to break -- the next break around 6:30 if it's all okay. And we got a lot of territory to cover. So a little hint for everybody in terms of replies and questions.

And we going to McArthur Lake -- McArthur River, sorry.

And let me open up for questions. Anybody has a question on McArthur River?

**MEMBER HARVEY:** Yes, on page 2, the third paragraph, in the view of the Saskatchewan environment and society, one logical policy change would be to CNSC to prohibit Canadian company from selling. Would you just comment that? We'll ask that to the staff, what CNSC has to do with that -- with such policy?

**THE CHAIRMAN:** Sorry, I missed. We're talking about -- where are you?

**MEMBER HARVEY:** Page two.

**THE CHAIRMAN:** McArthur River.

**MEMBER HARVEY:** Yeah. McArthur. We are not on McArthur?

**THE CHAIRMAN:** Oh.



**MEMBER HARVEY:** This is a document that -- well it's for the three operations there. I'm sorry.

**THE CHAIRMAN:** Are you -- okay. So are you ---

**MEMBER HARVEY:** That's August 2013 and that's submitted -- the (inaudible) for McArthur River and Rabbit Lake operation. That's a comment to the three ---

**THE CHAIRMAN:** Oh, okay. This is their ---

**MEMBER HARVEY:** I can wait. If you want to go directly to McArthur.

**THE CHAIRMAN:** I think they are -- this is the CMD 14.21 but it has two parts to it, right? It has the first one which deals with -- with McArthur River. The second one is a CNSC condition for Canadian sale of uranium in the ---

**MEMBER HARVEY:** That's right. That's the place, yes.

**THE CHAIRMAN:** We ordered that -- kind of out of scope here.

**MEMBER HARVEY:** Yes, I know. I wanted to --

**THE CHAIRMAN:** What do you want?

**MEMBER HARVEY:** --- answer.

**THE CHAIRMAN:** Okay. Go ahead and ask the question.

So we're on page two, what paragraph?

**MEMBER HARVEY:** At the third paragraph.

**THE CHAIRMAN:** Okay. This is in terms of selling uranium to tsunami or earthquake sensitive facilities.

**MEMBER HARVEY:** Well my question was, who established such policy if it would be pertinent?

**THE CHAIRMAN:** Well let me try to reply it. Okay? We will not regulate another country safety. They have -- wherever we sell material to have their own regulator and they have their own government and they have policy decision. So it will be a bit presumptuous on Canada to say to Japan, "You know what? We're not going to sell it because you don't know what you're doing." You may disagree but that's the government policy.

Next question.

Anybody has another question?

Dr. McDill.

**MEMBER McDILL:** Thank you.

Maybe I could ask both -- but first Cameco and staff to talk about the assumption of plugging with concrete and years going by. Give us a starting point.

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

And again, in our decommissioning planning,

we want to ensure that the facilities are safe, secure and stable for the very long term.

So I'll ask Barry Esford to provide some background on the proposed plugging with concrete as well as the relationship for rehabilitating it through the institutional control.

**MR. ESFORD:** Barry Esford, for the record.

With respect to plugging the underground workings post-decommissioning, I think that, you know, if you look at sandstone is often calcite cemented. So it's really -- it's nothing different than that. You have natural fracturing in the ground in place. We've actually removed most of the radiation if you will, most of the uranium product. That's what we're recovering.

So, you know, post-decommissioning, I don't see this as a concern.

**MR. MOONEY:** Sorry, I just close that by indicating as part of the institutional control funding it -- of the two funds that are established, one would look at replacement of the concrete caps once the site is in institutional control on a periodic basis.

**MEMBER McDILL:** I think the intervenor's concern is more the 10,000 year timeframe. Pyramids aren't getting that far yet. So reassure us that there is some mechanism over 10,000 years. You know, it's not my

kids, my kid's kids, kid's kid's kids. I assume they're going to be much more intelligent than we are but 10,000 years is a long time.

**MR. MOONEY:** Liam Mooney for the record. Again I'll ask Barry Esford to expand on the McArthur River decommissioning and ground water planning that has gone into the proposed decommissioning plants.

**MR. ESFORD:** And Barry Esford for the record. So McArthur River is a deep underground operation. So, we're talking about 680 metres deep. So again, I guess I'm not clear on your question or the concern.

**MEMBER McDILL:** I'll quote the intervener:

"We were there for invite Cameco's technical opinion on the potential for ground water contamination resulting from migration of contaminated mine water within a 10 thousand year timeframe."

And I'll -- once, once you're -- you've answered I'll pass it over to staff.

**MR. ESFORD:** Barry Esford for the record. So, post decommissioning, when we're done operating the site, the mine will be flooded and the natural ground water table will re-establish itself. And, with the mine

workings, deep underground they will have some interaction with the natural ground water flow. But we wouldn't expect this to have a significant adverse effect.

**THE CHAIRMAN:** Staff?

**MEMBER McDILL:** Sorry, I miss whether you said and or --- I'll pass it over to staff.

**MR. LeCLAIR:** First things first. It is common practice in any underground mine to cap and seal the shafts. It's a common practice. You'll see that across country. You'll see that around the world. And it's for the purposes of controlling access. It is so people don't fall down the hole. It's not really meant for controlling water movement.

It's customary also to flood the mines and reason why is to prevent further oxidation of the expose rock in the workings. The primary process is by which contaminants move into the environment, are diffusive processes that are quite slow. And at depths of 600 metres, the distances that would need to be travelled are quite long.

So, there's several models that are out there that can predict the movement of contaminants through the ground water pathways and we tend to see that those predictions then show that the release is to

surface water bodies where it really starts to matter, would be very, very low and wouldn't present a problem in the long term.

**MR. LeCLAIR:** I believe Malcolm McKee has some further comments.

**THE CHAIRMAN:** You don't have to.

**MEMBER McDILL:** So we're talking about diffusion, at various slow rates and very deep depths and established practices. Now there's one more coming.

**THE CHAIRMAN:** Okay. Any other question I think we would like?

**MEMBER McDILL:** I think there's one more from staff. No.

**THE CHAIRMAN:** Okay. Can we then move on to Rabbit Lake? Questions?

Can I start with a general, maybe from Cameco? So, Rabbit Lake started this so many years ago before we had this regulatory framework that we have now. So, how does -- what does it mean in terms of impacting where you have to do catch up, and maybe retrofitting some previous practices? Maybe you can give a little, a quick kind of a thing. What does it mean, in terms of catching up?

**MR. MOONEY:** Liam Mooney for the record. And I think one shiny example, during the previous 5-year

licensed term and we'll continue into the planned licensed period, would be the reclamation activities on-site in the ongoing reclamation activities, concurrent reclamation activities that we now have underway.

Whether it be the covering of the B-Zone waste rock pile or the successful removal of the coffer dam on D-Zone. Now, there's been no shortage of steps taken over the previous 5-year licensed term that have put Rabbit Lake in a much better position going forward and secured. I would suggest a long term operational future of that site.

**THE CHAIRMAN:** So, you think you will be able then to, in their remediation, to catch up and put in place the same kind of quality decommissioning and reclamation that you have in a more modern site?

**MR. MOONEY:** Liam Mooney for the record. And perhaps I'll ask Scott Britton to talk about the preventative maintenance program at Rabbit Lake. But we do -- we do see the protection of the environment, as well as the health and safety of our workers and the public, as a highest priority. And so, taking steps to modernize our affluent improvement, during the current licensing period, was a big step forward in that regard. And, I'll leave it with Scott to give you a bit more in relation to the infrastructure at the facility.

**MR. BRITTON:** Thank you Liam. Over the last five years of the licensing period, why there's been many upgrades to the existing Rabbit Lake facilities, both in the mill and around the auxiliary facilities that support the operation, including the -- our operations for treeing, water that's going to be release from the site. But those are all sustained by vary robust maintenance activities that would, their very skill workforce and that follows very strong work practices that make -- ensure that all of the equipment and facilities that are used for day to day activities, in fact, are being operated effectively and efficiently.

**THE CHAIRMAN:** Staff? Anybody want to talk about that particular item. I know it's generic and it's general, but is there something unique about Rabbit Lake, since it's the oldest?

**MR. LeCLAIR:** It's more to do with the fact, as an older site, it has a lot more history. It has several waste rock piles and pits that have been mined out. So there's several different areas that need to be decommissioned. So what you would expect from a mine that's been operating for an extended period of time and is mined out in several different areas.

**THE CHAIRMAN:** But you're convinced it can be decommissioned and reclaimed properly?



**MR. LeCLAIR:** Yes, yes, because there's several means, engineering designs. In fact, in the SCS submission, there's several examples of activities that can be done to decommission these facilities safely.

**THE CHAIRMAN:** Thank you. Question? Dr. McDill?

**MEMBER McDILL:** Thank you. I believe we've had a discussion on the idea of a permeable reactive barrier before, but it wasn't in the community. So perhaps I could ask Cameco to review that.

**MR. MOONEY:** It's Liam Mooney for the record. And you're correct Commissioner McDill that it was brought up, in relation to the Beaverlodge property previously by SES. I'd ask Barry Esford to provide some context around Cameco's views of the applicability of that technology in the Rabbit Lake circumstances.

**MR. ESFORD:** Barry Esford for the record. Permeable reactive barriers are, or can be an effective means to treat water. That's really -- I see them as one option of treating water. They're typically an in situ method, which can have advantages in certain situations.

**MEMBER McDILL:** For the sake of the community, in situ is Latin, let's at least try and use English.

**MR. ESFORD:** So, I guess just for the

audience then, and what in case you're not familiar with this technology. What it is, is basically installing something in the ground that say, for example, the ground water would pass through and in doing so, as it would flow through that material, it would treat, it would be a treatment method. So that's really what a permeable reactive barrier is. It's a treatment method for ground water. So it can be effective in the right situation. And we would certainly consider this as a technology to treat ground water. Some of the -- one of things with it, it's not a, you know, it's not something you build in the ground and it lasts forever. Similar to any water treatment plant that you would build, it would need maintenance. So would a permeable reactive barrier, that would have to be rehabilitated over time to basically keep that media that's treating your water functioning. So we don't see it as a long-term treatment option, but it is a treatment option.

**MR. PREBBLE:** I think one of the things that would be attractive about its application on the Rabbit Lake site is that there are -- I think it particularly would work well as a way of removing uranium and heavy metals from surface water as well, especially where you've got narrow surface water circumstances. So we were thinking that Rabbit Creek and the Effluent Creek,

for instance, would be two good places to use permeable reactor barrier technology in addition to Cameco's suggestion that it could be applied in terms of reducing contaminants in groundwater as well. And it's relatively low cost and it's a proven technology that's being used a fair bit in the United States.

Dr. Latchman, who has been working with us on this, has unfortunately just passed away, but his company, Eco Technologies Limited and Dr. Latchman, have done a lot of really good work on this. And we filed some material on this during the Beaver Lodge submission that we hope will be helpful to you and other members of the Commission.

**MEMBER McDILL:** Staff?

**MR. LeCLAIR:** Yes, as I had said -- Jean LeClair, for the record.

As I said back in Saskatoon, the primary reactor barrier, these barriers can work quite well, and I have to agree that there are applications where they could be quite useful.

As I mentioned then, I'll mention it again, one of the challenges in applications for surface water, where you're actually intercepting the water from a creek or a stream, is the water's got to go through the barrier, it prevents the movement of fish. And so it has a

potential impact, ecological impact. It's something that needs to be considered.

So if you have a situation where there is no aquatic life that needs to be able to move throughout the -- across from a lake to another lake, it might work out quite well. And so that's one very important limitation on applying it in a surface water application, which is why you usually see it more in a groundwater, where you're actually putting it in the ground and there's no barrier to the movement of any plants, bugs, whatever, aquatic life.

**MEMBER McDILL:** Is there aquatic life in Rabbit Creek that would -- do we know?

Cameco.

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

And I'll ask Kent England to -- a former Rabbit Lake employee to respond to that question.

**MR. ENGLAND:** Kent England, for the record.

There is aquatic life in the creek.

There's not large fish spawning movements or anything like that, but it is -- I'd like to add that that creek is very isolated; there are no roads to do this infrastructure project. To get this material in would -- actually, I don't know how you would do it. And also, solutions we're

searching for the link lakes are long-term.

**MEMBER McDILL:** Thank you.

**THE CHAIRMAN:** Just quickly. Where is this technology being used? Is it used by other industries?

**UNIDENTIFIED SPEAKER:** It's being used by -  
- sorry, Mr. Chair.

It's being used by the uranium industry in the United States.

**MR. MCKEE:** Malcolm McKee, for the record.

We actually have reactive barriers installed at Atomic Energy of Canada Limited facility and Chalk River Laboratories as well, treating groundwater plumes.

**THE CHAIRMAN:** So it's not -- so it's a proven technology, so it's just a question where to apply it. Is that ---?

**MR. MOONEY:** That -- it's Liam Mooney, for the record.

That's exactly the situation. It's a tool and we look at as part of our evaluation of what treatment options we would use in certain circumstances. And when it's suitable, we would look to use it, but the circumstances of the Rabbit Lake operation, whether it be the creek, as suggested, or whether it be some of the waste rock piles, we don't see it being a natural fit for

what our long-term decommissioning objectives are for that site.

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

Question? Ms. Velshi.

**MEMBER VELSHI:** I got a question to Cameco, something for staff.

Is reclamation considered to be decommissioning? Like what's the differentiation? Cameco?

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

We look at decommissioning as being -- is we talk about the preliminary decommissioning plan, the preliminary decommissioning cost estimate, that's the decommissioning large for the site. Reclamation, we look at that more as a concurrent activity that can be carried out that takes inactive areas out of the decommissioning plan and cost estimate over the long-term. So it's either sort of step-wise, but they are related.

**MEMBER VELSHI:** So because it's being done during your operations phase, you don't consider -- I mean, it's not titled decommissioning, but it really is the same kind of activity you would do during a decommissioning phase?

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

record.

Yes, it's carried out with the same long-term objectives in relation to the facilities in question, but it's not for the whole of the facility, as captured by the preliminary decommissioning plan. So it would be -- discreet activities that are described within a preliminary decommissioning plan, perhaps, but it's ongoing concurrent activities that we've been encouraged to undertake.

**MEMBER VELSHI:** So my specific question was on number 10 in CMD 13-H15.20, where the recommendation is a need for Cameco to incorporate into its overall decommissioning objectives a firm commitment to meet Saskatchewan surface water quality objective around its waste rock piles.

I -- if you could please comment on that?

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

Our decommissioning objectives for the facility are consistent across all of our operations that we want to see them safe, secure, and stable.

I'll ask Kirk Lamont to talk about the specifics in relation for the decommissioning for the Rabbit Lake operation and the surface water quality objective question you've raised.

**MR. LAMONT:** Thanks, Liam.

Kirk Lamont, for the record.

The recommendation made by the Saskatchewan Environmental Society, as part of our reclamation work that we do, specific to our waste rock piles, the preliminary decommissioning plan currently only has two waste rock piles staying on surface at the Rabbit Lake facility, that being the B-Zone waste rock pile and another waste rock pile known as West 5.

The B-Zone waste rock pile is currently undergoing reclamation where we've just completed the initial cover and hydro seeding vegetation cover on that waste rock pile. At this point, we feel that this cover will perform effectively to meet water quality objectives to ensure that we have safe clean water. And lessons learned from installation of this cover and other reclamation work going forward will help inform that of the West 5 pile when we determine the timing for reclamation of that pile.

**MEMBER VELSHI:** And I guess the question, though, is should that not be established as an objective as opposed to having done it, saying yes, now we actually do meet this? Should this not be something you set at the outset as where you want to end?

**MR. LAMONT:** Kirk Lamont, for the record.



We utilize site-specific water quality objectives when establishing our reclamation plan and specific reclamation activities. The objective of that would be to base it -- the accepted practice is for deriving these site-specific water quality objectives that are acceptable to the level of risk associated with the reclamation work that we're doing and the specific reclamation activity, the site-specific conditions, toxicity information, that specific area.

So each reclamation activity that we undertake, they're not exactly the same, which requires us to set site-specific limits that are still protective of the environment, but take into account risk informed decisions of those specific activities.

**MEMBER VELSHI:** Staff, do you want to comment on that as to why meeting the province's surface water quality objectives would not be an expectation for reclamation and decommissioning activities?

**MR. MCKEE:** Malcolm McKee.

I'm -- to be honest, I'm a little confused with the wording in the recommendation. A properly designed capped shaped contoured waste rock pile, if the way it's written is talking about surface runoff water, should not be contacting any waste material and the surface runoff water therefore would not be contaminated

water and you wouldn't essentially expect it to meet surface water quality objectives.

Though, there are situations where natural environments don't meet the surface water quality objectives. So for example, iron in Northern Saskatchewan generally doesn't meet it and so on.

So -- but a properly designed cap that's shaped and contoured, you shouldn't have surface runoff material, contact and contaminated material. So I don't see an unreasonable situation for that if we're talking surface runoff.

**THE CHAIRMAN:** Well okay, let me jump in. So when you do -- when somebody does a decommissioning plan, okay, for let's say the old site. Presumably, you have objective as to how you measure, where -- over many, many years, where there is drinking water being drawn.

You do some measure that presumably you always make sure that environment -- the receiving environment will be meeting the drinking water objectives?

**MR. MCKEE:** Malcolm McKee, for the record.

If any situation or scenario where you would be looking at the possible use of something as portable water, then the actual requirement would actually be ensuring that that was safe from a drinking water objective, if it was to identify that that was to be a

potential end use for that water body.

If you were looking at one of the -- with the new groundwater discussion document that was released and it went through review and acceptance, and staff is now working towards a groundwater guidance document on how to manage and treat and assess groundwater for decommissioning and for operations.

The initial step for any operation, whether for any activity you're going to do, would be to identify with the regional environmental authority and the regional authorities, what are potential end uses for, let's say, groundwater in this situation.

Is that groundwater going to be deemed as a potential potable water source, then your criteria would be to meet drinking water standards and potable water sources.

If that groundwater is not identified as being used for that purpose, then it becomes a pathway to the surface water environment. Then your initial target criteria would be surface water quality objectives.

It's important to understand what surface water quality objectives are though. They -- if you are below a surface water quality objective, those numbers are so strict that you can be comforted and ensured that there's no risk to aquatic life.

Exceeding a surface water quality objective does not mean there is risk to aquatic life. So that's when you would go to the next phase. If you can design the facility to meet the surface water quality objectives, you're done.

If you're going to have difficulty with certain of the surface water quality objectives, then you'd have to go into site-specific risk assessments and look at what are the potential risks associated with being whatever slightly over or whatever the predicted parameter, level of exceedance of the surface water quality objective would be.

So it's a staged approach with ---

**THE CHAIRMAN:** Ms. Velshi?

**MEMBER VELSHI:** Maybe I'll get SES to comment on this because I'm a bit confused by -- I'm getting sort of a circulatory argument.

Is it not an objective that you set and then if you can't meet it, then you do a risk assessment and say, can we live with it or not. But should that not be an objective that should be set? But I'll ask you to comment on it.

**MR. PREBBLE:** Thanks Madam Commissioner.

We think that, you know, there's very clear guidelines that the province has put in place on this

matter.

The Saskatchewan guidelines for northern mine decommissioning and reclamation state that Saskatchewan surface water quality objectives are to be met for water running off waste rock piles.

And we therefore think that that should be built into Cameco's planning and should be something that we would encourage CNSC to require of Cameco when they're preparing their decommissioning plan. And that was our suggestion to your Commission.

**MR. MOONEY:** So it's Liam Mooney, again for the record here.

And going back to the discussion from CNSC staff, the water quality objectives that we're talking about, the way the PDP is structured, it speaks to trying to limit the -- to a reasonable extent, in order to comply with the Saskatchewan surface water quality objectives or site-specific water quality objectives at each designated close up objective reference point.

So it speaks to the model that you were talking about, that you would be looking at the SSWQO and then if you're not able to do that then there would be risk assessments.

And ultimately the approval, in relation to those activities, would be subject to the regulatory

review of the CNSC and the province. So the provincial guidelines, in that respect, would inform that discussion.

**MEMBER VELSHI:** Thank you.

**THE CHAIRMAN:** Okay. Other questions?

Do you want to say something about Link -- the Link Lake's future? The intervenor raised it as a big issue. The documentation said it's a challenge, so what's the end game?

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

I'm going to ask Kirk Lamont, Rabbit Lake's Manager of Safety, Health, Environmental Quality to respond to that.

I think that this issue has been closely studied over the previous licensed and efforts continue in that regard, to determine what's the best option to reconcile the future of the Link Lake system, with the decommissioning objectives in the long-term of the Rabbit Lake site being safe, secure and stable.

**MR. LAMONT:** Kirk Lamont, for the record.

The Link Lake system has been under study for some time now to ensure that we develop the most appropriate long-term reclamation plan for that area. In 2010, we undertook a lifecycle value assessment, basically a risk assessment with multiple options on the area to determine the best path forward.

There were many options studied and there were a few options that came up as the potential best; that being natural monitor recovery or a partial excavation of the sediments of the upper Link Lake delta.

In the winter of 2010, we undertook a test excavation in the Link Lake area to determine our ability to potentially excavate sediment in that area. Even in winter conditions, it was a very difficult undertaking, due to the boggy nature of the area.

Based on that and based on updated monitoring information and modelling results, we went back and redid the risk assessment earlier this year, to re-establish a more informed path forward, based on those options and based on the new information.

That information is currently under study right now and we are conducting some updated modelling to help substantiate and some of the results of that risk assessment.

We're hoping to have results of that modelling later this year so that we can continue forward on a path of reclamation for that area that's suitable for the long-term of the Link Lake system.

**THE CHAIRMAN:** So presumably we'll get an update, if there's annual reports coming.

Okay, anybody, any other -- Dr. Barriault?

**MEMBER BARRIAULT:** Thank you, Mr. Chairman.

With regards to the B-Zone pond, if I understand correctly from the intervenor, is that the levels of nickel and arsenic are still significantly higher than acceptable level for surface water.

And the intention is to flood it and then dump it into Collins Bay by removing the pilings; is that correct or will this have to be at the level of a -- of surface water quality before that's allowed to happen?

I think Cameco, if I may. Yes.

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

And I'll ask Kirk Lamont to expand on the response in that regard.

But overall we continue to see concentrations to decline in the B-Zone pit and we have plans with respect to the work but all of that will depend on the regulatory review and acceptance of what we would propose to do in relation to that.

**MEMBER BARRIAULT:** Okay. So it's not an automatic plan, you're going to test it before you release it, it's what I'm hearing?

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

We've been closely monitoring the water



quality of that pond since it was re-flooded and we would have the necessary regulatory approvals to proceed with any reclamation activities in relation to it.

**MEMBER BARRIAULT:** Thank you. Thanks, Mr. Chairman.

**THE CHAIRMAN:** Okay. Well, thank you.  
You have the last word.

**MR. PREBBLE:** We want to thank you and all members of the Commission for your questions and thank you for the opportunity to present.

I guess I just conclude by saying, and I think you sense this very strongly, that it's not our concerns about the local environment that are our reason for opposing the relicensing of these mines; it's our concerns about nuclear reactor safety and the link between uranium exports and nuclear weapons proliferation that are our reason.

And we very much appreciate the opportunity to appear before you. Thank you so much.

**THE CHAIRMAN:** Thank you.

We would like to move on to the next presentation by the Saskatchewan Mining Association as outlined in CMD 13-H13.7, 14.6 and 15.5.

And I understand that Ms. Schwann will make the presentation.

13-H13.7/ 13-H14.6 / 13-H15.5

Oral presentation by

The Saskatchewan Mining Association

**MS. SCHWANN:** Good afternoon, Mr.

President, Commission Members, Elders, community leaders and other representatives.

My name is Pam Schwann. I'm the Executive Director of the Saskatchewan Mining Association, and I am here to speak in support of Cameco Corporation's application for licence renewal of the McArthur River, Key Lake and Rabbit Lake operations for a 10-year period.

The SMA is an industry-funded association. Our mission statement is to represent and support a safe, responsible and growing Saskatchewan mining industry. We have over 40 members in our organization, and our organization is restricted to producers and exploration companies.

Looking at uranium production in Saskatchewan, Saskatchewan is a world leader in uranium production with a proven record of safe and environmentally responsible development.

This picture is of Rabbit Lake operation, the world's longest running uranium mine.

In 2012, uranium mining in Saskatchewan provided 100 percent of Canada's primary uranium production, just shy of 23 million pounds, and this represented about 15.4 percent of world production in 2012.

Looking at public support for mining in Saskatchewan, there's a strong level of support for mining and uranium mining in Saskatchewan, including among residents of Northern Saskatchewan. This is derived from polling results. This support reflects public confidence in a well-managed regulated industry.

In 2012, the SMA carried out an independent public awareness survey. Results included 84 percent. I think that mining industry is very important to the Province. Ninety (90) percent are supportive of the Province's mining industry and 84 percent have a positive perception of mining as a career.

A separate poll that's carried out by Cameco and Areva done in May 2013 - that's the most recent results that I had - indicate that 80 percent of the public support uranium mining industry specifically.

I'd like to speak to the key aspects of licensing, including conventional safety, radiation safety and environmental performance of Cameco over the past five years of their licence period.

Looking at conventional health and safety over the last five years, WCB statistics for underground hard rock mining in Saskatchewan has a lower lost time injury rate than the all-industry category in Saskatchewan, 1.45 percent versus the all-industry classification of 2.94.

CNSC data itself in the CMDs indicated that the 14 safety and control areas were rated as satisfactory for all three of Cameco's operations with improving trends for McArthur River and Rabbit Lake. This is a mixture of both the environment, conventional safety and radiation safety.

But I would also like to speak specifically about some of the more conventional safety aspects that the Cameco sites have had over the past few years. Looking at national awards, including the John T. Ryan Safety Performance Award, McArthur River Mine was awarded the national CIM John T. Ryan Award for the best safety performance in a metal mine category in Canada in 2008 and in 2011, they were the regional trophy winner in that category.

With respect to the Saskatchewan mining community, we see that Cameco is a safety leader within our mining companies. They are a regular contributor to the SMA Safety Committee, and I would note that Kevin

Huber is here today, or he was. I don't know if he skipped out for the presentation. He's a member of our SMA Safety Committee that meets on a monthly basis. They are very committed participants to providing the Saskatchewan Mining Association - it's developed safety training courses for new supervisors.

And, Dr. Binder, you had asked about whether the associations have a role in providing specific training, and that's one of the things that we do with the Saskatchewan Mining Association.

I'd also note that Cameco led the review of the reporting of safety statistics within our Association to ensure the accuracy and consistency of reporting amongst member companies.

They're also active members of our Emergency Response Mine Rescue Subcommittee that organizes our competition every year and they have teams that are actively training for, participating and, to the chagrin of some of our other members, winning these annual competitions.

In 2013, the McArthur River Mine was the winner of the overall underground miner of the Saskatchewan Mining Association Emergency Response Mine Rescue Competition.

Looking at the radiation safety

performance, this information on the charts is actually from the CMD documents from the CNSC staff that was provided. So that was the sourcing for these documents.

Cameco has a long track record of being a safe and qualified operator and has demonstrated its leadership in radiation health and safety. Cameco ensures its personnel are competent and qualified to safely perform the duties. This includes radiation protection.

This slide illustrates that the average radiation dose received over the past five-year licence period, as compared to the regulatory annual limits.

And as noted in a CMD from the CNSC staff, the worker radiation doses received were safe and consistently below regulatory limits at all three sites.

Briefly, looking at environmental performance, I would again like to refer to the industry and the applicant's proven record in terms of environmental performance.

In terms of treated effluent releases or water releases to the environment over the licensee's five-year licence period, effluent discharges have been substantially below regulatory limits, and that's what's shown in this chart here. Again, this data was taken from the CMD documents by the CNSC staff.

As also noted in those documents, there

have been significant reductions in selenium, molybdenum, uranium and radon as noted in those documents that are cited.

Cameco are also leaders in training, building human resource capacity. The uranium mining industry in Saskatchewan are global leaders in corporate responsibility. It's a longstanding way of doing business for Cameco, as well as Areva. Both companies have taken a leadership position in working with the government and educational partners to create a trained labour pool in the north from which the mines and other businesses can recruit skilled workers.

This partnership approach has helped deliver training in spite of the challenges of serving a relatively small population over a very large geographic area.

Some of the examples of the training program are illustrated in this slide and include: the Multi-Party Training Plan, which has been operational since 1993; Northern Career Quest, which was granted \$9 million in funding to train another 800 participants in high demand occupations in the northern mining industry in 2012; the Northern Apprenticeship Commission and a number of initiatives for on-the-job training and development, summer student and coop employment and, as well, the

commitment to encouraging students to stay in school and look towards post-secondary education through the development of their scholarship programs.

In 2012, over \$200,000 in post-secondary scholarships were provided to 47 northern students and \$36,000 or slightly over that was awarded to 75 students in Grade 7 to 12 from the Athabasca region to reward their performance in school and encourage them to stay in school.

In terms of leaders in employment and building human resource capacity, there's over 4,000 employees in the northern mine sites. In 2012, of this, 47 percent, or just over 1,900, were residents of Saskatchewan's north and they earned a payroll of just \$83.6 million.

Almost 70 percent of the northerners continue living in the north while working at the mine operations.

The pie chart there, which might be a little bit difficult to show, but it shows the various skills and the job ranges from skilled to unskilled, with progression over the years of workers to more skilled occupations.

Forty-two (42) percent of direct employees at mine sites are in higher-skilled jobs, including



trades. That's 158 northerners in the trades, supervisory and technical and professional areas.

So these aren't all entry-level positions. Certainly they're moving up into the higher-skilled and more professional categories. And I think, as Sean had -- really had alluded to, that is the goal for future training as well, is to see that progression continue.

Also, Cameco is a leader in business development. Over the 40-year history of uranium mining in Northern Saskatchewan, the uranium industry has worked with communities to encourage northern businesses to supply goods and services. That is to build business capacity in Northern Saskatchewan for the mines, but they can also be transferred outside of the mining-specific resource sector.

I'd like to acknowledge that a lot of these businesses that started off in Northern Saskatchewan are now servicing the southern mining industry, including in the potash sectors.

Demonstrated results include a record \$624 million of goods and services that were purchased from northern-owned businesses in 2012.

I think I have to repeat that again. That's \$624 million of goods and services that have gone into northern-owned businesses to help with the economy of

the communities and the north itself.

This represents 40 percent of the northern mining industry's total expenditures on goods and services, so I think they're demonstrating an effort to make sure they are developing and working in partnership with northern businesses for that success.

Over \$5 billion has been paid in cumulative total on northern wages and goods and services since 1991.

It's also significant that a number of businesses that have been nurtured and incubated and developed are in the top 100 companies in Saskatchewan, not the least of which is Kitsaki Management, which is the economic development arm of the Lac La Ronge Indian Band, RobWel Constructors NRT, and Athabasca Basin Development Limited Partnership.

Cameco is also a leader in community involvement. It had over 100 visits with leaders in communities as well as mine tours in the past year, again promote education, stay in school programming. They have offices in a number of northern communities in Northern Saskatchewan for recruiting and communication.

They regularly host meetings of groups such as the Environmental Quality Committee and the Athabasca Working Groups.

They support cash payments and fuel

supplies to trappers and family members who are impacted by mining activities. And we've heard already today about the collaboration agreements with the English River First Nations and Pinehouse Métis local from the leadership in those communities.

My concluding remarks is that Cameco has demonstrated, in my opinion, that it is qualified to operate facilities and has taken appropriate steps to mitigate risks. Cameco has the safety and environmental systems in place to effectively protect people and the environment.

They have a proven track record and established management system and effective compliance programs in place.

They are committed to continuing to operate in the Rabbit Lake, Key Lake and McArthur River operations in a manner that provides them the social licence to operate.

Saskatchewan Mining Association supports Cameco's application for a 10-year licence for these three long-standing facilities.

Thank you.

**THE CHAIRMAN:** Thank you.

Open for questions. Mr. Tolgyesi.

**MEMBER TOLGYESI:** Mrs. Schwann, how many

members do you have?

**MS. SCHWANN:** We have about 40 members within our association.

**MEMBER TOLGYESI:** Is those mining contractors are members also?

**MS. SCHWANN:** Our membership by-laws are that they have to actually be either mining companies that are actively mining, companies that have exploration properties and are working exploration properties in Saskatchewan, and we just, in our by-laws, had an amendment last year that allowed for underground mining contractors to become members.

So it's a fairly narrow scope of who can be a member within the Saskatchewan Mining Association.

**MEMBER TOLGYESI:** I have two more.

What's the lost time accident frequency in this year? Because we didn't have that in our documents.

The lost time accident occurrence and severity, Cameco versus the mining sector.

**MS. SCHWANN:** In terms of what I have for information to date on the lost time frequency rate from January until August, the frequency rate is 0.13, severity rate of 5.89 for all of our companies.

And the others are broken down by site, but on my documents here, I have that Cameco right now has no

lost time frequency -- or a rating of zero for lost time frequency and severity, so it's better than our average, which is, again, compared to other industries, very low already.

**MEMBER TOLGYESI:** And ---

**MS. SCHWANN:** I should just mention that we are moving to more of an OSHA system, looking at a DART system, Days Away, Restricted and Transferred, so looking at modified work injuries as well as lost time. So that increases the numbers, but it recognizes that people are maybe away from their primary job and doing other duties.

**MEMBER TOLGYESI:** And my last one is how and to what extent Cameco is involved in the Saskatchewan mining accident prevention, what they do?

**MS. SCHWANN:** Accident prevention?

**MEMBER TOLGYESI:** Yeah.

**MS. SCHWANN:** I would think most of that work is done through our safety committee. I mentioned they meet monthly.

A lot of that is about sharing best practices, sharing incidents that happen at site and how maybe those could be prevented at other sites.

Our safety committee developed a couple of courses. One are the Chief Mine Inspector for the province recognized a number of years ago that a lot of

the incidents related to safety were because you had supervisors coming in, some that were maybe inexperienced, and they didn't have the right supervisory skills.

So our safety committee developed a course that's called "Introduction to industrial safety supervisors" to help them make sure they were familiar with the regulatory requirements, make sure they knew how to document and make sure they know how to communicate with the people that they were supervising, you know, so they became more effective communicators.

We're just starting Phase 2, which is a bit more detailed look at those. And Cameco is involved both in developing those and also in participating and taking those courses.

We've had over 800 front line supervisors from the Saskatchewan Mining Association go through that Phase 1 training course. And that's on top of what they do. It's meant to complement, not replace, what they do at their sites.

**MEMBER TOLGYESI:** You don't play any role in site restorations up in the north. We were talking about, you know, legacy sites where -- that should be cleaned from -- or the mining or exploration camps.

Do you have anything what -- where you are involved?

**MS. SCHWANN:** No, the Saskatchewan Mining Association is not involved in that at all.

**THE CHAIRMAN:** Dr. McEwan.

**MEMBER McEWAN:** In your slide 4, you note that 80 percent of the public support the uranium mining industry. And we actually heard this in the Cameco presentation last night.

Who conducted that survey? Was there rigour around the quality of the questions? What are the margins of error, and how broadly was the population in the north sampled?

**MS. SCHWANN:** Vast Surveys conducts that survey. I know that. They also did our survey.

And I know that, over time, they've evolved a lot of how they carry out their questionnaire because not everybody uses land lines. That's not very common any more, so they've developed some other techniques.

But in terms of the process, if it's -- I'd prefer to defer to Cameco for that because I just took that number from ---

**MEMBER McEWAN:** From Cameco.

**MS. SCHWANN:** --- from that. Yeah.

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

And we've been doing this annual surveying for some time now. The numbers that were shared with you,

Pam shared you, the Saskatchewan -- across Saskatchewan. Sean Willy shared with you last night the statistics -- support that we see in Northern Saskatchewan.

And particularly telling in that regard, there's an over-sampling that takes place in Northern Saskatchewan given our operations in the north and our interests and what our -- the public support looks like in that particular area.

**MEMBER McEWAN:** How complex is the survey? Is it one or two questions or are you asking a series of cascading questions around the impact?

**MR. MOONEY:** Liam Mooney, for the record. I'm not familiar with the actual contents of the survey. We can get that information for you, if you'd like.

**MEMBER McEWAN:** And what you're saying effectively is that you're totally hands off from the survey as well?

**MR. MOONEY:** That's correct. A third party expert in public polling does the work for us and we take the results as they give them to us.

**THE CHAIRMAN:** So are they posted, the results posted? And if have them, if you've been doing it for many years, you probably have a pretty good trend?

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



The results are not posted at this point in time.

**THE CHAIRMAN:** Why not?

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

I'm not sure what the underpinning there is. I think that I can it back and discuss that with our communications and our corporate responsibility group to see what the band width is there.

**THE CHAIRMAN:** Okay. Thank you.

**MS. SCHWANN:** I would note that our survey is available on our web site.

**THE CHAIRMAN:** So that's your survey, right? But can we get from your survey the northern feeling about uranium mining?

**MS. SCHWANN:** You would get the northern perspective on mining. It didn't break out, potash mining versus uranium, but I think people in the north would automatically reflect the feeling of mining -- of uranium mining, sorry.

**THE CHAIRMAN:** The same kind of numbers or...

**MS. SCHWANN:** Ours were a little bit, I think, just a little bit higher but very strong support for the industry. I can certainly share that link again.

**THE CHAIRMAN:** Thank you. Questions?

First of all, I really like your slide 7

because it's the first time I can actually get to see how the difference between the various mines and their control, air fluent control. So my question is these are the mine and minerals kind of metal that are being monitored. Could you construct a table like this for other mines? So that the potash community and iron and all those, by the way, potash has a lot of radioactive stuff in the tailing. I would like to know if they actually keep track of that.

**MS. SCHWANN:** I likely could. I don't know, is Wes Kotyk still on the line? No.

**THE CHAIRMAN:** Anybody know by any chance, staff would you know about that whether the other industries keep that close a monitoring? Is it only Environment Canada in one of your tables, you say that Environment Canada monitors performance?

**MR. LeCLAIR:** I can certainly -- I believe Malcolm McKee can talk about the requirements from a federal perspective for metal mining effluent regulations.

**MR. MCKEE:** Malcolm McKee. I'm actually participating in the review of the metal mining effluent regulations as they stand right now. Right now the metal mining effluent regulations only apply to base metal mines. The last revision back in 2004 they added gold mines because they weren't in it before.

This round they're looking for inclusion of diamond mines and possibly -- and coal mines are under for consideration within the -- and recent reviews -- well, ever since the metal mining effluent regulations came in in 2000 -- the latest version in 2004, uranium mines have been the best performing with respect to compliance on actual analytical content concentrations and best performing on the toxicity testing and one of the interesting discussions going on is looking at expanding the parameter list to be included for effluent characterization and those are all parameters that are already covered under all of our -- reported in our annual reports by the facilities.

So one of the things they are looking at is across all types of mining sectors, what kind of performance and limits may be expected in order to ensure appropriate control it all.

**THE CHAIRMAN:** Go ahead.

**MS. SCHWANN:** So there is a possibility of our coal mines being included in the metal mining effluent regulations then potentially diamond. Potash is not included in that review because they don't actually release water to the environment. They dispose of it down a hole into deep saline formations.

**THE CHAIRMAN:** Okay. Thank you for that.

My last question and I'll let somebody else. Collaborative agreements that Cameco has been signing with some of those communities, is that a practice as being also conducted by other industries? So for example, is the potash industry also entered into collaborative agreements?

**MS. SCHWANN:** No, this is more ground breaking, I think. Cameco and Areva are leading a new generation of agreements. Some of the potash companies do have agreements with different tribal councils, like PotashCorp has an agreement with Saskatoon Tribal Council but it's not anything that sets out these levels.

It really talks about how they're going to engage and that they will, you know, make best efforts, very much like the conditions in the surface lease agreements that already exist in northern Saskatchewan. They don't have a comparable instrument in southern Saskatchewan because it's not Crown land, that's really the difference between the potash section and coal sectors versus the uranium and gold sectors in the north. The north is Crown land and the province is able to use instruments like surface lease agreements and that's not possible on the southern mines.

**THE CHAIRMAN:** Thank you. Anybody else?  
Thank you, thank you very much.

The next presentation is from Mrs. Paul, as outlined in CMD13-H13.5, 14.4 and 15.4.

**13-H13.5 / 13-H14.4 / 13-H15.4**

**Oral presentation by by**

**Candyce Paul**

**MS. PAUL:** My name is Candyce Paul. I'm from English River First Nation. My children are band members. I've lived in the north for more than half of my life.

I object to the presence of this body. I object to the theory that there is no harm being done to our people. I object to a lot of the things that I've heard today.

One thing I'd like to say is when there's written submissions the public needs to hear them before they're refuted because the public has the right to know.

This industry hasn't been very open with the public and when they do come to our communities there's often times that they can't answer our questions. I don't know enough.

Our concerns are met with words like, no significant risk. I'm sorry, that mine overflow in 2003, McArthur. I'm correct, it was McArthur? You cannot

guarantee me or the people downstream from there that that is not causing harm to our people. CNSC put out in their documents here that radiation does not cause an increase in cancer and yet the entire day has been spent talking about radiation safety. Heavy metal safety.

Our people are getting sick. We asked for a baseline health study long ago. The industry knew what radiation could do prior to even opening any of these mines in this section.

You knew it 20 years ago, you knew it 30 years ago. You did nothing. You did not protect our people. So now you have a doctor come up here and say that our cancer rates are the same as the rest of the province; they're comparable with the rest of the province. Well, I'm sorry, the farmers are dying from pesticide use.

Our people were not suffering from cancers to the extent and to the degree that they are suffering now. One in fifteen people in our community have cancer. This is not a laughing matter, this is not something that we should not be concerned about.

And your doctor comes up here and says we need social and mental well-being studies. Well, maybe if we weren't worrying so damn much about the contamination of our lands, our waters, our air, maybe we'd feel a whole

lot more well.

This is the feeling of the people of the North. We are not impressed with Cameco and their Collaboration Agreements. I've got some things to address here as a member of English River. We were not consulted.

Most of the people in English River never heard about the Collaboration Agreement until a week before it was signed. And there was a wake in our community when it was signed. That goes against our culture.

But they are telling our governance, our leaders, that's not the way you do business. You've got to get into the business mode. Corporate governance. We don't need corporate governance. We need leadership. We need life.

We are no longer naive. We know that radiation, even at low levels, because we can access the studies as well as you can. And we're not buying your propaganda.

Those things can cause damage to the DNA at a cellular level and it will affect us eventually. So don't come around here and tell us -- have an expert come in here and tell us, oh, we need well-being studies.

No wonder our young people are dying as well. They don't feel well in this world where our values

are undermined and our culture is -- we've got to worry about whether we eat the foods that we've always eaten that were the best foods in the world.

Our people, the elders, my children's grandfather, lived at Key Lake before it was a mine. It is their inheritance, and it is their inheritance that I am protecting.

I'm also very disgusted that what is being taken out of the ground here is being used in a way that is going to affect people in other places in a very negative way. That is a responsibility. People said they're stewards of the land. Well, that doesn't mean you rip it up and let somebody else decide how contaminated to make it. That's unacceptable.

You are in Dene and Cree territory here. You are in Métis territory. We are the ones that should be setting the limits. Not for the sake of profits. I hear a lot about Cameco and resources revenue sharing.

I was listening to a radio program Sunday night on CBC called "180". Anne McLellan, a board member of Cameco, she said:

"We need a new process by which we ensure for our First Nations..."

For God's sakes we do not belong to you.

"...that economic benefits are shared



fairly." (As read)

How the hell can economic benefits be shared fairly if most of the profits are leaving this province, the royalty rates are this much compared to them. They hide their money in tax havens in other countries. It's never going to be shared fairly.

But she also said that the social and environmental risks are shared and borne fairly. Excuse me, we live here. How are you, or you, or you, going to bear those fairly?

You won't. You won't be here as our lives are affected. All the cures in the world can't make up for the prevention that could have made this different.

I want answers to some of our questions as we submit them, in the future and now. Can you guarantee me that those mine spills that happen on a regular basis and that those shadowy limits are acceptable enough that they're not going to be the next big mistake that you made?

I don't accept an industry that thinks we are expendable. You are dealing with some shady people here. The corruption that this money has brought in. False claims that they are president of a Métis local that doesn't exist, that has never been registered with the Métis Nation of Saskatchewan. That would be Pinehouse and

I will submit this if you would allow me, along with the statement of claim that they mentioned this morning, the Kineepik Metis Local.

I can also address some of your questions about your last speaker's survey because I participated in it. And when I asked who commissioned it, she said Csmeco. I said, yes, I'll take part in it. And she said, oh good, there's hardly any Northerners taking part. Northerners don't like to answer survey questions. So your answer is very few Northerners actually participated.

We also did a poll and ours are documented with the questions that you answered, and I will put it to you as well. Most of the people do not agree. Most of the people of Saskatchewan do not agree that uranium mining should proceed without proper -- tailings being looked after in a proper way that will assure the people of Saskatchewan that there is going to always be a guarantee that we are safe from harm.

Their claims are based on falsehoods. You will meet more and more people who do not want uranium mining in the north. We want a different economy. We want one that's more in line with our values.

That we will not have to worry it's going to make us sick in the future. So I don't ever have to hear of young women being concerned whether their babies

are going to be affected. With all of the changes that this government has been making to the environmental assessments and environmental protections, I am not assured. I do not feel safe in your hands. And neither do a lot of other people.

Our future generations need us to stand up for them because decisions are being made that are going to affect them in the future. I object to uranium being mined because of its end products. And the threat that those end products are going to end up here in our territory being offered as an economic venture.

Ten thousand years? How about 4.7 billion years. And I know that the studies are showing that it's not going to work. Because you can't guarantee it. Don't even come to the table yet. Don't even think about coming to the table yet.

This industry was a Pandora's box all right, that should never have been opened because our people knew that. And our cultures, they said leave that black death rock alone. You guys didn't listen. And that's what's going on here. That's why these people are coming in and saying, "Okay. We'll sign these agreements because you guys don't listen anyways so we might as well get something out of it." Like beggars.

That's going to help our wellbeing? You

should have been at that signing in English River that day and seen the faces of the people that know. Because we have our own knowledge, we have our own science and it goes far beyond the what ifs because everything that it has been has come to be.

They said a demon would come out from the ground and it would start killing everything. And it has.

Look what it is doing. It is destroying our communities because we are not healthy and vile communities. It's tearing our communities apart.

They get behind closed doors. They don't even want to talk about the impacts. They won't let them talk about the impacts. Those were the questions that our people were asking. "Hey, wait a minute. I don't want to know about the benefits, I want to know about the impacts." "No, no. We know there's impacts." That's all they said.

Hey, we're all human. We all deserve to know. We all deserve the right to decide. Not based on business but on humanity.

**THE CHAIRMAN:** Okay. Can you finish and allow us to engage in some discussion here?

**MS. PAUL:** I object to any relicensing and I want a real health study done to prove once and for all internationally around the world that this is safe for all

humanity now and in the future.

**THE CHAIRMAN:** Thank you.

Why don't we open up for discussion now and questions? Who wants to go first?

Dr. McEwan.

**MEMBER MCEWAN:** So in your presentation you talk about cancer rates in your communities.

**MS. PAUL:** Yes.

**MEMBER MCEWAN:** So you give a figure of 1 in 15. Is ---

**MS. PAUL:** It could be -- it could be even ---

**MEMBER MCEWAN:** Is that across all ages or is it mainly in older people?

**MS. PAUL:** Well how old is 40? No, it's not mainly older people. It's getting younger and younger and that's the trend.

**MEMBER MCEWAN:** So maybe I could ask staff, what would an incidence and prevalence rate be for cancer in a community and the age spectrum and what will be the primary causes of cancers in a community with those numbers?

**MR. JAMMAL:** Ramzi Jammal, for the record. I'll ask Dr. Sandor Demeter to provide the answer.

**DR. DEMETER:** Dr. Demeter, for the record.

I don't have the breakdown by age. I got the slides from Dr. Irvine this morning which showed a comparison of Northern Saskatchewan and Southern Saskatchewan cancer rates showing that, with the exception of lung cancer, cancer rates were on par with Southern Saskatchewan, with prostate, colorectal and breast being slightly less.

The other reality and I'm saying this with, you know, a certain amount of humility because I don't live and walk in the shoes of Northern Saskatchewan so I'm presenting information and people can make their own judgments about it.

The life -- the lifespan of Northerners and Southerners are still quite a gap. And there's a lot of reasons -- health reasons for that gap where northern people in Saskatchewan don't live as long as people in Southern Saskatchewan. And that will reduce the observation of the number of people who have cancer because if cancer is related to age and you have less older people you'll have less cancer.

So the age standardized rates that Dr. Irvine presented showed an overall, with the exception of lung cancer, similar cancer rates to Southern Saskatchewan with the exception of lung cancer.

Saying that, I think it's important that we all understand that populations are aging and the number of elderly as a proportion of the population as a whole is growing for all populations, perhaps slightly less so for northern populations because they have a younger population. So the observation will be that people -- more people seem to have cancer if there are more older people because they have a higher risk of getting cancer.

So I can only speak to the data which is based on the collection of people who have cancers that are collected by cancer registries and are reported as such. So based on the health status report which Dr. Irvine presented this morning, there is no convincing evidence of an increased cancer rate in Northern Saskatchewan compared to Southern Saskatchewan.

And I -- and unfortunately I don't have the age bracketed cancers. I just have the age standardized.

**THE CHAIRMAN:** Please, before you do this, just an additional point. You obviously don't believe or accept that the medical evidence that Dr. Irvine put. So where do you get your data from? So you came up from 1 in 15. Where is that coming from?

**MS. PAUL:** Knowledge of my community.

**THE CHAIRMAN:** But 1 in 15 ---

**MS. PAUL:** And communities - yeah. There's

about 800 people---

**THE CHAIRMAN:** You had to go ---

**MS. PAUL:** --- in our community and over 50 of them have cancer. And not all of them are old people.

My point is, according to our old people, nobody used to die of cancer. It was very rare. And this is endemic throughout the north, it was very rare.

It's not -- it's because there was never a baseline health study that you can't make a comparison. You can't compare us with the south.

**THE CHAIRMAN:** And you -- so ---

**MS. PAUL:** And ---

**THE CHAIRMAN:** --- all I'm trying to understand is you -- so you did your count on your community.

**MS. PAUL:** Yeah.

**THE CHAIRMAN:** Did you do a count in other communities? I'm just trying to understand.

**MS. PAUL:** I haven't done an accurate count on other communities but it's very similar. We were working on something on building a funeral home because geez, everybody's dying. So we did kind of do a basic survey to find out what kind of business that would be.

**THE CHAIRMAN:** Okay. Questions?

Any other questions? Question?



Let me ask you, are you against any mining or just particular uranium? So potash, gold, diamond.

**MS. PAUL:** I'm against mining for things that aren't absolutely necessary. I don't think we need diamonds. I don't think we really need gold since the vaults are full of them and it's sitting there doing nothing.

It's irrelevant. Uranium is not something we absolutely have to have. We never needed it before you found it and discovered what it could do. And there are other sources for power generation that don't have the problems at the end of the line and the front of the line that this does.

Right now, I'm very concerned we're at both ends of that line. As you know, Nuclear Waste Management Organization is also soliciting our communities to store the nuclear waste, the high level nuclear waste, without actually having more than experimental plan. That isn't acceptable, either.

**THE CHAIRMAN:** So let me ask you the final question. Your Chief was here. We heard also from Pinehouse, so obviously the community is divided, so ---

**MS. PAUL:** She actually can't sit as Chief right now. She shouldn't even have been here because she's in 30 days prior to election.

And there's a lot of contention in the communities regarding the signing of that agreement because there wasn't a consultation process.

Not once -- and I asked. I personally asked Chief and Councillors to inform me when there's stuff, meetings going on regarding anything nuclear, anything uranium. They never once informed me.

So there was no effort made to make sure that most of the people in our communities are well informed ahead of time and can be at a meeting.

We tried to say that at the signing and to say we needed more time as a community to discuss it, but there was a rush to get it signed. There must have been a really big rush for them to break the protocols of our people.

**THE CHAIRMAN:** Okay. Thank you. Thank you for this presentation.

Oh, sorry. I skipped somebody?

Mr. Tolgyesi.

**MEMBER TOLGYESI:** Thank you.

In your -- in the presentation of Mrs. Paul, there is a second-last paragraph which is talking about practice of releasing effluent into our waterways through dispersal pipes.

**MS. PAUL:** Right.

**MEMBER TOLGYESI:** Could you comment on that and then maybe we'll ask after Cameco to comment?

**MS. PAUL:** At a meeting in Pinehouse, there was discussion of how they were going to deal with effluent in terms of putting it through a dispersal pipe in the lake so that any of the contamination would be dispersed more evenly.

They said at that point that the contamination would be less than severe. To me, that means it's contaminated.

I don't think any of our lakes where animals feed, where fish are living, where ducks are living, where any of our food supply could get water from or food from should be facing less than severe contamination. That's not acceptable.

And if that's the standard, that's -- we're not going to accept that.

**MEMBER TOLGYESI:** Was it at Key Lake, what you're talking about?

**MS. PAUL:** No, that was on one of the newer mines that they're planning to open up.

**MEMBER TOLGYESI:** Okay.

**MS. PAUL:** I'm not exactly sure which lake they were planning to use as an effluent dispersal.

**MEMBER TOLGYESI:** Could you comment on

that?

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

And I believe we're talking about the Cigar Lake project. And in that regard, there was a Cigar Lake Water Management Project that was the subject of an Environmental Impact Assessment that included construction of a diffuser.

And the conclusion in relation to that environmental assessment that was carried out both provincially and federally was that there was not going to be significant adverse environmental impacts associated with that activity.

**THE CHAIRMAN:** Okay. We have to -- we promised that we will let you out of here at 6:30. It is 6:30, so thank you for your presentation.

And we will take an hour, and then we'll reconvene at 7:30.

Thank you.

--- Upon recessing at 6:28 p.m./

L'audience est suspendue à 18h28

--- Upon resuming at 7:35 p.m./

L'audience est reprise à 19h35

**THE CHAIRMAN:** I'd like to proceed to the next presentation, which is by the Northern Saskatchewan Environmental Quality Committee as outlined in CMD 13-H13.22, 14.20 and 15.19.

There are three specific submissions, each -- with different facility, and I understand that Mr. Wolverine will make the presentation.

Please proceed.

**13-H13.22 / 13-14.20 / 13-15.19**

**Oral presentation by the  
Northern Saskatchewan Environmental  
Quality Committee**

**MR. WOLVERINE:** Thank you, and good evening to everyone. I'll speak on behalf of Key Lake for now.

As you are aware, the Northern Saskatchewan Environment or -- yeah, Environment Quality Committee is a Saskatchewan provincial government advisory committee representing some 34 impacted communities in Northern Saskatchewan.

These communities and their representatives have given northerners an effective community voice in the uranium industry for the last 17 years.

The representatives come from

municipalities and First Nations alike, and these individuals include people from First Nations, Dene and Cree, Métis and non-Aboriginal heritage.

Over the years, we have followed the development of the Key Lake Project closely, have visited the site numerous times and are quite familiar with specific projects and activities that occur on site.

Our activities are known to many stakeholders through correspondence, direct reports to communities, our published annual report and reliable media coverage in Northern Saskatchewan's leading business magazine, "Opportunity North".

As we identified in previous interventions, the site has been in operation for a very long time and the purpose of the operation has changed from a mining and milling operation to a milling only operation.

This has obviously caused many changes at the site, and many of the facilities that were once required have either changed in purpose or are no longer used. This includes the aboveground tailings management facility that we were told at one time was the best option for tailings management.

Time has told a different story. This huge facility now lays mostly vacant, excepting a small section that is now used as a contaminated waste storage area.

For northerners to maintain confidence in Cameco's ability to operate responsibly in traditional territories, this facility must be dealt with. The time has come for decommissioning of this facility to be taken seriously by both the operator and the regulators.

Decommissioning of this site will provide an opportunity for Cameco to gain respect across the north as a responsible operator.

During a site tour this summer, a commitment was made to develop a decommissioning plan for the aboveground tailings management facility. As such, we encourage the Commission, the regulatory staff and Cameco to live up to its commitment and develop a plan on how decommissioning activities can occur and that this plan be developed in a timely manner and shared with the northern communities.

The EQC have let the opportunity to -- have had the opportunity to participate in tailings workshop focused on Key Lake site. As part of those workshops, we gain a better understanding of the effects of the sand sloughing that occurs at the Deilmann Tailings Management Facility, or DTMF.

We also gained a better understanding of why Cameco must treat such large volumes of water at the site that must eventually be discharged to the

environment.

From our understanding gained through our site tour this summer that the stabilization of the slope of the DTMF is almost complete, this will ensure the DTMF can remain functional and the upgrade to the facility can increase the total life of the DTMF.

We are pleased to see the progress made in this area and the commitment Cameco has shown to ensuring their current tailings management facility is properly managed and more effectively used.

Finally, we need to ensure the operations of the site will not affect the environment for the use of future generations. Because of the increased operating life of this facility and the advances that have been made in science, some of the original predictions that were made for this site may no longer be accurate.

While the current mill revitalization project is obviously aimed at making the mill more efficient at producing uranium, we would like the regulators to ensure that this project also addresses the need for updated and upgrading environmental practices, processes that will ensure the reduction of chemicals of concern in waste streams, and will reduce and eliminate any long-term impact this operation will have on the environment.



We would like to take this opportunity to acknowledge the efforts of CNSC staff and the expertise they possess in regulating uranium operation in this jurisdiction.

In closing, we do support the relicensing of this facility. We encourage the continued diligence of both provincial and federal regulators in ensuring the site operations within the terms and conditions of its licence.

The McArthur: As in each year since it began operating, the EQC had the opportunity to visit the McArthur site this summer.

During the visit, Cameco personnel and the project officer from the Canadian Nuclear Safety Commission explained the most recent CNSC rating for the site, some of the areas of concern for the operation, as well as future plans for the site.

We appreciate these opportunities to meet with both the site personnel, as well as members of the regulatory agencies, and see for ourselves what is actually happening at the sites.

There are three areas that we would like to focus on for this intervention. Firstly, while we were visiting the site, the issue of waste rock management was raised.

As members of the communities who will carry on use of the site once the operation is complete, we think it is important that waste rock is carefully managed, to ensure that upon closure, the site will be capable of supporting the environment that existed before it was disturbed.

This is important not only to ensure the waste rock will not contaminate surface water, but also to ensure the future landscapes can be structured to blend in with the pre-disturbed structure.

As Cameco identified, efforts are being implemented to ensure the volume of waste rock is minimized.

While this is a positive step forward, the EQC would encourage the CNSC to carefully monitor the volumes of waste rock required for future mining activities and to ensure that all possible waste rock management options are explored by Cameco prior to the final approval.

The second issue we would like to raise involves the quality of the effluent being discharged to the environment. While the current discharge limits are adequate for the time being, long-term operations at these levels will have the possibility to effect the surrounding environment.

In achieving future limits, we would encourage the segregation of waste streams to prevent the mixing of contaminants with clean effluent. By separating the waste streams, the most effective water treatment methods can be used for each stream and the amount of chemicals required for treatment can be reduced and therefore, the effects on the overall environment, in the long-term can be reduced.

Finally, we would encourage all future developments at the site to be designed and operated with final decommissioning as a guiding principle and using former mine sites, such as Gunnar as testament to operators who failed to do this.

What we are trying to say is, if you can't decommission it and successfully allow the natural landscape to return, we would prefer you to -- you didn't build it. This holds true for McArthur River, as with the other operating sites.

During our visit, we saw some promising decommissioning activities occurring in areas that were no longer used being decommissioned and reclaimed. This has provided us with some confidence that Cameco's commitment to the reclamation process.

We would encourage Cameco to continue its decommissioning efforts and make an effort to involve

local communities and local resource users to better understand the land as a whole, as well as the people who will be using this land once the mine has moved on.

This can only improve the concept of returning the land to its previous state or a close facsimile.

In closing, we do support the relicensing of the world's richest uranium mine. We are counting on the expertise of the CNSC and the provincial regulators to ensure Cameco carries out all its activities in a responsible manner in accordance with all licensing and operational requirements.

I'll now hand it over to my colleague here.

MR. FERN: Thank you, Norman. For the record, my name is Victor Fern.

I'm NSEQC rep for Fond-Du-Lac First Nation. I'm a traditional land user, I still practice my traditional way of life and I'm also a former Cameco employee for 23 years at Rabbit Lake.

This is a site -- this site has now been operational for over 30 years, with the current reserves identified at Eagle Point Mine and with the proposed processing of solution from the Cigar Lake operation.

It appears that the life of this facility will be coming closer to 50 years. A lot can happen in 50

years. Changes in technology and advancements and scientific knowledge and changes in market conditions all help changed the face of the uranium industry.

Opportunity for the public involvement and greater concern for an environment have also advanced since Rabbit Lake's first opening licence was issued.

We want to ensure that Cameco is keeping pace with the changing world and that the best scientific knowledge and technological developments are used to upgrade and maintain the facilities at Rabbit Lake to meet the challenges of the upcoming licence term.

We look forward to receiving and reviewing the planned annual reports from this facility, in order to monitor its progress and allow us to report back to our communities and issue -- issues and concerns, and success of the operation.

As part of keeping pace with the current mining trends, we could encourage Cameco and the regulators to seriously consider detailed decommissioning plans for all the unused areas and facilities at this site.

This point becomes more critical as each licence extends the life of the facilities and each visit ensures little work has been done towards restoring the site to pre-disturbance conditions.

While an effort to decommission the B-Zone pond is underway, local communities are still uneasy and the removal of the cofferdam; this stems from the release of water in the A-Zone pond and the D-Zone pond in the past.

Communities were -- we were unclear as to why these pits were safe for release when it was the B-Zone pit which was older and is still not safe for release.

Communities have become uncomfortable with plans to remove the cofferdam of the B-Zone pit water and allow it to join the Collins Bay due to lack of knowledge of this area or reclamation.

We encourage Cameco to increase communications to help increase confidence and efforts that Cameco is putting forward to ensure the protection of the environment. We have participated in some initial workshops aimed at identifying and designing the new tailings management facility for the site.

We understand that this will be required in the next five to 10 years depending on Cameco's ability to access the Cigar Lake deposit.

While we understand the need for the new facility, we would like to see the original above ground tailings management facility properly decommissioned.

Proof that Cameco is capable of successfully decommissioning the original tailings facility at the site will build confidence and the future development can also be decommissioned.

During the site visit, we witnessed the efforts put forward by Cameco in reclaiming the unused areas. We encourage Cameco to continue these efforts and to involve local communities in the reclamation aspects to increase confidence in the proper management of all aspects of their facility.

We would like to take this opportunity to acknowledge the efforts of the CNSC staff and expertise they possess in regulating uranium operations in this jurisdiction.

In closing, we do not support the relicensing of this facility. We encourage continued diligence of both provincial and federal regulators in assuring that site operations within the terms conditions of its licence and that Cameco continue efforts to communicate with NSEQC as well as the local communities.

Thank you for the opportunity to have the voices of Northern Saskatchewan heard as part of the regulatory process. Just a correction -- in closing, we do support -- I think we said we do not support ---

**( LAUGHTER/RIRES )**

**MR. FERN:** Just a correction.

**THE CHAIRPERSON:** We're going to check.

**MR. FERN:** Thank you.

**THE CHAIRPERSON:** Just caused some panic over there.

**( LAUGHTER/RIRES )**

**THE CHAIRMAN:** Okay, Dr. Barriault.

**MEMBER BARRIAULT:** Merci, M. le Président, thank you.

I guess my question is to CNSC. Do we have a decommissioning plan in place for, let's start off I guess with Key Lake and with MacArthur and, finally, with Rabbit Lake. That's correct, yeah.

**MR. LeCLAIR:** Jean LeClair, for the record.

All three sites have preliminary decommissioning plans in place.

**MEMBER BARRIAULT:** And can a decommissioning run parallel with a development of, for example, Cigar Lake or whatever?

**MR. LeCLAIR:** In fact, reclamation or decommissioning is encouraged throughout the life of the mine because the sooner you reclaim the disturbed areas, the better. In fact, you hear some of that in the interventions as well.

**MEMBER BARRIAULT:** And do we have a time



line for the decommissioning?

**MR. LeCLAIR:** No, there's no specific set timelines for doing that. Clearly, there's progress that's been made, but certainly we want to continue to encourage that that be done.

**MEMBER BARRIAULT:** Is it possible to have a timeline?

**THE CHAIRMAN:** Can we ask Cameco to take this one?

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

And we recognize the stakeholder interest that we heard here tonight about the facility AGTMF at Key Lake and we are working with them in relation to that. We are planning for progressive reclamation of the AGTMF and I'd ask Kevin Himbeault, the Manager of Safety, Health, Environment and Quality at Key Lake to give some details in that regard.

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

Kevin Himbeault, for the record.

I guess part of that first question was on the timeline. We do in fact have a 10 year plan that has been submitted to both the province and the CNSC. It lays out what our plans are for reclamation work at the site over the next 10 years and it ties closely in with areas

within the preliminary decommissioning plan as well.

So older facilities, things that aren't being used, what are we doing with them.

**MEMBER BARRIAULT:** So the reason why you're applying for a 10 year licence is that you will have time to do this. Is this correct or is it just that you picked a number of 10 years to do the decommissioning?

**MR. HIMBEAULT:** You know, 10 years was sort of just, I guess, a number we picked. It was in 2010 that we initially did that plan. So it's not in line with this, but certainly does allow us that opportunity to complete those tasks.

Specifically on the above ground tailings management facility, I think it's important to recognize that that facility is still a functioning facility. We operate that facility. It is a licensed facility.

We utilize that to dispose of contaminated material that we cannot ship off site. It gets deposited in there.

We have been and continue to work on the development of our decommissioning plan. Just, you know, even recently this year was drilling of the pile to look at ice lenses that had formed in that pile in that facility through historical times and getting a better understanding of when the opportunity would be to

decommission because we have to be -- we can't have those frozen tails in that area at that point in time.

We have met with the EQC and with the regulators and discussed what our plans are conceptually. There is a conceptual plan in place and we are starting to fine tune that and we hope that in 2014, we'll be, you know, meeting with the EQC and community members to talk more about the plans for that facility specifically.

**MEMBER BARRIAULT:** Because given the history of uranium mining in the area, I can understand the anxiety really of some of these groups. I mean, we've heard this afternoon that Gunnar is still not cleaned up really after all these years. And you know, I know that you're not responsible for this, but you're going to have to live with that history really in the mining industry.

So that's my reason for asking about this decommission.

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

And we do expect at least another 30 years of operation at the Key Lake mill. And so in that conversation, there are these plans in place to actively reclaim those areas.

So it's one of the success stories that we trumpeted in our presentations that the active reclamation

work that's taken place over the previous licence term and having those site-wide reclamation plans in place for both Rabbit Lake and Key Lake will put us in good stead as far as planning and engagement with communities in relation to those facilities.

**THE CHAIRMAN:** Let me jump in. I think that in the last few years, we got to the NPPs, the nuclear power plants to come up with the end game. I'm a fan of having end game.

And end game means that it's not a legal end game. It's your current projection of when those facilities will in totality be returned to nature.

I would like to see those end games to all the facilities, everything, and as time goes on, you can amend it if new information, new ore is found, whatever. But not having a long term, I don't care if it takes a hundred years, with a particular term forecast of where the end game is, I think leaves everything up in the air.

So from -- I know that it has been something that the regulator has been thinking about, so let me start with staff. Is that a reasonable request to see in, starting with the next annual report?

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

Yes, I foresee it as a reasonable request.

As you mention, it's the potential resistance of putting numbers or the end game, but we were able to successfully do it with nuclear power plants and the key point here is, it's a projected timeline and, as you mentioned, it's -- the scale of it can be shifted, either moved up or the progression of -- the approach towards the end game will be monitored accordingly.

From CNSC perspective, we don't foresee any issues.

**THE CHAIRMAN:** Cameco?

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

I think that the purpose of the preliminary decommissioning plan and cost estimates is to give you that and to provide the communities the comfort about what the plan may look like, but because these are active facilities that are subject to mining and milling activities and some changes throughout the licence period that is subject to the regulatory oversight of the province and the federal government, I think it's very difficult to go much beyond the conceptual decommissioning; that's the basis of those preliminary decommissioning plans.

So the site-wide reclamation plans are really giving that comfort in the licence period about the

activities that will be undertaken. And the long term view is the PDP gives us that backbone for the picture if we had to decommission in the immediate term.

**THE CHAIRMAN:** Well, my understanding is we got the same reply when we approached the NPP because we are looking for the total decommissioning. As you know, you can decommission an NPP in 10 years or 60 years depending on how you want to do it.

I think the discipline of having a date is good, even if it's a projected date. So we're going to have some further discussion about this because not having a date doesn't give you any comfort, and the decommissioning plan, as I understood it, focused on the financial amount of money that you need to actually decommission.

**MR. MOONEY:** The other point in relation to these facilities is they're subject to environmental assessments. We talked earlier in the evening about the Key Lake Extension Project which looks at continued operation of the facilities, but that also speaks to the decommissioning of the facility and the assessment in relation to what decommissioning would look like.

So there are a number of different pieces already around this, and we'd be reluctant to commit to the next annual report having a firm picture on that,

besides the work that went into the preliminary decommissioning plans.

And the other point on the preliminary decommissioning plans with the provinces is they're updated, and they're updated to reflect both the licensing period of five years, a period that we've had, and the other updates that we are subject to are when we have significant activities onsite that change, so it changes the preliminary decommissioning plan and what you're going to do in relation to those facilities.

**THE CHAIRMAN:** Questions?

Ms. Velshi?

**MEMBER VELSHI:** A question for the three committees. So you are advisory committees to the Saskatchewan Ministry of the Environment, and the recommendations that you have brought forward to us today, I wondered how that would have played out with what you would have submitted to the Saskatchewan Ministry of Environment and whether they would then have followed those through with Cameco, and is this just an alternative forum for you?

**MR. BOYES:** For the record, my name is Scott Boyes. I work for the Ministry of Government Relations.

And if I may take a couple of minutes of

the Commission's time, I'd like to explain the nature of the EQC from the province's perspective and then perhaps ask you to repeat the question.

The provincial government established the NS-EQC in the mid-nineties during and, in fact, in response to the joint federal/provincial panel reviewing several uranium proposals at the time.

The point to address the Panel's recommendation was to try and ensure that northerners had a greater voice in the development of the uranium industry. The province established the committee as a means to improve the dialogue between northern people, government regulators and industry.

And we wanted to make sure that northerners were able to be better informed about the industry and that their voice was just as strong as those of other parties. So the province established the NS-EQC, originally three subcommittees but now operating as one.

It was established through an Order-in-Council and the Minister of Northern Affairs at the time, which would now be the Minister of Government Relations, appoints the members based on nominations from the various communities.

We periodically review the NS-EQC program. Most recently, we expanded its mandate to include



exploration, and that was done at the request of the EQC members. We're about to review it again, and membership in the EQC is a common item for discussion.

To date, we have not engaged larger agencies or other interests as members because we want to maintain the focus on northern communities. These are the bodies that are most affected by the mines, and they are the ones that we want to make sure get support in establishing a good and useful dialogue with the regulators and with industry.

Now, to support this dialogue and to further understanding, the province has established another body, the Northern Mines Monitoring Secretariat. This Secretariat is essentially the government regulators who have an interest in this industry.

It includes representatives from Saskatchewan Environment, from the CNSC, Saskatchewan Labour and Workplace Safety, the Population Health Unit, Dr. Irvin, whom you've heard from a couple of times, Advanced Training and Education, Energy and Resources, and ourselves. Our own interest is making sure that northerners are engaged and can derive the maximum benefits possible.

The Secretariat monitors discussion at the NS-EQC and is prepared to offer technical expertise and to

bring that scientific expertise that has been spoken about earlier.

Let me, at this point, compliment your own CNSC staff for being always at hand and available to answer questions from the EQC.

However, it was never our intention to have such scientific experts as members of the EQC. Rather, they exist to support and inform the EQC in its operations. That sort of technical assistance is always welcome, whether it be from government sources or from other sources.

The mandate is focused on uranium and exploration, but it is quite broad within that limit. Its primary purpose is to consider environmental issues and worker and public safety issues, but they do also get reports on and offer comments on social and economic factors as well.

The EQC meets with industry and regulators quite frequently and occasionally does hear from other outside groups.

So with that said, can I ask you to repeat your question or is there a new question that possibly arises?

**MEMBER VELSHI:** So let me repeat the part of the question that I would still like you to answer.

So the EQC has come forth with a number of recommendations, and given that it's advisory to one of your forums, have these recommendations come to you first and, if so, what have you done with them, or is this the first time that they have had an opportunity to present these recommendations?

**MR. BOYES:** For the record, Scott Boyes.

The recommendations, I believe, are made first and foremost to the CNSC. Certainly, given our attendance at the EQC meetings and frequent contact with the northern representatives, I'd like to think that we know what some of their concerns are, but this presentation, for instance, has not been, to my knowledge, previously sent to our Minister.

**MEMBER VELSHI:** So let me pick on a couple of specific recommendations, because I don't think the intent was for the EQC to bring these recommendations for the Commission to make sure they're addressed. I mean, that's not how they've been set up.

So if I look at Key Lake on page 3, and these are general recommendations. I actually would like to see more specifics, but it says, the third paragraph down:

"...the need for updated and upgraded environmental practices."

So it's the paragraph that starts with:

"While the current mill revitalization project is obviously aimed at making the mill more efficient at producing uranium, we would like the regulators to ensure that this project also addresses the need for updated and upgraded environmental practices."

So the question here is would this recommendation have -- I guess the CNSC is part of, as is the Saskatchewan Ministry of the Environment -- part of this body, so they would have seen this and presumably responded to it?

**MR. THOMAS:** For the record, Darren Thomas, current manager for the EQC program.

One of the things that we do discuss, we have these discussions quite often at our quarterly EQC meetings, and the CNSC, Cameco and other industry representatives are sitting around the table.

This is something that we do bring up quite often to both the province, the federal regulators and Cameco themselves. But what we wanted to do was also make the awareness -- bring the awareness to the Panel or to the Commission themselves on some of the concerns that we have that we brought forward.

We've heard from Cameco in terms of decommissioning and plans for the aboveground tailings facility. That has been a concern for some of our members for over 10 years, and they've been getting the same response, "We are progressively decommissioning. We are getting to that point".

What the community would like would be developed plans.

Alongside these concerns, our concerns are, are we using the best technology possible? We're always being told that this is the best technology right now, and 10 years, 15 years, something else changes.

So we want to ensure that we're always constantly moving forward. Licenses, legislation, things like that, are written in stone and not very easily changed.

So we want to ensure that there's always a process that we can evolve. And with Cameco, through their -- probably their EMS system, we can ensure continual improvement, but this is something that has always been a concern for the community members themselves.

And as the EQC representatives, the two sitting here, here in their communities they bring forward to the EQC Committee, and as the manager I bring forward

to the MMS or here, in this case, the Commission. Just to ensure that everyone's on the same page and that the voices of the north is heard and it's not just one outlet.

**THE CHAIRMAN:** Let me just piggyback on that.

So you've been around for a few years, quite a few years. How long have you been since it was established?

**MR. WOLVERINE:** I have been appointed on to this committee just last November, so I'm fairly new to this committee, and my colleague has been on this committee since the start.

**THE CHAIRMAN:** The start being -- I don't have to have a exact date, 10 years, 5 years?

**MR. BOYES:** It was -- for the record, Scott Boyes.

It was established in the 1994-'95 period. I believe the authorization was given in '94 and the committee began operations in 1995.

**THE CHAIRMAN:** Okay, so you've been around for a while. So the question is, do you feel it's working? Do you feel your advice, your analysis, is actually being listened to? Let me put it that way.

**MR. WOLVERINE:** For the record, my name is Norman Wolverine.

Since day one, we have had a lot of questions from different people that have come and gone that sat on this Board, but I've been there since day one. So I kind of recollect a lot of these questions that have come forward to the province and regulators, and a lot of times where part of the answers had come back.

We were not sure what Cameco was up to a lot of times until lately when we started asking questions about this tailings facility. I was one that asked the question 10 years ago to find out when it was going to be decommissioned because it was just sitting there.

Since then, we've had people from Cameco come to me and say, this is the study we're doing. Recently, they've come to Patuanak and said, this is how it's going to look at the end, this is our study. So it's always a study, study, study thing. So anytime we ever ask questions -- now, we're asking CNSC more about the regulations and how things should have gone.

We have had elders approach me, especially this fall, on our cultural camp. They've been asking me about when that big hill that they see from the highway is going to look like one of those other hills that are natural hills. I still don't have an answer for them.

**THE CHAIRMAN:** It's a hill where? Is it in ---?

**MR. WOLVERINE:** At Key Lake.

**THE CHAIRMAN:** It's Key Lake.

**MR. WOLVERINE:** Yeah.

**THE CHAIRMAN:** Okay, Dr. McEwan.

**MEMBER MCEWAN:** So one of the very specific items that you talk about at Rabbit Lake is the concern in the communities about the B-Zone pit and the plans for ultimately breaking the berm down into the lake. I mean, this seems to me to be very specific concerns, very specific questions.

I guess, to both staff and to Cameco, do you have answer for the communities on how that'll be addressed and how those concerns could be ameliorated?

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

In any plan for the breaching of the B-Zone Cofferdam into Collins Bay will be subject to the review and approval of regulatory authorities such as the CNSC and the Provincial Ministry of Environment. The breaching of the Cofferdam will be subject to ecological risk assessments, including human health risk assessments.

So there is going to be regulatory oversight and engagement. The D-Zone Cofferdam, which was part of the activities that were carried out at Rabbit Lake during the current licence term, was carried out successfully and had a good deal of community involvement



in relation to it, including having a community observer present while the activities were carried out, specifically the breaching of the Cofferdam.

**THE CHAIRMAN:** Go ahead, please.

**MR. FERN:** For the record, Victor Fern.

We realize that there were -- these Cofferdams were removed from A-Zone and D-Zone, and the reason why people from my area are concerned is that we're downriver from where the mines are, and they weren't consulted. The only community that was consulted, which is Hatchet Lake, which is located on Wollaston Lake where the mine is located, but we are further down the stream on Lake Athabasca and not all the communities were consulted the same way as the community of Hatchet Lake was consulted with.

In future, decommissioning or any work that's being done to remove anything of that nature, I believe that all the communities should be consulted the same way as any one of those seven communities that are in the impact area.

**THE CHAIRMAN:** Cameco, you want to reply to this?

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

And in relation to those activities,

Hatchet Lake being the closest community to Rabbit Lake, there was more consultation directed specifically to those activities. That being said, we're always looking for opportunities to improve and have a measured approach about our consultation, having regard for the potential impacts.

In relation to the specifics, there are monitoring programs that are in place to show that the breaching of the D-Zone Cofferdam did not affect the downstream receiving environment that was previously discussed.

**THE CHAIRMAN:** Do you want to add something to this?

**MR. THOMAS:** Yes, for the record, Darren Thomas.

This is just going back to your original question, whether this process has been working. It's been 17-plus years that we've been doing it. It's a growing process, so we can't say that, yes, it is working, no, it's not. So we're constantly developing relationships. A lot of this is about relationships.

In the north, there is a lot of animosity towards government regulators, industry, as you've seen today in terms of some of the intervenors and some of the history, and that's something that we're trying to

overcome with the EQC -- within the EQC. So we're developing this relationship with Cameco. They are doing an excellent job in their treaty relations, but there's also some evolution and some further development that needs to occur for the entire communities.

One concept is traditional territories. These mines are within 100 to 200 kilometres within each -- within an area. Most of the communities within the EQC claim this area as traditional territories, so we're talking about vast -- up to 500 kilometres across in some of these traditional territories.

So the concept of just having the closest proximity, the community's only 10 kilometres away, 5 kilometres away, 100 kilometres away, becomes an issue where we have community members who look at traditional territories that's far vaster than some of the, I guess, scientific approaches for it.

**THE CHAIRMAN:** Well, let me ask you, it's maybe a tough question. Do you have the credibility with the communities?

**MR. THOMAS:** Within the EQC, we're developing that credibility, being the fact that the government has funded this vehicle and it is popular by northern communities. They're still having the trouble of seeing it as at arm's length, and that's what we're trying

to develop, the EQC, as its arms length. We're not controlled by government. We're not controlled by regulators. We're not controlled by industry. It's an opportunity for the northerners to come forward, voice their concerns, their issues, and get answers.

As the manager of the EQC program, it's my job to take those questions and bring in the experts, whether they be from industry, regulators, or other places, as we heard from the Environmental Society. Bring in those other viewpoints in to help educate the communities and the representatives so they can go back to their communities and discuss.

**THE CHAIRMAN:** Thank you.

**MEMBER HARVEY:** I have a question.

**THE CHAIRMAN:** Mr. Harvey.

**MEMBER HARVEY:** Merci, Monsieur President.

On page 2 of the McArthur River document, the third paragraph, the second issue present at the second sentence:

"While the current discharge limits are adequate for the time being, long term operations at this level soon will have the possibility to affect the surrounding environment."

I do have a problem with that. I would

like the staff to comment on that because if we are going to have a problem in the future it is to say that the current levels are not appropriate.

**MR. MCKEE:** Malcolm McKee. I -- correct me if I'm wrong but I believe the issue with McArthur River was that, with our experience at the other sites where we identified certain contaminants, uranium, selenium, molybdenum, as contaminants that needed to be regulated at specific sites, they also then became standard contaminants to be investigated at all of the sites.

And one of the things that resulted in then was a re-run of the Environmental Risk Assessments for McArthur River, to look and see if we were properly ranking the various contaminants of interest at the sites. And the ones that came up, even though we had no specific concern about those contaminants at that time at that site, it was identified that in order to make sure we didn't have long term -- concerns about those contaminants in the long term, those were identified within the -- within Cameco's significant aspects and in their Environmental Management System as contaminants that were to be targeted for reduction, to make sure that we didn't run into problems in the long run.

If you look at the legacy mine sites,

what are the substances that we are looking at at those sites still, it's selenium, molybdenum. So that was a case of there were no specific issues at this present time with those substances but we wanted to make sure that they weren't going to become specific issues in the long run at those substances.

**MEMBER HARVEY:** Okay, now it's an obligation to take care of those like the other contaminants? I mean, you mentioned selenium and molybdenum but the other contaminants now will be taken into consideration?

**MR. MCKEE:** Malcolm McKee, for the record. That's the whole purpose of having the monitoring programs, Environmental Risk Assessments and continuously re-evaluating. That's to ensure that even in the -- over the long run we are continuously improving our performance wherever possible. That's why we're pleased to hear the comments from the EQC with respect to, for example, Key Lake and the upgrades to production facilities and so on.

But we are still looking for -- expect to see a long term commitment for any long term activities at the site to also continuously look at upgrading treatment performances along the -- and recognizing improvements in science and technology and implementing them when feasible.

**MEMBER HARVEY:** Is this to say that the -- in 10 or 20 years for example, that the current levels could be lower than -- different from the current level? I mean the requirements.

**MR. MCKEE:** Continuous improvement is a goal and objective which is inherent in all our regulatory practices. It's a commitment within the Environmental Management System.

And it's also -- was something that was tied directly to the Federal Provincial Panel recommendations in the late 1990s, in support of the regional mill concept. Was the recognition that a regional mill concept would over time result in more and more use in a similar -- in the same drainage systems. So coming with the regional mill concept was the concept of continuously looking to having to reduce and improve performance as well.

**MEMBER HARVEY:** Thank you.

**THE CHAIRMAN:** Dr. Barriault?

**MEMBER BARRIAULT:** I've got a stupid question to ask and maybe I can get a straight answer. Is it possible to operate a mine or a mill without a tailing pond? Cameco? Because that seems to be the focus of problems no matter which mine we're looking at. Even in other mining industries other than uranium. I mean, can

you have dryers to dry all that effluent?

**MR. MOONEY:** It's Liam Mooney, for the record. And a mine requires a tailings management facility.

**MEMBER BARRIAULT:** No, I understand. You have to have tailing management facilities but do you have to have tailing ponds because what's happening is that these are rupturing or leaking. You have problems cleaning them up and getting rid of the contaminants and all of a sudden they wind up in the river and lake systems. So I'm wondering if it's possible to avoid this?

**MR. MOONEY:** So -- it's Liam Mooney, for the record. We have tailings management facilities that you've heard about, the Rabbit Lake In-pit Tailings Management facility and the Deilmann Tailings Management facility at Key Lake that have subaqueous deposition as part of those engineered tailings facilities.

We also have treated water that's produced as part of our milling process at the Key Lake mill and the Rabbit Lake mill. As well as mine water that is produced at the Eagle Point mine and the McArthur River mine.

So all of those streams, as part of our environmental management systems are looked at. And as Mr. McKee referenced, one of the goals of the



environmental management system is continuous improvement. So looking at opportunities to improve the quality of water and also the water usage at all of our sites.

**MEMBER BARRIAULT:** Thanks. Can I ask CNSC, does that possibility exist? Is that technology there?

**MR. MCKEE:** If you are going to mill ore and separate out a desired product you have the remainder that you need to manage and dispose of in a safe protected manner. So I cannot foresee how you would be able to mill ore without having tailings and having to manage those tailings.

Having said that, the -- as you said with those issues of -- historically through issues of loss of containment with above ground tailings facilities, seeps, that's why presently, the preferential method of managing tailings, especially for problematic tailings or tailings that is below grade. So at least the one issue you are not dealing with is maintaining an above ground engineered structure.

So that's one of the reasons that actually the Federal Provincial Panels back in the late 1990s were -- one of the key things that made them more comfortable with the uranium mining proposals was the in-pit disposal systems. Such that there is no above ground structures that require long term maintenance and ---

**MEMBER BARRIAULT:** Thank you. Thank you, Mr. Chairman.

**THE CHAIRMAN:** Anybody else? Question? First of all, are you the people who are actually publishing Opportunity North?

**MR. THOMAS:** Actually no, we're not. But we do contribute to Opportunity North in terms of our committee updates and things of that nature to reach out for the communities.

**THE CHAIRMAN:** I just was going to compliment you. It's a good read.

**MR. THOMAS:** Okay, in that case, I'll take credit for it! No, kidding.

**(LAUGHTER/RIRES)**

**MR. LeCLAIR:** Mr. President? Jean -- sorry, Mr. President. Jean LeClair, for the record. Actually the publisher is in the room here actually. I think she is at the back.

**THE CHAIRMAN:** Who is this?

**MR. LeCLAIR:** Jill Gracey, I believe.

**THE CHAIRMAN:** Good stuff. I was going to ask you, you mentioned a couple of times that Cameco can gain credibility by showing how you can decommission or remediate.

We've seen some examples of some sites that

they already remediated. Are people aware that there are such sites? That they have already proven that they can actually reclaim some or you're still not sure that it's a real proper end game for some of those properties?

In recent site tours, we have seen their decommissioning and their reclamation plans and some of the progressive reclamation happening, in particular at McArthur River. And it has increased the confidence level of some of the EQC members and they are taking those issues back.

But those are also beside the long term issues of say, the aboveground tailings facility management -- management facility that the communities and the elders have issues with.

So it's kind of -- they're doing a bad job on one hand but then they're starting to do a better job at the other hand. So we are trying to reconcile that and develop that relationship and that trust with the industry.

**THE CHAIRMAN:** Okay, thank you. If there's no other question -- go ahead.

**MR. FERN:** For the record, Victor Fern.

I do have another issue that I want to bring up. This is the Rabbit -- the original Rabbit Lake pit low grade ore stockpile, what -- does the company have

any plans to deal with this stockpile within this licensing period or the next 10 years that they applied for?

And also, the adding and eliminating effluent treatment components such as the sand filters were eliminated from the Rabbit Lake operation from -- when I first started there in 1984 there were -- they were they already and they were -- they operated -- I'm not sure when they were taken offline just recently.

I think when we take components off of effluent treatment or add anything on, I think the communities should be consulted. And that with any environment impact study done on projects, there should be local community members involved as well when we're doing studies for the -- for any projects that are underway or that are projected.

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

And I'll ask Scott Britton to comment on the ore stockpile question and follow that with Kirk Lamont to make mention of the sand filters.

And I think I did want to emphasize before doing that that we do consult and engage in relation to activities on site and that's a graded approach having regard for the activities. There are many operational

issues that are dealt with on a day-to-day basis that don't themselves have an environmental effect associated with them. So we don't consult in relation to running our business.

However, we do have those project specific activities that we engage with. And then on our regular engagement activities giving a sense of what the planned activities are at the site as part of those communications.

**MR. BRITTON:** Scott Britton, for the record.

In regards to the original low grade ore stockpile, the remnants still exist on site. It's our intent over the next few years to schedule and process that material at which time the waste stream will end up being in the Rabbit Lake In-pit Tailings Management Facility.

**MR. LAMONT:** Kirk Lamont, for the record.

Regarding the sand filters that have come up, the sand filters at our effluent treatment facility have been taken offline earlier this year as part of a one-year trial. This was studied and was done in consultation with both CNSC and the Saskatchewan Ministry of Environment.

The intention of this is to study the

effects on the effluent without the sand filters in place to show that the effluent stream at that point that the sand filters don't have an effect on it and that the water remains clean and protective of the environment without the sand filters in place.

**THE CHAIRMAN:** Thank you. Does that answer your question? And by the way, I understand you periodically meet with Cameco, so presumably you can get all the answers or at least try to get the answers from them.

You have the last word.

**MR. FERN:** Yeah, that pretty well answers my question and I'd like to thank you for giving us the time to do the presentation here. And merci.

**MR. WOLVERINE:** Norman Wolverine, for the record.

I too had a lot of concerns in the past. I've had a lot of questions from my band members. Key Lake, Rabbit -- McArthur and the new one coming on mine, the millennium, are all on English River traditional territory.

We have some elders that have passed on that had concerns about the tailings. I am now almost an elder, I guess. I will pass on some information like I have this summer to my grandchildren. They are knowing

what's going to be left there when the mining is done.

People from English River know already what's going to be left behind. We are going to live with the spoils is what we're saying. Other people that have interests are going to be gone. They will no longer have interest.

English River band members will always be in that area. So when we ask questions, when Cameco visits (inaudible) and we have questions, it would be nice to be honest and say, "Yes, we're going to be leaving that garbage with you." That's what they want to hear.

Now we will get ready for this. Our grandchildren are going to get ready for this. We're damned if we do, damned if we don't. Everybody has a concern and everybody's right. So is there a real answer to the problem?

Thank you.

**THE CHAIRMAN:** Well we -- presumably we -- having those -- this session to try to clarify as much as we can as we move forward and I will continue to clarify at least from a regulatory perspective what are the expectations are and what the outcome is like.

So we are putting in place annual reports and hopefully you'll have a better, more frequent occasion to ask those tough questions.

So thank you for your presentation. Much appreciated.

**THE CHAIRMAN:** I'd like to move on to the next presentation from Dr. Roberts as outlined in CMD 13-H13.17, H14.15 and H15.14.

**13-H13.17 / 13-H14.15 / 14-H15.14**

**Oral presentation by**

**Rose Roberts**

**MS. ROBERTS:** (Speaking in native language)

Good evening. My name is Rose Roberts. I grew up in Stanley Mission and Hickson Lake. I feel like I'm kind of the odd duck in this group because I'm neither pro or con for whether Cameco gets its licence or not. I'm here to speak as a proponent for the land and for the healthy lifestyle that we can benefit from, from being on the land and including eating the foods harvested from the land.

I have a PhD behind my name as the western portion of my credentials. And I also have grown up in the north. I have learned the traditional knowledge from my parents, my grandparents and other family members.

Being on the land is where I'm happiest, it is where I am most content. And in fact, I just came off



La Ronge Lake where my mother and I were practicing our traditional crafts of making moose hides. No matter how many times you rescraped, we couldn't get them soft enough. But she is 75 years old, setting fishnets and all those other activities that keep you healthy when you're physically active and you're eating healthy food that is lean and it's not overloaded with fat and carbohydrates.

So to end off the session being the last speaker and because I am also a professor, you get to be ended with a lecture to help you prepare you for sleep.

The First Nations Métis and Inuit that live in the northern part of Saskatchewan originally came from hunting and gathering cultures. This is what we did, this is who we are. We live off the land. Everything we needed to survive we got from the land. In order to survive in the harsh pre-Cambrian shield, you need to have a thorough knowledge of the environment, the plants, the animals, the weather patterns and the land.

This traditional knowledge has been passed down generationally and it has developed a deep understanding of our particular place connecting to our cultural identity of who we are as First Nations or Métis or Inuit.

Unfortunately, the effects of colonization, residential schools and the *Indian Act* have wreaked havoc

on the health of First Nations Métis and Inuit people.

We exceed the general Canadian population in practically every health statistic. We have a shorter life expectancy, we have higher rates of addictions, we have higher rates of suicides, accidental death and injury, infant mortality, we have epidemic rate of diabetes, lower education rates, lower socioeconomic status and high violence rates in our communities. However, our populations keep growing and the mantra that we hear is that we're still here. We're not going anywhere.

Some of the historical context I want to provide right now is the tribal groups -- and you've heard a lot of this in the presentations already -- in Saskatchewan are the Woodland Cree, the Denesuliné and the Métis.

And the northern Saskatchewan administrative district is demarcated by an invisible line; north of Prince Albert, Meadow Lake on the west side and Cumberland House on the east side.

And within that land mass, the population, according to the 2011 statistics, was 36,557. And in comparison, Saskatchewan total population is 1,033,381. Now when you look at the land mass, the geographical area is over 269,000 square kilometres and it makes up 46

percent of the province's land mass. However, only 3.5 percent of Saskatchewan's population lives in the area.

As I mentioned before, the population is increasing. It has increased from 3,000 in 2006 census and 3 treaties were signed in the area. Treaty 6 was an adhesion in 1889 and that was primarily the Woodland Cree that signed adhesion. There weren't very many changes made to the treaty from the ones that signed it in southern Saskatchewan.

And then in Treaty 8 and Treaty 10, Treaty 8 was signed in 1899 and Treaty 10 in 1910. When the treaty commissioners made their way up into the further northern areas of the province, the community members were really concerned about losing their ability to maintain their traditional lifestyle.

And the commissioner at the time, Commissioner McKenna said you will still be able to practice your traditional lifestyle. Signing the treaties will not have any effect on that.

And in accordance with that treaty recognition is another concept called Aboriginal right and title. And Aboriginal rights are separate from treaty rights, and these are the practices, customs and traditions unique to First Nations prior to colonization.

Furthermore, these rights are protected

under the *Canadian Constitution*, indicating no government can take them away. The Aboriginal title, considered an Aboriginal right, is the right to the land itself. It is a communal right. And although the Royal Proclamation states that it can only be given to the Crown through treaty negotiations, First Nations consider the agreements as land sharing, not land session. They never intended to give the land away. It was always meant to be shared.

My background and my PhD is as a community health and epidemiologist. So every facet of my knowledge base is around the area of health. And the report that I presented to the Commission is from a health background with a health perspective. And I'm not going to necessarily go into a lot of detail in terms of the health framework, but as epidemiologists and health care practitioners, we love trying to organize our world according to a framework.

So on this slide, you'll see that I've put up four examples of health frameworks. There is one from the Four Worlds International Development and a lot of its determinants are more conducive to the First Nations world view.

And in specifics, some of the determinants that they provide in there are spirituality and a sense of purpose, adequate income and sustainable economies,

adequate power, cultural integrity and identity, healthy ecosystem and a sustainable relationship between human beings and the natural world.

Another health model is the Political Ecology of Health, and the reason why I like this one is because it's related to how we use the land. We need to have autonomy. We need to be able to use and enjoy the environmental resources and, through that process, economic choice and opportunity as well as individual health and well-being.

The medicine wheel is the framework that I used in my report and this is a framework that has been used extensively in Aboriginal communities. And it is very robust and the teachings behind the wheel is that there is no beginning, there is no end, which means that everything is all circular and equal in its importance.

In terms of economic factors in northern Saskatchewan prior to colonization, there was trading done with other tribes. And then when the fur trade came along, then that increased the economic potential for people to live off the lands.

And we have survived in the fur trade economy in northern Saskatchewan for over 300 years. However, with the advent of the treaties in Saskatchewan, the subsequent settling onto reserves and the creation of

Saskatchewan as a province, this had a huge impact on the economies of First Nations, establishing of trap lines where there were none before.

And this morning or this afternoon, one of the Commissioners was asking, what is the size of a trap line? A trap line is approximately 30 square kilometres and that is handed down generationally through the family.

With the residential schools, children were removed from their communities for the 10 months of the school year, so they did not have the opportunity to live off the land. The grandparents who would be the providers of the traditional knowledge had no students because they were gone for 10 months out of the year.

So the residential school legacy had a huge impact on the ability for future generations to be able to live off the land, and there are Elders that are saying they're forgetting the traditional knowledge. They're not being able to pass it on to those that are coming up into the Elderhood status.

And settling onto the reserves also had an important impact on economics. As more and more families became sedenterized on the reserves, the connections to the land and the fur trade continued to decline.

The sedenterization undermined the relationship of First Nations to their hunting cultures

and added to that was the drastic drop in fur prices in the 1980s. And in the current wage labour economy of First Nations living on reserves, especially of those in remote northern locations, are at a disadvantage.

The 2006 census reports that unemployment rates on reserves are 48.2 percent, compared to 18.4 percent in the general Canadian population. You've probably heard that sometimes in order to get the work, you have to leave your community. And it's true that First Nations that leave the reserves have slightly lower rates at 33.7 percent, but they are still higher than the Canadian general population.

The land as place is an integral part of First Nations people's identity and health. It represents the interconnected physical, symbolic, spiritual and social aspects of First Nations cultures.

The lifestyle of trapping, hunting and fishing is more than economic avenue. Culture is often difficult to define and measure. The World Health Organization defines culture as "The customs, traditions and the beliefs of the family and community that all affect health."

However, as an epidemiologist, I know that it is difficult to measure constructs such as pride, wisdom, identification, customs and beliefs.

From the 1996 Aboriginal people survey, Wilson and Rosenberg found approximately 30 percent of respondents living on reserve stated they spent time living on the land, participating in traditional activities of hunting, fishing and trapping, compared to only 14 percent of their counterparts living in urban centres.

Culture, as a health determinant, is difficult to define but even though it's difficult to define, there are many studies that prove that culture is beneficial. "It is good medicine", as Brent Castellano put it.

And as one Elder said:

"It means for me that I can practice my traditional lifestyle, that I can live healthy, that I can use the land to refresh me. We use the land to replenish our spirit, to go out there and get rid of all the stress."

Many residential school survivors have accessed land-based activities as part of their healing journey and it has proved to be an effective mode of healing.

Traditional knowledge is referred to by other names, such as folk knowledge, local knowledge or wisdom, culture, indigenous technical knowledge,



traditional ecological knowledge. But regardless of what it's called, it is all that is known to a particular people.

All kinds of scientific, agricultural, technical and ecological knowledge, including cultigens, medicines and the rational use of flora and fauna. This knowledge system is all inclusive; what can be seen, thought and heard.

And indigenous knowledge is connected to those particular landscapes of an indigenous peoples. Those places where ceremonies, stories, medicines and transfers of knowledge are properly authenticated. Maintaining connections to the land itself is critical to the accurate and complete transmission of traditional knowledge.

Furthermore, it is protected in Canadian law as Aboriginal treaty rights under Section 35-1 of the *Canadian Constitution* and is recognized under the indigenous treaty of the declaration of indigenous rights at the United Nations level.

And the Supreme Court of Canada has also determined that transferring that knowledge to younger generations is also an Aboriginal right.

The above information shows that there are multiple factors to consider when looking at the

relationship between health and a connection to the land base: history, economy, culture, education, knowledge and identity of a people, and that's only a few of them.

So the next part of this presentation is, as I mentioned, using the medicine wheel as a construct to try and provide with you a balanced look on what an individual needs to do to be healthy. And that individual is also related to a healthy family and a healthy community.

The spiritual component is found in the direction of the east. The east is also the direction of the rising sun, the beginning of a new day and for the teachings for newborns and children. The young ones have a purity of spirit. First Nations understood this, which is why they believe that children are sacred and are only on loan from the Creator and child rearing is a sacred responsibility.

Being out on the land allows for that time necessary for passing on the knowledge to the children. There are fewer distractions. There are no cell phones, there are no satellite TVs, it's just you and your ancestors and the land and the rocks and the trees.

Spirituality is the belief in a higher entity, and regardless of what you call it, it is the belief that there is something greater than the

individual. There is also the common belief that all things have a spirit, the rocks, the water, the trees, the animals, and this belief is why the connection to the land is so special.

Believing that all things have spirit means that one is respectful and reverential in an everyday context, and when one is in the harsh environment of the Precambrian Shield, that respect and reverence can make the difference between life and death.

The concept of living off the land connotes that all needs for life are met and a language of gratitude and reverence is found within the Cree and likely all indigenous languages as well.

The indigenous languages are necessary for a transfer of the knowledge. The intent that can be captured in one word in Cree may need four or more words in English, and the meaning still won't be captured.

And unfortunately, we are seeing a loss of traditional languages in our children and our grandchildren.

The emotional realm is in the southern quadrant of the medicine wheel. The life stage that is represented in the south is youth. The time in life when childhood is passing by, yet adulthood is not within reach, the youth struggle with the complex interactions

between emotions and the fluctuating hormones of puberty.

This is also the time in life when youth begin to process difficult life decisions such as career directions, the overwhelming question asked of them, "What are you going to be when you grow up".

Celebrating life stages was lost due to residential schools, where survival was being taught to hide your emotions.

And another concept that's coming out within the health system is emotional intelligence. Healing emotional trauma requires learning how to process emotions in a safe way, and this is the ability to perceive, control and evaluate emotions.

For many survivors of the residential school system, including those children who have experienced the intergenerational impacts, the traditional teachings of emotional intelligence have to be learned.

Some of the traditional teachings are respect, obedience, humility, happiness, love and sharing. Some of the values inherent among the Woodland Cree were hard work, respect for everyone, especially the Elders, maintaining good relations with others, not getting angry or retaliating, not to misbehave as children, and working together as a family.

The teachings were shared within families

and behaviours outside of the families showcased how well the teachings were integrated. The strong sense of community responsibility ensured that youth were held accountable for their behaviour.

Moving to the west quadrant of the medicine wheel, is the physical component. The physical needs required of daily life such as healthy and sufficient food, clean water, clean air and safe shelter. This is also where the physical environment would have an impact; namely, where one lives, plays and works.

The teachings for the adults come from the west, the life stage where parenting and looking after the community are the tasks for the adult. This is also when the physical development has been completed, and now it's time to master those tasks that relate to this realm.

First Nations people will learn more effectively through experiential methods, seeing and then doing. In addition, the manual skills required to live on a land cannot be taught by being told about it or by reading about it, they have to be physically done repeatedly until the skills are mastered.

It is through this process of mastering skills that self-esteem is built up, the belief in one's abilities that no one can ever take away.

The skills of hunting, fishing and trapping

are not only of survival on a day-to-day basis. They're also a source of personal and cultural identity and pride. The ancestors of First Nations peoples were able to survive in the harsh conditions of Northern Saskatchewan. This ability to survive and thrive is because of physical prowess and mastery.

A healthy physical body requires sufficient calories from healthy food sources and a physical activity level that develops and maintains muscle mass and other bodily functions such as lung capacity. The traditional lifestyle facilitates the development and maintenance of a healthy body. The land contributes to physical health by providing individuals with the foods, medicines necessary to be well.

When I spent 10 weeks on the land, three hours of my day were spent walking, checking my snares and checking my traps, and I am a diabetic, and within that 10-week timeframe, I lost 40 pounds. So nobody can tell me that living on the land is not healthy. I have experienced it personally.

A traditional diet is high in protein and fat, and I know that the western version of the food wheel is like 50 percent carbohydrates. That doesn't work for our bodies.

We haven't become accustomed to that level

of carbohydrates in our system, which is why there are such high rates of diabetes and obesity within First Nations people, because it's so much easier now to go to the store or to go to Chester's Chicken and get chicken than it is to go in the boat, get your gun and go shoot down a 2,000 pound moose.

And it's a lot of work to process that moose than it is to walk into Chester's Chicken and order two pieces of chicken and fries.

So the sedenterization is having a negative impact on the health status of First Nations people.

And the traditional diet is high in protein and fat, especially omega-3 fatty acids, vitamins and minerals, including vitamin C, selenium, iron and zinc, but relatively low levels of carbohydrates.

A study in Northwestern Ontario found grocery and convenience stores were the primary source for regular food needs. The nutrition transition from a diet of traditional foods to that of store-bought foods is one of the rationales for the increasing rates of obesity in Cree First Nations children.

And a study that was done for Northern Quebec Cree children in Grades 4 to 6, found rates of obesity at 34.2 percent and overweight at 29.9 percent. They also found that younger people consume fewer country

foods, but consume the most soft drinks, fruit syrups, fruits and vegetables.

The Inuit have also linked these dietary changes to increased incidences of physical ailments: diabetes, high blood pressure and higher rates of obesity.

Physical activity is known to reduce risks in cardiovascular disease, diabetes, high blood pressure and colon cancer.

Furthermore, it is known for enhancing mental health. Going for a walk is one of the recommendations if you're depressed because it increases the number of serotonin that you have in your brain, which makes you feel good. It's also good for maintaining healthy muscles and bones, as well as health and independence in older adults.

As I mentioned, my mother and I were out making moose hides on La Ronge Lake. She's 75 years old. She's been a diabetic for 30 years. She's still insulin-free because she follows a traditional lifestyle and she eats the traditional foods.

Strenuous physical activity in the context of a traditional lifestyle is necessary: hunting big game, cutting trees and hauling wood, checking trap lines on foot, canoeing, checking gillnets and hauling water.

Living on reserves year round had created a



vacuum of physical activity among the Innu and other First Nations. As one Innu woman said, "I miss life in the country. It hurts to be in the village now".

The final quadrant of the medicine wheel is in the north, the mental or intellectual realm is the capacity to think, to learn, to process information and to integrate it into an understanding of how the cosmos, large or small, works.

The life stage represented in this direction is that of Elder. The Elders are the holders of traditional knowledge, and this stage of life allows an individual to think back on their life's journey and summate all the lessons learned. The grandparents were traditionally the teachers of the children for they had the wisdom and the time.

Cree Elder Rosie McKenzie from Stanley Mission emphasized the importance of the Elder's role. Children were taught to respect Elders. When visiting, they were to sit at the door and listen carefully to what the Elder said. They would also gather at an Elder's house in the evening to say their prayers as a group. It was an expected duty and obligation to help Elders in whatever capacity they could, whether hauling wood or water, or not playing loudly after dark.

The Elders also feel a responsibility

toward stewardship of the land. As Cree Elder John Cook said, "I ask the government. I know there are a lot of big rivers up north, like Wathaman River, Johnson River, Brabant River, that they don't dam them for power. It's a bad thing. They destroy everything when they dam a river. I don't want the Churchill River up north to be dammed. I don't know if they will listen to me. If you don't have clear water you'll get sick. You've got to have clean water".

And as I mentioned before, residential schools also had an impact in this quadrant because the Elders lost a critical role when the children and the youth were removed from the community.

The traditional method of teaching is through stories. Winter was a time for storytelling, passing on of the value and belief system ingrained in stories, and this method was also interrupted by the school calendar of the residential school legacy.

In present day, Elders are reclaiming their role and sit as advisors at most First Nations organizations. The education system also facilitates their participation by inviting them into the schools. Within the Stanley Mission school system, week-long culture camps were organized whereby students in grade five and eight go out on the land along with the Elders

and learn traditional skills.

The culture camps facilitate the experiential learning favoured among indigenous learners and allow students to spend an extended period of time learning from Elders. The girls learn how to gather berries and process the fish and meat that is brought in by the boys who are learning how to do the hunting and fishing. They are learning the skills of their ancestors and often in their own language.

This report has provided the background information on the traditional lifestyle and the impact it has had, or the potential for it to have, on improving the health status of First Nations people and communities in Northern Saskatchewan.

There are many facets of health and there is not premise to the traditional lifestyle of trapping, hunting, and fishing as being able to counteract all those facets. However, there is research and anecdotal evidence to suggest that reconnecting to the land and all that it entails can provide an avenue for economic, cultural, individual, family, and community vitality.

Writing research reports is easy. What is often more challenging is coming up with answers to the question, so what.

My contract didn't include recommendations

as that would likely be beyond the Commission's mandate. But I have included them here anyway because somebody, somewhere, will read this report and perhaps it will encourage them to try what I and others have suggested.

The following are recommendations as potential avenues for creating a space where the traditional lifestyle can flourish and provide an important connecting bridge between the past, present, and future generations.

The first one is economic sustainability. First Nations communities and organizations need to start creating their own economies from within. A diet of traditional foods has been shown to be more beneficial than store bought foods. Therefore, communities can work together to create an economy of hunters being paid to provide food to the community.

There shouldn't be any difference between a rancher providing his beef to a store for consumption versus a hunter providing moose meat, or a fisherman providing fish to the local hospital. Having a supply and demand base of traditional foods can provide an economic avenue for individuals that don't fit, or don't want to fit within the current wage labour market.

A local fur processing plant, as suggested by the Saskatchewan Fur Trappers Cooperative would provide

jobs and skills for community members. The market could be to local arts and crafts peoples who could then market their products outside the community. There is currently great demand for First Nations arts and crafts.

Two other ideas of the Fur Trappers Association is a justice trap line idea, which would take offenders out on the land to heal and learn the traditional skills of living off the land; and ecotourism, which doesn't take anything from the land, ideally.

The second recommendation is cultural revitalization. Culture is that delicate space of interconnections between place, identity, and health. Participating in traditional activities such as paying for harvesting medicines with tobacco, or hunting, fishing, and harvesting berries makes people feel good. Culture camps are a promising beginning. Inviting Elders to come speak at the schools is also another promising initiative.

The Kwanlin Dun Jackson Lake Healing Centre in the Yukon provided male and female offenders the opportunity to go out on the land as part of a pilot healing program in 2010.

The land-based part of the camp was a central part of the program. Participants said it increased their pride in local history and culture and brought them together as a community that worked and

learned together.

The intergenerational impacts of colonization and internalized oppression are now being felt as lateral violence in many First Nations communities. The inability to trust and work together is a hindrance to community health and well being. Healing programs to combat lateral violence by fostering that community vitality that was critical to survival can be based out on the land.

Efforts to restore language, religious, and communal practices have been understood as fundamentally acts of healing. Returning to the land to take part in traditional activities may then have healing value both for troubled individuals and whole communities.

The third recommendation is educational alternatives. The current education system has not always been beneficial for First Nations communities when it comes to following a traditional lifestyle. The September to June school year timeframe is more optimal for an agricultural, economic society, not a northern traditional lifestyle. Many First Nations organizations in Northern Saskatchewan have reclaimed administration of their K to 12 education systems, changed the school year.

As long as provisions are made for students to meet the provincial regulations there is the potential

to create a school year system, whereby the family that wants to follow the traditional lifestyle can take their children and grandchildren out on the land during those crucial time periods of fall and spring.

Another potential program is to create an educational avenue where traditional knowledge, skills, and language is seen on an equal level as the western-based knowledge paradigm of English, maths, and sciences. Universities grant degrees in Native Studies, but why do First Nations students have to leave their communities to learn knowledge they could have received from their Elders?

Furthermore, when traditional knowledge, heritage, and languages are integrated into the educational system they will empower Aboriginal students.

First Nations educational system could pursue granting the equivalent of grade 12 matriculation in traditional knowledge. Once again, this is a path of decolonization, where First Nations peoples decide whose knowledge has more emphasis within their children's education.

In closing, First Nations communities have been struggling with the many impacts of colonization and are searching for viable solutions for improving the lives of their population, a population that keeps growing.

Connection to the land is a critical component of being indigenous. Providing opportunities for future generations to connect to the land and maintaining the knowledge, skills, and identifying factors that make one indigenous is a responsibility First Nations organizations need to heed.

It is important for First Nations communities to be able to offer their members the opportunity to participate in the bush economy and to supplement their incomes with traditional land use activities, and we can't do that if the land is not healthy.

Thank you.

**THE CHAIRMAN:** Thank you.

Questions, Dr. McEwan?

**MEMBER McEWAN:** Thank you. That was fascinating.

I see you've published on cancer in Woodland Cree community. I don't know if you were in for the conversation we had earlier about cancer in First Nations communities. Do you have any insights that would help understand the -- I'd be very interested in reading your paper anyway. But just any insights that would help us understand the relative incidence compared with non-First Nations communities and the prevalence in the



overall population?

**DR. ROBERTS:** With all due respect Commissioner, you're asking me to remember something I wrote in 2004.

Yes, it was my dissertation and my Master's Degree was also in relation to the incidence of breast cancer and exposure to herbicides and pesticides. So the data that I had back then was from 2003-2004, and at that time the incidence of cancer in First Nations communities was lower than the general Canadian population and significantly lower.

The trend in the types of cancer, what was being seen in First Nations communities were relatively rare types of cancer, and yet I think the connection that I found was that as more and more people became modernized the types of cancer that were being seen in the general Canadian population were also the ones that we're seeing in First Nations, and that's breast cancer, prostate cancer, and colon cancer.

So they were starting to mimic the types of cancers that are being seen in the general Canadian population as we start to adapt more of the modernizations sedentarization.

**THE CHAIRMAN:** I don't know if you were here when Dr. Irvine presented his findings, but I guess

what I'm looking at, we are the Canadian Nuclear Safety Commission so I'm trying to bring you into our space.

And is there any reason to associate some of the health issue you were referring to with a nuclear or mining activity, or is that a call to -- back to nature and forget about all those mining activities?

**DR. ROBERTS:** I came in kind of in the middle of the PAGC presentation, so I didn't hear Dr. Irvine's presentation.

And I know you're trying to bring me into your circle, which is why I figured I'm an odd duck because I'm presenting on health -- of living on the land. But as I mentioned before, everything is interconnected, and one of the suggestions that I had was -- and I know that the uranium mining companies have week in, week out, or two weeks in, two weeks out -- in order to go on the land in the spring or the fall it usually requires six weeks.

So I was trying to figure out, I was trying to do the same thing as you, President, is trying to figure out, okay, how is this going to, you know, connect to the hearing that I'm actually being part of.

So one of the ideas that I had is would the mining companies be willing to look at extended holiday time for their employees so they can take that six weeks

and go live on the land and trap in the fall or in the summer or in the fall or the spring and not have to worry about losing their jobs.

And my final statement was that in order to be able to live on the land and be healthy, the land has to be healthy, which means the environmental impact and the assessment. How is he going to interact with the animals, how is he going to interact with the water, and we've heard presentations and comments on the work that Cameco has done to try and ensure that the water is as safe as possible.

So I think those are probably the closest I could get to discussing what it is that you guys are talking about here.

**THE CHAIRMAN:** Monsieur Harvey?

**MEMBER HARVEY:** I don't know if you have been here all day long, if you assisted to our discussion in the question and answer, and my question is to what extent the -- what you -- what has been brought in front of the Commission today and the submission is aligned with your recommendation or interfere with your recommendations?

**DR. ROBERTS:** The reports that I heard back -- and yes, I was here all day, so my condolences to everyone who is still here, because these chairs are hell

on the back ---

( LAUGHTER/RIRES )

**DR. ROBERTS:** --- is that the concerns with the environment, in order for the land to be healthy, is what I heard, and from my Chief, Chief Tammy, and also from PAGC, they talked about the economic impact, and that is also part of the health determinance and the social well-being.

And there are many components to what being healthy is all about. And in the current economy, for me to fly to my traditional trap line at Hickson Lake, a Turbo Otter costs \$1,300. So it actually costs more for me to fly 50 air miles from Otter Lake to Hickson Lake, than it is to fly from Saskatoon to Halifax, hell, even Saskatoon to Hawaii.

So, you know, it's the economic benefits, and in order to be able to afford for me to go to the trap line I need to have that financial base, I need to have that economic stability.

So those were some of the things that I heard in connection to some of the speakers.

And it's been a long day, and my brain's not working anymore. I'm sorry.

**MR. WILLY:** Sean Willy, for the record.

I just wanted to add some context to

Dr. Roberts' presentation and her question around extra time off to engage in cultural activities.

And that's the unique factor with our one-in-one and some contractors work a two week in, two week out schedule, coupled with the three week's holidays they get a year. And a lot of our northern workers do take time off to go on to the land during the spring seasons and utilizing the three week's holidays they get per year. So working on one-in-one, you work 26 weeks of the year, half the year, with your three week's holidays you work 23 weeks of the year.

So it really accentuates and allows, plus the wage that our employees are making, can accentuate the traditional activities because the price of gasoline hasn't gone down in 20 years. The price of weld aluminum boats hasn't gone down in 20 years. The price of .303 rifles hasn't gone done.

So just -- let me digress. A story we had, engaging our Australian Aboriginal friends, and during the uranium development, they had questions about can you keep your traditional activities in place while engaging in mine development. And the best story to tell that was in Northern Saskatchewan.

So two years ago, we flew 12 Aboriginal Australians from the middle of the desert to come up to

Northern Saskatchewan, where they thought it was an ocean with islands, and they talked to community members and they realized that this balance can exist.

They saw that community workers who were engaged with the mining operations got to keep their traditional activities in place because they were supported by a wage-based economy, and they saw that these things were in balance and they felt a lot more comfortable moving ahead with their own progression in Australia.

So those opportunities do exist at our mining opportunities -- at our mining sites.

**THE CHAIRMAN:** Thank you.

Anybody else? Questions?

I have one. I'm fascinated by the medicine wheel, no beginning, nor an end, but how do you know if you're deficient in one of those quadrants?

**DR. ROBERTS:** That requires a lot of self-knowledge, and the -- one of the ways that I've heard breaking up the word dis-ease, is D-I-S and then E-A-S-E. So if you're not at ease with your body then you get sick.

So the connection is, regardless of what it is that's going on in your life, sooner or later your body is going to show it. So that's where the -- being aware of who you are, where you come from, what it means for you

to be healthy, is all an individual choice that we all need to work towards to be the best that we each can be.

**THE CHAIRMAN:** Thank you.

And my final remark is I would like to thank you for actually tapping into the participant funding program, we don't get a lot of interest from university and academia. There is some free money and I'm surprised that no more academics coming in and try to do some -- such research in this particular space. So thank you.

You have the final say.

**DR. ROBERTS:** (Speaking native language)

I am grateful for the opportunity to come and present to you, and the opportunity to write this report.

As I said, writing reports is easy, and being the odd duck, I have a PhD, and as of today I just purchased my trapper's license and I'm going to go live on the land for six weeks starting next week.

Thank you.

**THE CHAIRMAN:** Thank you.

I -- actually, you're not the last presenter, there's one after you who's been waiting patiently, I think.

And that is a presentation from a

Mr. Lawrence. As outlined in CMD 13-H13.10 and H14.9 and H15.8.

Mr. Lawrence, please proceed.

**13-H13.10 / 13-H14.9 / 13-H15.8**

**Oral Presentation by**

**Mr. Steve Lawrence**

**MR. LAWRENCE:** Okay, thanks very much. The hour is getting late, and I appreciate you taking the time to hear me. I'll try and keep it short.

I want to confine my presentation to environmental monitoring and decommissioning of the tailings. My presentation is slightly different than my written presentation, so -- but it's along the same lines.

And my reference is more towards future generations and a longer timeline than some of the presentations we've been looking at right now.

But I'll begin with, when I look at the essence of the report on the tar sands monitoring by Shindler and Kelly in 2010, and the follow-up made to the government. The conclusion was that monitoring was not done in a scientific manner. The industries involved were doing due diligence. They were conducting the monitoring that was required of them, however, their approach was not



very scientific in that they were not using predictive models to test out the effectiveness of the environmental management efforts.

As a result, both federal and provincial governments, as well as the major tar sands operations, were maintained -- maintained that their operations had no impact on the environment.

So I decided to consider what I knew about uranium mine operations. The Key Lake facilities are using the ISO 14001 model for their management plan. My understanding is that the 14000 ISO series is a series of programs from environmental management. The 14001 is the basic model which provides guidelines for measures that can be taken by a company but they don't necessarily have to be followed and which can be adapted to suit the needs of the operator.

It does not provide any assessment tools to evaluate or assess the performance of their management efforts.

When I look back at the Beak study which was conducted in Hidden Bay in 1985 by the Rabbit Lake mine in which utilized that ores had been collected since 1974 under the watchful eye of environmental departments of both the federal and provincial governments, there are at least four red flags that popped up. There is no

consistency in how the data was collected or the way it was reported and many errors in sampling in analytic techniques were identified. Based on this they eliminated most of the anomalous data, both high and low.

To me, if I got some particular high levels in my data, that would be cause to go back immediately and redo the monitoring at that location to confirm the results. Also the fact that there were not more elevated readings should have been the concern because if the pollutants were not in Hidden Bay, the question that should have been asked, where are they and where should they have been looking to verify where they had gone?

Lake bottoms are very soft and mushy. The clam shell sampler used for grabbing up bottom sediment samples gushes water as it's brought to the surface and it would be difficult to define horizons when it is opened up to get a quality sample from a specific layer.

There are samplers now available that will take clean core samples that can be brought up intact without releasing the water so that reliable data can be measured from particular horizons. Based on the data available from, Beak concluded that they could see no discernable trends. Expansion went forward with the minings.

Moving forward to 2006, to prepare this

oral presentation I was looking for some background info and I found some of my assumptions were wrong. I assumed that pretty much all of the uranium could be extracted at the mill but apparently at least five percent remains in the tailings. I also assumed that uranium was a heavy metal and it would settle out in the settling ponds before the mill waste -- before that effluent was released to the environment. That also seems to be not the case.

It is my understanding that once reintroduced, this uranium will have potential impacts on the environment for billions of years. In 2006 before mill water was released to the environment, it seemed -- okay, in 2006 the CNSC found that uranium and uranium compounds were entering into the environment at uranium mine and milling operations in concentrations that may have immediate or long term effects on the environment and biodiversity.

At that time, the effluent being released into the environment at the Horseshoe facility at Rabbit Lake Operations averaged out at 1.7 metric tonnes per year. Also, molybdenum, selenium and likely many other elements. They were asked to clean up their effluent and in 2007 the CNSC added in their report the findings stated that Cameco had managed to cut the uranium released back to 238 kilograms, about 80 percent reduction.

Since 2006, the reduction of uranium has actually averaged out at about 61 percent according to Cameco. This means that over 16 years, about 20 metric tonnes of uranium, as well as quantities of other elements have passed into the environment at this one location. If this had been a one-time release event there would be hell to pay for this. As it is, I think this is a lot and if Cameco cannot account for where it went, that's a problem.

It also concerns me that this much was being passed in the receiving environments and no concerns were being raised. We can collect a lot of data but if it's not analyzed and no concerns are raised, what's the point?

If they have not done it already, they need to do a mass balance analysis using sediment sampling to see if the amount of these materials entering the receiving body is remaining there or is moving on. If it is not there, they need to revise their model to confirm what actually -- where exactly it ended up. They may also want to extend that into more distant timelines to see where that stuff will go in the future as geological processes take further erosional activity.

I'm assuming that they are monitoring the runoff from the waste and the ore piles and the leach from the tailings and I think they should be measuring total

load into the environment and not using surface water objectives which measure concentrations. Concentrations depend on the volume of water and in the case of radioactive elements may not be a good measure of impact on the environment. Dilution spreads the effects over a wider area.

If the monitoring of emissions into the air and water are accurate, we will know the load onto the environment and we should be able to predict the impacts. If the impacts are other than those expected, their models need correcting.

For instance, I have heard stories that animal life is much scarcer in the regions surrounding the mines or that northern pike eggs have been found deformed around Key Lake or the caribou no longer migrate down to Wollaston Lake area are much below the territorial border for that matter. If this is true, then what efforts have been made to determine the cause? Is it mortality from some cause from the mine or is it the mine activities or is it something else entirely?

So we need to look at the pathways for radionuclides and heavy metals, air surface water, groundwater, vegetation, effects due to ingestion by humans, wildlife and fish, public health, epidemiological studies of all miners present, past and future and I would

suggest based on the discussions going on today that we should probably be looking at a lot of the population up north as well. But we should be looking at all the physical and chemical linkages to help determine aerial extent frequency duration and certainty of predictions.

And finally to me, what is even more important than what is going on in the present, although the accuracy of our predictions now reflect our predictions for the future, it's the fate of our tailings. To me the big difference between the quality of the material and the mill tailings and those from waste reactor is our mill tailings are not as radioactively hot or excited. They both contain long-lived toxic radioactive material. The tailings are going to have to be monitored in perpetuity and that was declared by the 1997 report by the joint federal/provincial panel on mine development in northern Saskatchewan that was concerning cumulative effects on operating mines as well as considerations for the Midwest and Cigar Lake mines.

The difference in the way we propose to handle them is nuclear waste management organization wants to bury the nuclear waste deep underground where hopefully they will never be able to find their way back into the environment. The mines want to leave the very fine more chemically mobile mill waste on the surface where they

will certainly be exposed to the environment.

La Ronge is built on bedrock of the Canadian Shield. We know that it was once a mountain range so we know that the bedrock gets worn down by weather and carried away. Probably disposing of the mill waste in the surface tailing area is the most economical, efficient and safest way to handle the waste in the short term but over the long term I think it's a recipe for disaster and what we're doing is just delaying the release of all of this material into the environment around the mines.

Yes, in short term we can design the capping and tailings to drain away from the tailings but I don't know what Cameco's vision of the tailings area is. But my vision, best case scenario, even if we manage the tailings and maintain them for hundreds or thousands of years, is we would find bedrock around them worn away and be forced to move the tailings to another site to forestall the ultimate destruction by erosion of the tailings facility.

Remember the tailings still contain about 85 percent of the radioactive material that were in the ore body but we didn't want. They also contain about five to ten percent of the uranium still, which could not be separated from the ore.

It concerns me that when developing

operations go forward without proper foresight and the anticipated expansion of tar sands operations will bring increased levels of acid rain that will acidify large areas of lakes and forests in Northern Saskatchewan.

So in conjunction with what Rose was just saying, that's a major concern. But when you look at the mill waste that's being released also, that's going to impact generations much farther into the future even.

So anyway, I really don't think that the future generations deserve to have this stuff released if we're not sure what the pathways are into the far distant future.

Thank you.

**THE CHAIRMAN:** Thank you.

You raised some interesting questions. Who wants to go first? Everybody must be getting tired.

**MR. LAWRENCE:** I can't blame them.

**THE CHAIRMAN:** Well, let me start.

First of all, would you or Cameco like to comment on some of the issues associated with the Horseshoe uranium release, what is the pathway? How do you measure the receiving environment? Just reconfirm or try to explain and deal with some of the issues that have been raised?

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



the record.

And I'm going to ask Kent England to touch on our ecological risk assessment and human health risk assessments that are undertaken in relation to our operation and with respect to the ecological risk assessments, the regular updates of those.

I think it's important to, in the comparison, to understand the role that the metal mine effluent regulations play in the current regulatory regime. There, we have a very set parameters that involve environmental effects monitoring and a detailed plan that is reviewed by a technical advisory panel that includes representations from the CNSC, Environment Canada and the Province.

But with that, I'll hand it over to Kent on the description of our ecological risk assessment work.

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

I guess first I'll start with the monitoring programs. There's extensive monitoring programs. You mentioned the Ekman dredge versus the Tek Ops core. Tek Ops core is what's used now. We can get those finer sediment layers that you were discussing. That was started to be used in about '98. So I would agree with you on the Ekman dredge. So I'll start with that.

And then you had also mentioned more regional type programs. We have Kevin McCullum here from the Province that could talk to the Boreal Watershed Initiative. That starts at the west side of the Province and works its way across. So maybe at the end we can discuss that.

But I guess to begin with, as we discussed, we have extensive monitoring programs with the Horseshoe Creek drainage. We do sediment to fish, benthics. We also use specialty programs that look at furbearers, avian studies, and all that feeds into site-specific, I guess, body counts or body loads of benthics, like the bugs, and all that feeds into a site-specific model that's built for the human health risk assessment and the ecological risk assessment.

So all that is - we do have scientific models. I'd say they're some of the best in the world. We're required to have these models and we're required to review them on an ongoing basis.

**THE CHAIRMAN:** Staff, you want to answer some of the - at least criticism maybe in the methodology, the historical methodology and what's different about today?

And he did mention this mass balance, so you know where everything is. I wonder if you want to

comment on that?

**MR. MCKEE:** Malcolm McKee with the Directorate of Environment and Radiation Protection and Assessment.

Mr. Lawrence brought up some very important points that I'd like to address. First of all, with the mention of the environmental management system and the ISO-1401 certification. When the NSCA, *Nuclear Safety and Control Act* came into force in 2000, we received, actually, a new mandate. For the first time, the nuclear regulator in Canada had a specific mandate for the protection of environment, and not just human health, and for the protection of environment with respect to not only nuclear substances but hazardous substances.

At that time, we essentially had a clear slate on how we were going to develop this framework. One of the first steps was we were looking at having to have an integrated program of environmental protection that managed all of your elements, your monitoring programs.

A monitoring program should not be just a collection and report system. You have to be looking at your data, analyzing your data and responding to your data.

That's why we were uncomfortable with just allowing companies to be ISO-certified, because as was

mentioned, an ISO certification program says you identify what you do, then you plot out what you do to make sure you're doing what you said you would do. But is what you do correct?

And the first step was -- and the most important element of an environmental management system is the identification of your significant aspects.

We started with saying, "If your EMS does not link your significant aspects to your environmental risk assessment, then it's not doing the job."

So since we had the benefit of nuclear facilities, all nuclear facilities triggering CEAA, they would have to do environmental impact assessments. We chose it as the core tool for environmental regulation to be the environmental impact assessment, and within the environmental impact assessment is your human health risk assessment and your ecological risk assessment.

We developed an approach where the models and the predictive models from your human health and your ecological risk assessment were then to be used to design our monitoring program. Your monitoring program was then to collect the data you needed to test your predictions, and then your data was to be put back into your models for assessment of whether those predictions were accurate or not.

That's how we ended up finding - that's how we've ended up identifying and responding in an adaptive risk management approach to non-traditional contaminants that most other mine sites were not investigating or even monitoring, for example, selenium, which is now being looked at being added to the metal mining effluent regulations because it's showing up in other mines as well.

That's been the framework we were moving towards. We're now proud to be able to say that we've been moving towards that and evolving that framework, but now we have it documented. So in the last three years, we've come out with three Canadian Standards Association documents in the environmental protection series all focused around using your human health and ecological risk assessment to design in a cyclical manner and a responsible manner your monitoring program and your environmental protection program.

So we now have the series of N288.6 which is the environmental risk assessment. It provides guidance and a framework for licensees on how to do a properly designed risk assessment, how to interpret it.

N288.5, Effluent Monitoring Program, which again is supposed to be making sure that you're identifying the elements in your effluent that require

monitoring, not just because your licence tells you to monitor it, but also because your risk assessment tells you you need to monitor it.

N288.4, environmental monitoring programs, how to use your risk assessment to design your monitoring program and feed it back into your risk assessment.

Now, with this full package and part of N288.6, your environmental risk assessment is a requirement now within that CSA standard to actually re-inform and redo your ecological and your human health risk assessment within a minimum of a five-year cycle.

And with the implementation of these documents providing more technical and a more structured framework that will fit into the SOE process that has always been going - that has been used at the sites since the FEARO Panel Review recommendations. We're now going to move another step forward where the status of the environment document and reporting proved a very useful tool to make sure we were staying focused, but it tended to be more of a qualitative tool.

Whereas now with the series of indicated standards and guidance documents on how to do this whole framework integrated, it will shift the status of the environment reporting into a more qualitative and technically scientifically defensible approach for helping

people make the right risk management decisions within their environmental protection programs.

**THE CHAIRMAN:** Mr. Lawrence, did that make you feel better?

**MR. LAWRENCE:** Say again, please?

**THE CHAIRMAN:** Did you get some comfort from that explanation?

**MR. LAWRENCE:** Partially. I guess part of my problem is we've got 20 metric tonnes of uranium sitting in Horseshoe Bay or wherever that - I forget the name of the pond there - and that pond is not going to be there 200,000 years. Now all that 20 metric tonnes is going to be somewhere else.

**THE CHAIRMAN:** Cameco or staff, you want to react to that?

**MR. MOONEY:** It's Liam Mooney, for the record. Perhaps I'll ask Kent England to give a bit more context. But I think the overarching pieces touched on in the discussion around those ecological risk assessments and that with those, along with Cameco meeting all of our regulatory requirements and our discharge, we're confident that we remain true to our commitment about protecting the environment as well as the health and safety of the public and our workers.

**MR. ENGLAND:** Kent England, for the record.

I guess I'll go back to the last wandering cycle here where we've seen, with the recent improvements over the licensing period -- before licensing period, sorry, we've seen a three-fold decrease, actually, in the uranium values in Horseshoe Pond.

I think it is important to take it back to the main receptor. Hidden Bay was protected before. With these improvements, we are even more confident that Hidden Bay will be protected in the future.

**THE CHAIRMAN:** Can somebody give a straight answer to the question are they -- all the cumulative over the years, uranium, the deposit, does it now cause measurable exceedance or concern in the receiving environment? Staff?

**MR. MCKEE:** Malcolm McKee. One of the main, as Mr. Lawrence said, one of the main drivers on the action and the licence condition placed by the Commission on the Rabbit Lake mine site was the determination that the level of releases of uranium was causing an unreasonable risk to the environment. And that's why the licence condition was placed in treatment. Substantial treatment and reduction was required.

**THE CHAIRMAN:** I know, but what about the stock? You're talking about the incremental coming in every year. What about the whole stock that was there



from the get go?

**MR. MCKEE:** The -- that conclusion was primarily related to the actual concentrations within the sediments as posing a risk to benthic invertebrates in Horseshoe Pond itself. So that -- so it wasn't so much, the decision was not so much based on the overlying surface water, but on the accumulation.

And we have the numbers on the accumulation of uranium and the sediments of Horseshoe Pond and the resulting and overlying water exposure and poor water exposure to benthic invertebrates, which was confirmed by some research out of University of Saskatchewan as well.

**MR. ENGLAND:** I'd like to add to that. That is put into the model. Like this load is not forgotten. The load is put into the model, the numbers are inputted into the model. We see burial over time of clean new sediment put on top. And you see that similarly in deeper. But the model does account for what's already there.

**THE CHAIRMAN:** So I'm just trying to understand. So will this, the Horseshoe area over there, will that have to be mitigated or now the sediment over that will be the final solution? Let me put it in crude terminology.

**MR. MCKEE:** Sediments in Horseshoe Pond

right now have -- we have -- we believe an alteration of the benthic invertebrate community, but there is a stable benthic invertebrate community there.

In the end game, these -- you've got to remember that Horseshoe Pond is -- without the effluent flowing at Horseshoe Pond, it would probably likely -- that upper stream would probably likely only have water in the spring periods.

So that wouldn't -- without presupposing what decommissioning options would be, it would seem unlikely that you would be able to just leave those sediments or that way for "natural recovery" because once you cut off the water flow to that system, you're going to end up exposing sediments and oxidising them. So there will have to be a decommissioning plan to address that for the upper reach for Horseshoe Pond area.

**THE CHAIRMAN:** Mr. Lawrence.

**MR. LAWRENCE:** Okay. I'm not sure I got my answer what happens to that stuff. You know, erosional forces will just wipe out that area in a couple hundred thousand years, or take 500,000 years, or whatever you want.

And that -- all that uranium and the sediment and all the molybdenum and selenium and all their other stuff are going to either be dissolved and move into

another fault zone that we can mine later on or they're going to be distributed in the environment somewhere.

And that uranium is going to be emitting daughters for billions of years. So, you know, it's not - - to me it's not something you can just forget. What, you know, I'm sorry, but what the hell do you do with that? It's in the environment, how do you get the stuff out? Are you going to guarantee me that it's going to have no effects 500,000 years from now or whatever timeframe you care to put on it?

**THE CHAIRMAN:** But I thought we've already discussed that nobody's walking away. There is decommissioning plans that will hold the licensee responsible for not being able to walk away and deal with proper decommission. What is the proper decommission is yet to be seen.

**MR. LAWRENCE:** Okay.

**THE CHAIRMAN:** Anybody else has -- you have the final word.

**MR. LAWRENCE:** Okay. Well, we talked about the stuff that's being dumped in the environment now. The tailings themselves are going to be there for a long, long time. They do have uranium in it and uranium daughters are going to be present for, again, billions of years.

You know, 10,000 years from now, that

sediment -- that tailings area is still going to have 70 percent of the -- 75 percent of the radiation emitted from it, that and the original ore body. The thorium is going to continue that on for another hundreds of thousands of years and the uranium that's present there is going to take it even much longer.

So how can you possibly guarantee those tailings that they're going to be intact for the time periods we're looking at? It's not imaginable to me and I just don't see how you can ask future generations to take care of that stuff when there's no guarantees.

**THE CHAIRMAN:** Okay. Thank you. Thank you for the presentation. And this brings to the end of the presentations for today. And the Commission will reconvene tomorrow at 8:30 to continue the presentation, as per the agenda.

Thank you for your patience.

**MR. LEBLANC:** And if you did borrow some interpretation devices, please return them to the reception area. Merci.

--- Upon adjourning at 9:46 p.m./

L'audience est ajournée à 21h46