

**Canadian Nuclear  
Safety Commission**

**Commission canadienne de  
sûreté nucléaire**

**Public meeting**

**Réunion publique**

**May 15<sup>th</sup>, 2019**

**Le 15 mai 2019**

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

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

**Commission Members present**

**Commissaires présents**

**Ms Rumina Velshi  
Dr. Sandor Demeter  
Mr. Timothy Berube  
Ms Kathy Penney  
Dr. Marcel LaRoix**

**M<sup>me</sup> Rumina Velshi  
D<sup>r</sup> Sandor Demeter  
M. Timothy Berube  
M<sup>me</sup> Kathy Penney  
M. Marcel LaRoix**

**Assistant Secretary:**

**Secrétaire-adjointe:**

**Ms. Kelly M. Gee**

**M<sup>e</sup> Kelly M. Gee**

**Senior General Counsel:**

**Avocate-générale principale :**

**Ms. Lisa Thiele**

**M<sup>e</sup> Lisa Thiele**

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Ottawa, Ontario / Ottawa (Ontario)

--- Upon commencing on Wednesday, May 15, 2019  
at 9:30 a.m. / La réunion débute le  
mercredi 15 mai 2019 à 9 h 30

### **Opening Remarks**

**THE PRESIDENT:** Good morning and welcome to the meeting of the Canadian Nuclear Safety Commission.

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

I would like to begin by recognizing that we are holding this Commission meeting in the Algonquin Traditional Territory.

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

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

On my right is Dr. Sandor Demeter; to my left are Dr. Marcel Lacroix, Ms Kathy Penney and Mr. Timothy Berube.

Ms Lisa Thiele, General Counsel to the Commission, and Ms Kelly McGee, Assistant Secretary of the Commission, are also joining us on the podium today.

I would like to begin today's Commission

Meeting with a Safety Moment on preventing accidents to pedestrians and cyclists.

Every year a number of pedestrians and cyclists get killed by either vehicles or transit. Ottawa being a major centre, a lot of people use transit. We should remember to always observe the rules and road signage and to be civil at all times.

The trend nowadays is to wear dark clothing, but it would be a good idea to wear brighter clothing when walking or cycling outside, including some reflective clothing as an added precaution.

There are a lot of distractions around us: the weather, lights, our phones, being in a hurry, being in our own little bubble. It makes us take a lot of corners.

It is important to just do a double take, take our time while backing out of our driveways, checking the blind spot on both sides of the vehicle before making a turn, looking twice before crossing the street, et cetera.

Summer is hopefully just around the corner; let's take responsibility for our safety and of the people around us.

Thank you.

I will now turn the floor to Ms McGee for a few opening remarks.

Kelly..."

**Mme McGEE:** Bonjour, Mesdames et Messieurs.  
Mon nom est Kelly McGee. Je suis la secrétaire adjointe de la Commission.

J'aimerais aborder certains aspects touchant le déroulement de la réunion.

For the Commission meeting we have simultaneous interpretation. Please keep the pace of your speech relatively slow so that the interpreters are able to keep up.

Des appareils pour l'interprétation sont disponibles à la réception. La version française est au poste 2 and the English version is on channel 1.

To make the transcripts as complete and clear as possible, please identify yourself each time before you speak.

La transcription sera disponible sur le site Web de la Commission dès la semaine prochaine.

I would also like to note that this proceeding is being video webcast live and that archives of these proceedings will be available on our website for a three-month period after the closure of the proceedings.

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

The *Nuclear Safety and Control Act* authorizes the Commission to hold meetings for the conduct

of its business.

Please refer to the revised agenda published on May 13th, 2019, for the complete list of items to be presented today.

I also wish to note that all the Commission Member Documents, or CMDs, listed on this agenda are available on the CNSC website, except for the Event Initial Report related to security, as outlined in CMD 19-M20. It contains prescribed security information and is not publicly available.

In addition to the written documents reviewed by the Commission for this meeting, CNSC staff and other participants will have an opportunity to make verbal comments and Commission Members will be afforded an opportunity to ask questions on the items before us.

Madame Velshi, présidente et première dirigeante de la CCSN, va présider la réunion publique d'aujourd'hui.

President Velshi...?

#### **CMD 19-M12.A**

#### **Adoption of Agenda**

**THE PRESIDENT:** With this information, I would now like to call for the adoption of the agenda by

the Commission Members, as outlined in Commission Member Document CMD 19-M12.A.

Do we have concurrence?

For the record, the agenda is adopted.

I also wish to note that the Minutes of the February 20th Commission meeting were approved secretarially on April 12th and will be available on the CNSC website in approximately two weeks.

The first item on the agenda is to provide updates to the Commission and the public, in a more formal and documented manner, on items that were discussed during previous proceedings.

These updates can be in response to an Action Item from a hearing or a meeting, such as a request made by the Commission or a commitment made by CNSC staff or a participant.

Kelly, over to you for the first update.

#### **CMD 19-M15**

#### **Submission from CNSC staff**

**MS McGEE:** The first update is linked to an Action Item from the November 8, 2018 Commission meeting, recorded as Action Item #17560. The Commission asked CNSC staff to report in future Regulatory Oversight

Reports the total recordable injury frequency, including data for contractors. CNSC staff filed a memo on March 20th, 2019, as outlined in CMD 19-M15, stating the approach for including this information in future reports.

I wish to note that representatives from CNSC staff are available for questions, as well as a representative, Mr. Craig Axler, who will be joining us by teleconference.

So just to confirm, Mr. Axler, are you online?

**MR. AXLER:** Yes. Craig Axler, for the record, Ontario Power Generation. I can hear you.

**MS MCGEE:** Thank you very much.

**THE PRESIDENT:** So I will open the floor to the Commission Members if you have any questions on the memo or are we ready to close this Action Item?

Ms Penney...?

**MEMBER PENNEY:** Thank you to staff for the memo.

I think there are two issues we are dealing with here.

One is looking at the data that is being reported, whether it is a TRIFR or what is currently in the REGDOC.

The second issue is the inclusion of

third-party contractor data.

The way I understand your memo is that OPG and New Brunswick Power are currently collecting and have the ability to report to us both TRIFR and contractor, third-party contractor data, but that Bruce Power is not a member of the Canadian Electrical Association and does not at this time collect this data and therefore would not be able to report it to us. Is that correct?

**DR. VIKTOROV:** Alex Viktorov, for the record.

Yes, that is generally correct. The data may be available but not necessarily presented as a TRIF parameter.

**MEMBER PENNEY:** Okay. And my understanding is the Canadian Electrical Association currently requires their members to submit this data and that is why OPG and New Brunswick Power has both the TRIFR data and the TRIFR data including the contractor.

**DR. VIKTOROV:** Correct. That's our understanding as well.

**MEMBER PENNEY:** And my understanding of your memo is that because you can't compare Bruce to OPG and New Brunswick Power you are saying that you are not able to provide us this data in the upcoming ROR report?

**DR. VIKTOROV:** Alex Viktorov, for the

record.

Generally, yes, that's correct. As I mentioned, the raw data, the statistics from various injuries may be available, but it is not necessarily presented as a TRIF parameter. It can be done, but currently it is not required and we never enforce this expectation. Nevertheless, for other reasons, Ontario Power Generation and New Brunswick Power do this and Bruce Power currently don't.

**THE PRESIDENT:** Dr. Demeter...?

**MEMBER DEMETER:** Thank you.

I wanted to get a sense from staff when you are looking at this SCA, safety and control area, for conventional health and safety whether you have the same information available from all the operators so that it's apples to apples to apples to apples or is there some nuance differences that you have to try to interpret like based on some data not being available at some sites? I just want to see how consistent is the information you have to rank that SCA.

**DR. VIKTOROV:** Yes, we do currently have the same information for all licensees and that is prescribed by REGDOC-3.1.1. It is very important that we identify exactly our expectation to all licensees and we do collect this data and that allows us to compare apples to

apples. Again, for different reasons for different regulators, a different subset of data may be collected, but that is not our requirement. We require the same data from all licensees.

**THE PRESIDENT:** I see Mr. Burton in the audience. Perhaps we can ask Bruce Power a question.

--- Pause

**THE PRESIDENT:** Thank you.

So for clarification, does Bruce Power collect TRIFR data and does it have information on third-party contractors as well?

**MR. BURTON:** Maury Burton, for the record.

At this time we do not collect the TRIFR data. As we are not members of the Canadian Electrical Association, we have no use for that particular metric. We do have data for contractors, for third-party contractors, but it is only lost time accidents or lost time injuries and first aid treated injuries. That's what we have at this point in time. We can start collecting other data, but going back to collect past data would be very difficult for us to get accurate numbers.

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

So we won't close this Action Item at this time. I am sure the Commission will want to deliberate on this further and that will be reflected in the minutes of

the meeting.

Thank you. And thank you, Mr. Burton.

--- Pause

**CMD 19-M16**

**Submission from Bruce Power**

**MS MCGEE:** The next update is linked to an item action from the May 2018 public hearings on the licence renewal for the Bruce Power Nuclear Generating Stations, recorded as Action Item #14751.

The Commission, with reference to the intervention by Northwatch, requested that Bruce Power provide additional information on its website about anticipated waste volumes due to the planned refurbishment activities. This information is now available on the Bruce Power website since March 29th, 2019, and this information will be reviewed and updated on an annual basis, no later than March 31st of each year.

I wish to note that there are representatives from staff and Bruce Power who are available for questions on this item.

**THE PRESIDENT:** Are there any questions?  
No?

I guess the action is closed and now we

have information available for the public. So thank you, Bruce Power, for providing that.

**CMD 19-M17**

**Submission from CNSC staff**

**MS MCGEE:** The next update is linked to an Action Item from the December 12-13, 2018 Commission meeting, as recorded in Action Item #18712.

The Commission had asked CNSC staff to provide them with more information about the Canadian environmental quality guidelines/criteria for uranium in groundwater and ambient air, and also an explanation for the similarities of the federal drinking water quality guideline for uranium of 0.02 mg/L and the Ontario Ministry of Environment, Conservation and Parks ambient air quality criteria of 0.03 µg/m<sup>3</sup>.

CNSC staff filed a memo, as outlined in CMD 19-M17, addressing these questions and also providing an update on the Derived Release Limits, or DRL, units.

I wish to note that we do have representatives from CNSC here if there are any questions from the Members.

**THE PRESIDENT:** Any questions?

Ms Penney...?

**MS PENNEY:** A quick comment. Very good memo.

**THE PRESIDENT:** Thank you.

Dr. Lacroix...?

**MEMBER LACROIX:** Yes, thank you.

Yes, indeed it is a very good memo and I am very grateful to the CNSC staff for providing once and for all the calculations for the derived release limits.

**THE PRESIDENT:** Thank you.

So can we close the Action Item off?

Okay, Action Item closed.

Thank you.

#### **CMD 19-M18**

#### **Submission from CNSC staff**

**MS MCGEE:** The next update is linked to an Action Item from the December 12-13, 2018 Commission meeting, recorded as Action Item #18709. It had, for the record, been erroneously listed as 18710 on CMD 19-M18.

The Commission inquired as to the International Nuclear Event Scale level that should be ascribed to the personnel contamination event that occurred at Isologic Innovative Radiopharmaceuticals and was reported in the Event Initial Report CMD 18-M65.

CNSC staff filed a memo on February 28th, 2019, confirming that this event will be included in the 2018 report on an INES Level 2 count.

I wish to note that a second Action Item, #18710, was identified as related to this event, but this second Action Item will be followed up at a future Commission proceeding once CNSC staff complete their review, including information about the implementation of the corrective actions.

**THE PRESIDENT:** Thank you. So we're seeking approval from the Members to close Action Item 18709 related to the INES scale. Do we have concurrence on that?

Thank you. That action item is closed.

**CMD 19-M19**

**Submission from Ontario Power Generation**

**MS MCGEE:** Thank you. The last update was filed by Ontario Power Generation to provide follow-up details related to questions asked during the February 20th, 2019, Commission meeting. The questions were related to steam generators as part of the Darlington refurbishment update.

This update is available under CMD 19-M19.

This item was not identified as an action item; however, the information is on the public record in response to the questions raised in February 2019.

**THE PRESIDENT:** Okay, the next item on the agenda is the Status Report on Power Reactors, as outlined in CMD 19-M14.

I note that we have representatives from the nuclear power plants and CNSC staff in the room and also by teleconference. They can identify themselves later, before speaking.

Mr. Viktorov, do you have anything to add before I turn the floor to my colleagues for questions?

#### **CMD 19-M14**

#### **Submission from CNSC Staff**

**DR. VIKTOROV:** Alex Viktorov, we do have an update to the CMD. Quite a bit of things have changed in the few days since then. Again, for the record, my name is Alex Viktorov, and I'm the director of Pickering Regulatory Program Division.

I'm making this update on behalf of Mr. Gerry Frappier, who's the director general of the Directorate of Power Reactor Regulation. With me today are

the regulator and technical managers and staff.

As I said the status update CMD 19-M14 was finalized on May the 9th, and since then there have been a few changes in the reactors' status.

Specifically, for Bruce Unit 2, the cause of the partial fail of the Class II electrical system has since been identified as a failed communication port in the power inverters. The equipment was repaired and tested to ensure it functioned correctly, and Unit 2 safely returned to power and is currently at hundred per cent full power.

Unit 3 also returned to power on May 13th, and as of this morning it was operating at 70 per cent full power.

For Pickering, early on May 10th, Pickering Unit 1 had a failure of one of the two redundant digital control computers. It had a failure in the power supply. The reactor continued to operate as a second digital control computer was controlling the reactor reactivity.

Several hours later, the second digital control computer began showing erratic liquid zone control level indications. The unit operators responded manually by shutting the reactor down as per procedure.

Since then, the faults have been identified. In particular, there were faulty modules in

the digital control computers that have been since then replaced and tested. The troubleshooting and repairs are now complete and the unit is expected to return to power later this week.

We also have a further update on the KI Pill Working Group. The terms of reference have now been signed by all signatories, namely, the CNSC, OPG, Office of the Fire Marshal and Emergency Management, and the Ministry of Health and Long-Term Care Ontario. So we're ready to proceed to the working group activities.

For Point Lepreau, the steam leak identified at Point Lepreau has been repaired.

On May 14th, while the reactor was returning to full power, a fire-resistant fluid leak developed on a valve on the secondary conventional side of the plant. The fire-resistant fluid supplies hydraulic power to operate valves. As a result of this leak, operator tripped the reactor. The leaked fluid was contained and there was no effluent to the environment.

Repairs have been since completed, and the unit is currently synchronized to the grid at 35 per cent power.

With respect to the work injury at Point Lepreau, WorkSafe New Brunswick completed the investigation and determined that there were no contraventions. However,

the date the injury occurred is incorrectly stated in the status report. The date is in fact May 3rd.

And this concludes the status report update on power reactors. We are available to answer your questions.

**THE PRESIDENT:** Thank you. I will now open the floor for questions from Commission Members.

Ms Penney?

**MEMBER PENNEY:** Lot's of things to ask questions about. I'll start with Bruce, the Unit 2 power failure.

When you say it was a failed communications port, what do you mean?

**MR. BURTON:** Maury Burton, for the record.

In this piece of equipment, it's basically an inverter, which takes direct current and converts it to alternate current, is essentially we power Class II off of our Class I system, so if we do have a loss at Class IV, that this power isn't interrupted.

So what the inverter does is does this -- the power conversion to supply the instruments. And this communications port was on a circuit board and it was a circuit board failure, essentially, that we had.

**MEMBER PENNEY:** Does that mean there's no backup for it?

**MR. BURTON:** There is a backup.

Unfortunately, the backup failed shortly after it went into service. And that, there were a couple blown fuses in that. The investigation was taken and there was additional maintenance done on that inverter as well.

We do have a backup Class III system, but once we've had these two failures, the operators took the conservative decision to shut down the unit to investigate. So they could've maybe saved the unit, but in this case, where we've had two failures concurrently, we want to make sure that we put the unit in a safe state and investigate the cause of the event.

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

**THE PRESIDENT:** Mr. Berube?

**MEMBER BERUBE:** Just while we're on the Bruce topic, just out of curiosity, a dual failure like that on Class II is pretty significant, I would think. So the issue is trying to figure out what the cause is on that and whether or not that translates to the remainder of your units?

**MR. BURTON:** Maury Burton, for the record.

Yes, and we'll be taking that circuit board and doing forensics on it to look at the cause and the cause of the fuse failures in the second inverter to ensure that we understand that and adjust our maintenance

and preventative maintenance programs appropriate to ensure that we don't have this occur on other units.

**MEMBER BERUBE:** And with regard to Unit 2, I guess the transformer is still on order, I would think, for the replacement unit?

**MR. BURTON:** Maury Burton, for the record. I'm assuming you mean -- referring to TSSA. That was on Unit 8. Yes, it is on order and we expect it in the December time frame of this year, and expect to have it back in service by early 2020.

**THE PRESIDENT:** Dr. Demeter?

**MEMBER DEMETER:** Yes, I had a question about the KI Pill Working Group.

I looked at -- the terms of reference have been evolving, and but the membership of the signators are OPG, Ministry of Health and Long-Term Care, Office of the Fire Marshal and Emergency Management.

I understand there's a public review process. But are there any other stakeholders on the committee itself, especially representative of those that are most affected by the outcome to this group and the policy that we set -- the school board, the City of Toronto? This seems -- I was looking to see that there's a little bit more inclusion of stakeholders that might contribute to this.

**DR. VIKTOROV:** Yeah, Alex Viktorov.

Absolutely. We do understand there is a strong public interest in this activity, and there are groups affected by whatever actions may arise from this working group. So yes, we have various players engaged and Lee Casterton will provide more details on the -- how we do that.

**MR. CASTERTON:** Hi, Lee Casterton with the Directorate of Power Reactor Regulation.

So the working group, as you mentioned, does have the four signatory bodies. There is also going to be the public health units from the area as well as the emergency management coordinators from the areas and Health Canada. So that will form the working group body.

At the same time, we have the CNSC Advisory Committee, and that's where we're engaging with a number of NGOs as well as the Toronto District School Board and the Toronto Catholic School Board.

**MEMBER DEMETER:** Well, thank you. That helps. Yeah, I didn't want them all to be lumped into this public consultation, so they have an active role in the process more so than just replying to the -- thank you.

**THE PRESIDENT:** Dr. Lacroix?

**MEMBER LACROIX:** Thank you.

This is a question for Bruce. I read over

here that the outage was extended for Unit 3 to replace a pressure tube. What was the reason for replacing the pressure tube? Normal wear and tear or another ...

**MR. BURTON:** Maury Burton, for the record.

During our inspection campaign on Unit 3, we found -- in one pressure tube, we found that one of the garter springs had moved between our past inspection. Because of the -- where the -- the amount of movement, we actually expanded that inspection to ensure that we understood and that this wasn't just an outlier.

And during that expanded inspection, we found one pressure tube that was in contact with the calandria tube. So we did take a look at this and fitness for service guidelines and made the decision that based on fitness for service guidelines we could not make a case to return that pressure tube to service. So the decision was made to replace it.

**THE PRESIDENT:** I have a question for OPG on the Darlington Alpha Event follow-up.

So investigation found that the source of activity was due to removal of foreign material from inside the header. So, is this something that can be avoided? How are you managing this particular risk going forward?

**MS DUARTE:** So, it's Mary Duarte, for the record, the Director of Radiation Safety.

We've conducted an investigation around this issue. We immediately, of course, had people in plastics when they were working near the header and we have reviewed the event with our staff or any changes to work plans, et cetera. We believe that we have the right controls in place, we believe that we have learned from these lessons and we have the right PPE to prevent any ALPHA uptakes.

**THE PRESIDENT:** So, when further down you say you have an issue to add the appropriate revisions to your program, I don't know whether this is your ALPHA dosimetry program or just your overall RP program.

What are some of the revisions that you have implemented or are planning on implementing?

**MS DUARTE:** So, it's Mary Duarte, Director of Radiation Safety, for the record.

We have benchmarked our ALPHA dosimetry program within the Canadian nuclear industry and the U.S. nuclear industry as well. We have made two enhancements to our ALPHA dosimetry program. We have essentially immediately implemented that for any ALPHA positive path we would conduct a fecal sample, so that aspect of the benchmark has already been implemented, in fact, it was implemented immediately after we detected an ALPHA positive path.

In addition, we are preparing to implement a random fecal sampling. We are in the middle of conducting that assessment in terms of a changed management plan and we plan to start that program by September the 30th of this year.

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

Ms Penney, any additional questions?

Mr. Berube?

**MEMBER BERUBE:** I might have a long question pertaining to the update we got this morning with regard to Pickering on the DCCs, the digital control computers.

Just out of curiosity, is a root cause analysis being done on that, where are we on it, and if it is in progress because of the potential implications of the DCC issues it would be good if the Commission could hear at some point in the future what is being done with regard to this.

**DR. VIKTOROV:** Alex Viktorov. I'll start, maybe OPG will provide additional information.

As any event, a root cause will be conducted and submitted to CNSC, as I understand CNSC will review it, and we also expect that the extent of condition will be conducted as well to understand how the units may be affected or indeed across the Canada fleet and once we

have this information we will be ready to provide update to the Commission.

**MEMBER BERUBE:** In general, I'm just very curious about aging management on the DCCs and how that actually is being effectively managed across the fleet.

**DR. VIKTOROV:** Thank you. I will take this for a future date.

**THE PRESIDENT:** Mr. Viktorov, for mine and I suspect the public's benefit, so what are the safety implications of this incident or potential safety implications?

**DR. VIKTOROV:** Again Alex Viktorov. Digital computers are important to control the reactor power and it's done by several ways and the computers are redundant, there are two fully capable computers that can work totally independently of each other so if one fails the other can safely operate reactor.

In case of any significant disturbance, there are two shutdown systems that can act automatically and bring the reactor down safely. The reactor can also be shut down manually when operator sees any indications of any transients or parameter as being out of range which essentially happened in this case.

So, specifically there was no impact neither on workers, public or environment. There were no

releases of radioactive material as there were no limits exceeded, but having one of the safety-related systems not operating properly, it's important to react quickly and the licensee has done so.

Generally, we are satisfied with the immediate response and, as I said, we will review the event information when it will be provided.

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

Anyone with any additional questions?

Thank you. Thank you for the update.

**CMD 19-M13**

**Written submission from CNSC staff**

**MS MCGEE:** The next item is the event initial report regarding uranium in groundwater monitoring well at Cameco Corporation's Key Lake operations as outlined in CMD 19-M13.

Mr. Liam Mooney and Mr. Daley McIntyre from Cameco Corporation are joining us by teleconference to be available for questions.

Ms Tadros, do you wish to add anything before moving into questions?

And Mr. Mooney and Mr. McIntyre, can we confirm you're online?

**MR. MOONEY:** It's Liam Mooney and Mr. Daley McIntyre here. We can hear you, can you hear us?

**MS MCGEE:** Thank you very much.

**THE PRESIDENT:** Ms Tadros, did you want to add anything?

**MS TADROS:** Yes, thank you. Good morning, President Velshi, Members of the Commission. For the record, my name is Haidy Tadros, I am the Director General of the Directorate of Nuclear Cycle and Facilities Regulation.

For this item I have colleagues here in Ottawa as well as in the Saskatoon regional office who are available to take any questions the Commission may have.

We are here to provide information on the discovery of uranium concentrations in a groundwater monitoring well within the licensed area at Cameco Corporation's Key Lake operation.

As described in CNSC staff's event initial report, the elevated uranium concentration is limited to one monitoring well and has not been detected in any of the surrounding wells or any other monitoring locations on the site.

With the discovery of the elevated results and the subsequent posting of the information to both Cameco and CNSC's web pages that occurred in 2018, only

recently has this event gained media coverage.

During an April 2019 community meeting, interested Indigenous community representatives, Cameco and CNSC staff further discussed the event. Given the Indigenous, public and media attention on this matter, CNSC staff determined it would be important to communicate this information to the Commission in a public proceeding so as to address any questions that you may have.

As noted in CNSC staff's event initial report, this event did not result in any kind of dose to the public or the workers and there were no impacts to the environment.

The details of CNSC staff's actions and the licensee's actions taken thus far are also detailed in the EIR.

CNSC staff will continue to engage with the communities and answer any questions they may have including in an upcoming Environmental Quality Committee meeting. We will also be providing further information and any updates related to this event during CNSC staff's regulatory oversight report on uranium mines and mills in December of 2019.

So, thank you for the opportunity to provide this statement. We are available to take any questions you may have.

**THE PRESIDENT:** Thank you, Ms Tadros.

Mr. Mooney, do you wish to add anything before we open the floor to questions?

**MR. MOONEY:** Thank you. I would like to add a little context as well.

Good morning, President Velshi and Members of the Commission. For the record, my name is Liam Mooney, I'm the Vice-President of Safety, Health, Environmental Quality and Regulatory Relations at Cameco. I'm joined today by Daly McIntyre our Manager of Safety, Health and Environmental Quality at Cameco's Key Lake and McArthur River operations.

I wanted to start by emphasizing that Cameco's highest priority is for the safety and health of people and the protection of the environment.

With respect to today's agenda item, as you have read, our monitoring of groundwater near an onsite mill building identified an increasing trend in uranium concentration. We then reported it to CNSC staff and our provincial environmental regulator.

Groundwater in this area moves slowly and our monitoring shows that this event is localized to the mill area. We have no indication that the incident is affecting nearby lakes and there are no wells used for drinking water in this area.

In accordance with our management system and the provincial environmental code, we are investigating and working with third party experts to understand the issue and develop an appropriate action plan.

In addition to posting this event on our website, Cameco is keeping local people informed through environmental and engagement committee meetings, communications with local leadership and, as Ms Tadros referred, a community meeting that was held in April.

Going forward we have regularly scheduled meetings where we are committed to communicating further once our plan is developed.

We are available to respond to any questions that you might have in this regard.

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

We will open the floor to the Commission Members for questions. Mr. Berube?

**MEMBER BERUBE:** I am just looking at the topographical picture here of the actual site, which is very good, thank you for providing that.

But it's kind of curious that the sampling well is actually upstream of the predominant water flow, if I'm reading this image correct. Is that correct?

**MS TADROS:** Haidy Tadros, for the record. Yes, you are correct.

**THE PRESIDENT:** Dr. Demeter?

**MEMBER DEMETER:** Thank you. I just wanted to clarify one thing and ask a question. So, as I understand it, and I'm reading between the lines in this report, that the building is not in routine use but due to the routine adding the water to reduce radon activities, it was that activity -- that preventive maintenance activity of adding the water that allowed this to seep through versus routine activities in that building.

**MR. FUNDAREK:** Peter Fundarek, for the record. Yes, that is correct, it was due to past practices where material was allowed to be on the floor that allowed for contamination of the concrete to occur and as a remedial measure they put water on the floor to reduce the radon rates.

**MEMBER DEMETER:** So, I guess the one question I have given the half life of the uranium and the volume, are there any geo hydrological consequences down the road where this packet makes its way through the system?

**MR. FUNDAREK:** Peter Fundarek, for the record. The situation is not yet finalized. Cameco will be undertaking a series of monitoring activities this summer to better characterize the distribution and extent of the underground contamination and then developing a plan

for remedial actions to be taken to try and remove that material from underground.

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

**THE PRESIDENT:** Dr. Lacroix?

**MEMBER LACROIX:** You mentioned that well MT-802, which is responsible for the leak, is situated next to the molybdenum extraction building.

Could you tell us more about the molybdenum extraction building?

**MS TADROS:** Haidy Tadros, for the record. Perhaps Cameco can provide a description of the activities that occurred in the building. Just in terms of clarity, the well that the contamination was found in, it wasn't because of the well, it was the contamination occurred due to the concentrations of uranium in the concrete and that seeped into the well, which was a holding well. So the well is intact, we are just categorizing how much of that concentration is there.

But perhaps Cameco can provide some details as to the activities in the building.

**MR. MOONEY:** Liam Mooney, for the record. I just wanted to clarify that the monitoring well 802 is down-gradient from the moly removal circuit that is the source, or a likely source in that regard.

With respect to the moly plant, as it's referred to, it is part of our process to sip out molybdenum which has, for Cameco treatment purposes, behaves much like uranium. So this particular part of the facility is designed to remove molybdenum from the uranium solution.

**THE PRESIDENT:** Ms Penney.

**MEMBER PENNEY:** Thanks. So I'm glad to hear that Cameco's going to undertake some monitoring this summer and that there'll be additional remedial actions, and I expect that we'll be updated on that when the incident investigation is complete.

A question for CNSC staff. Is there any intent to go and do the independent environmental monitoring program this summer, this year, to confirm that there are no impacts outside the fence line?

**MS TADROS:** Haidy Tadros, for the record. So we did not have on our plan an independent environmental monitoring program to take place this summer for that specific site. Again, as within our EIR, the situation is within the licensed area and as, Commissioner Penney, you are aware our IEMP does look outside of the licensed location.

But perhaps I could ask our colleagues in the environmental protection group to provide any elaborate

discussions that they may have on this?

**MR. RINKER:** Mike Rinker, for the record. I'm the Director General responsible for Environment and Radiation Protection and Assessment.

So an occasion like this, it's directly on the licensee's responsibility to conduct these sort of investigations. The type of work that we do under the Independent Environmental Monitoring Program wouldn't have this as a kind of objective. We would be looking at areas for which Indigenous or the public would be accessing to make sure that they would feel protected in the areas for which they frequent, and this lies solely on Cameco.

**MEMBER PENNEY:** So what I hear you saying is you would expect Cameco to look at outside the fence line potential impact and include that as part of their monitoring that they would be doing to follow-up this summer?

**MR. RINKER:** Mike Rinker, for the record. So we would expect them to delineate where that contamination is, and find out where the extent of that contamination ends, that's where we would expect them to look at.

**MEMBER PENNEY:** Right. I guess just that's different than actually giving the public some comfort that there are no impacts to any of the harvesting

activities they might have outside the fence?

**MR. RINKER:** Mike Rinker, for the record. Yes, I think there is and Cameco does have a very robust environmental monitoring program that covers those sort of areas, that does fall under the purview of the Eastern Athabasca Regional Monitoring Program, which is a provincial and industry-led program, sampling done by the Indigenous folks who look at their country food, such as berries and fish. So those results are published on the Saskatchewan website.

**THE PRESIDENT:** Mr. Mooney, did you want to add anything before we conclude on this item?

**MR. MOONEY:** Yes. I would just add in that regard that we do have groundwater recovery wells on the edge of the mill terrace, and we're not seeing the uranium in those wells. So in that regard we do have some further assurance that the well, the monitoring well, had detected an issue that we need to investigate and implement a corrective action plan around. But there is that assurance in relation to the event, as will be provided to the public.

As Mr. Rinker referenced, we do have broader environmental monitoring pieces that are also in the public domain and discussion around the performance of the facility, and that country foods remain safe to eat and

the water remains safe to drink further afield from our facility.

**MR. RINKER:** Mike Rinker, for the record. If I could just add. We will be reviewing the results of what Cameco does, and if we're not satisfied we will be requiring more work.

**THE PRESIDENT:** All right, thank you. This concludes the public portion of the meeting of the Commission. The Commission will hold an in-camera session tomorrow on a matter related to safety and to security.

Thank you all for your participation. The public hearing on the application by Orano Canada Inc. for the renewal of the decommissioning licence for the Cluff Lake project will begin in 15 minutes, at 10:35 a.m.

Thank you.

**MS MCGEE:** If you borrowed interpretation devices and are not staying for the following proceeding, remember to return them at the reception and claim your identification card.

Thank you very much.

--- Whereupon the meeting concluded at 10:18 a.m. /

La réunion s'est terminée à 10 h 18